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The Concept of Organism in the Philosophy of Hans Jonas

El concepto de organismo en la filosofía de Hans Jonas

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Abstract

The current philosophy of biology, having overcome the reductionist temptation, has focused its attention on the concept of organism. Hans Jonas' thought will be useful in this new context, since it deals with this concept in a profound way. From this conviction, the present text intends to explore precisely the notion of organism in Jonas' thought. To do this, I will begin by exposing the motivations that lead the author towards the concept of organism (section 1). He turns to it as a way out of the dualistic difficulties that, in his opinion, threatened to suffocate philosophical research. In a second step, I will specifically present the idea of organism that Jonas proposes with its most conspicuous features, among them, a close link with the notion of metabolism (section 2). After that, I will look for the connections of the concept of organism with other areas of Jonas' thought: ontology, anthropology, ethics and theology (section 3). I will then outline some criticisms on Jonas's ideas, especially regarding the application of the term "freedom" to organisms, as well as the absence of references to biological reproduction (section 4), and end with a concluding summary (section 5).

Keywords: dualism; materialism; existentialism; metabolism; freedom.

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Resumen

La actual filosofía de la biología, superada ya la tentación reduccionista, ha centrado su atención en el concepto de organismo. El pensamiento de Hans Jonas resultará de utilidad en este nuevo contexto, pues aborda de modo profundo dicho concepto. Desde esta convicción, el presente texto se propone explorar precisamente la noción de organismo en el pensamiento de Jonas. Para ello, comenzaré por exponer las motivaciones que conducen al autor hacia el concepto de organismo (sección 1). Acude a este como vía de salida de las aporías dualistas que, a su parecer, amenazaban con asfixiar la investigación filosófica. En un segundo paso, presentaré ya en concreto la idea de organismo que propone Jonas, con sus rasgos más conspicuos, entre los que consta un estrecho vínculo con la noción de metabolismo (sección 2). Tras ello, buscaré las conexiones del concepto de organismo con otras áreas del pensamiento de Jonas: ontología, antropología, ética y teología (sección 3). Esbozaré, a continuación, algunas críticas a las ideas de Jonas, en especial en lo que hace a la aplicación a los organismos del término "libertad", así como a la ausencia de referencias a la reproducción biológica (sección 4), para finalizar con un resumen conclusivo (sección 5).

Palabras clave: dualismo; materialismo; existencialismo; metabolismo; libertad.

1. Introduction: dualism (and its sequels) as a problem, the organism as a solution

In his youth, still in Germany, Hans Jonas became interested in ancient thought. He worked on the ideas of St. Augustine and the Gnostics (1958). As a disciple of Heidegger, he relied on existential analytics as an interpretative method for the study of the Gnostics. It was his detailed history of Gnosticism that first made him known as a philosopher. However, because of his Jewish background and Zionist convictions, his academic career in his native country was to prove brief. Needless to say, his relationship with his teacher was severely damaged because of the political positions adopted by the latter. Jonas soon went into exile in Palestine, to return to Europe alone as a member of the British army and fight in World War II. With the end of the war, and after finding about the death of his mother in Auschwitz, he left Germany for good, worked for five years in Canada and finally settled in New York. It was during his Canadian period that he became more directly involved with the concept of the organism. He then produced what he himself called "an 'existential' interpretation of biological facts" (1966, ix). Already in the USA, his philosophical interests shifted towards questions of ethics and philosophy of technology that would make him worldrenowned with the publication of his book-already a classic-The Imperative of Responsibility (1984). Here we are mainly interested in his philosophy of the organism, but we could not grasp its meaning without showing the path that

Jonas followed to reach it. That is to say, we must take into account the influence that Jonas received from Heidegger, as well as the knowledge he attained about ancient gnosis.

Hans Jonas arrives at the reflection on the organism through a peculiar intellectual route.² We could reconstruct it more or less in the following terms. For Jonas: "When man first began to interpret the nature of things [...] life was to him everywhere, and being the same as being alive" (1966, 7). Panvitalism dominated the conception of the world at the dawn of humanity. Thus, what stood before human beings as an enigma was death and not life. When experiencing the strange stillness of the corpse, the question arose as to the reality of death. How had such a thing entered the world, a world flooded with life? This gave rise to the first forms of dualistic thought, which put on one side the inert matter of the corpse and on the other the living soul, which may even preexist and subsist. Life is the rule, the familiar, the given; death is the exception, the strange, that which requires explanation. Ancient dualism has taken root in various forms of myth and philosophical thought, from the Epic of Gilgamesh, through the Egyptian Book of the Dead, to Orphism, Platonic philosophy and Gnostic thought. In any case, it is a pan-vitalist dualism whose objective is to deal theoretically and practically with the enigma of death.

Perhaps the most radical version of ancient dualism is found by Jonas among the Gnostics: "At the peak of the dualistic development, in Gnosticism, the soma-sema simile, in its origin purely human, had come to extend to the physical universe. The whole world is tomb (prison house, place of exile, etc.) to the soul or spirit" (1966, 14). A human being falls only circumstantially on a body, but his or her most authentic reality is spiritual. Moreover, the world as a whole becomes inert matter, dead and disenchanted, through which the spirit hardly passes. If ancient dualism sprouts in a pan-vitalist landscape, with the aim of accommodating death in it, the reality it leaves us with as an inheritance consists, on the one hand, of a devitalized world and, on the other, of a disembodied spiritual sphere. In other words, the basis for a new dualism-a modern one, in this case—and for a new post-dualism. We can be more concrete at the cost of simplifying things: by dividing reality in two, the foundations are laid for modern dualism, that is, Cartesian, and also for the post-dualist residues that derive from it, those of materialist affiliation and those of idealist affiliation, both with identical nihilistic consequences.

Perhaps now one of Jonas's cryptic statements about Heidegger can be understood. For the former, his teacher's thinking itself "also represented a sort of present-day gnostic phenomenon" (Jonas, 2008, 66). If Heidegger initially

² It is worth mentioning here the connections between the thought of Jonas and that of Ludwig von Bertalanffy. According to Roberto Franzini Tibaldeo, the epistolary exchanges between Bertalanffy and Jonas were fundamental for the latter to draw parallels between Gnosticism and interwar philosophy (Tibaldeo, 2012).

gave him the methodological keys to read the Gnostics, it is now the Gnostics who provide Jonas with the best perspective to understand the existentialist Heidegger. It is not that Heidegger is in some sense a contemporary Gnostic, but that his thought is one of the sequels of a dualistic approach similar to that of the Gnostics. Similar, yes, but not identical.

The main difference can be seen in the background landscape. Ancient dualism is outlined against the background of an animate universe, while modern dualism does so on an inert basis. The former seeks to explain death, the latter takes it for granted, it emerges already bathed in inert matter; its problem consists, therefore, in accounting for a pair of tiny and extravagant, capricious, almost maddening, cosmic details: life and consciousness. Cartesian dualism dawns already looking towards the new physics of Galileo, whose method empties matter of life. Descartes transformed what, in principle, was only innocuous methodology into a whole ontology of the res extensa, that is, of dead things. Nonetheless, what the corpse was for ancestral pan-vitalism, was consciousness for modern pan-mechanism. An undeniable nuisance that somehow has to be accommodated. And Descartes appealed to the other substance, the res cogitans.

We already have inert matter on one side and consciousness on the other. The human being is properly res cogitans, but his or her material body can hardly be ignored, which raises the never well solved problem of the connection between the two substances. What about the rest of the living? As is well known, they pass forthwith to the side of matter. They are machines. The mechanistic theory of the organism will try to explain life from the conceptual categories of the non-living. Not surprisingly, this whole dualistic enmeshment turned out to be unstable. It immediately suffered an inclination towards the materialist side, from which it was proposed to dispense even with res cogitans as substance, in order to undertake repeated attempts to explain it in terms of matter and motion. Had any of these attempts been successful, the transition from the archaic monism of life to the modern monism of death would have been completed through a long dualistic detour. But what is certain is that the contrary tendencies, towards the sphere of consciousness, with the consequent forgetting of the body, and even the negation of matter, were also present from very early on. In this second line Jonas situates the existentialist anthropology of the first Heidegger, who denies the human being all remnants of nature and conceives him as freedom thrown into a strange world in which he must constantly invent himself. "In Being and Time," writes Jonas, "the body was omitted and nature was relegated as the merely existent" (2001, 144; quoted in Gutierro, 2021, 85).

As Jonas summarizes, in the current "postdualistic situation there are, on principle, not one but two possibilities of monism, represented by modern materialism and modern idealism respectively. [...] We would then have a phenomenology of consciousness and a physics of extension" (1966, 16-17). We already know that neither one nor the other, separately, are fully satisfactory.

Nor would a juxtaposition of the two, a division of the work on two separate fields of reality, be valid as a compromise. Within Jonas' line of argument, this is the exact point at which the notion of organism is inserted. His familiarity with Heideggerian existentialism as well as with Gnostic dualism leads him to recognize, with all the historical nuances one may wish, that the former is to be interpreted as a residue of modern dualism, together with the other complementary residue, the materialist one. Both residual approaches fail in the face of the reality of the organism (for reasons we shall see immediately). And, of course, so does any form of dualism. For Jonas, the organism functions up to this point as a touchstone. The organism will also function, from here on, as way out of the aporia of dualism and its aftermath.

2. Profiles of the organism concept in Hans Jonas

The materialistic approach comes up against the interiority of the organism, which is insurmountable to us through our own self-experience.³ Every living being possesses a certain intimacy that distinguishes it from its environment, and, especially, every animal is capable of feeling, willing and moving with what Jonas has come to call freedom. From the categories of the extensive, which, let us remember, neither feels nor suffers, the explanation of the living is an unapproachable enterprise. When we think of the organism in a mechanistic way, we inexorably leave out the very condition of organism, its interiority, its capacity to feel, to desire, to behave. And at this point, I would like to add, it is customary to invoke epiphenomena, emergence or simple elimination, meager nominal consolations for our explanatory indigence.

Nevertheless, from the side of the philosophy of consciousness, we also do not have frank access to the organism, which is still a bodily entity and, therefore, a spatio-temporal one, subject, of course, to the laws that govern matter. The body must be understood, then, as one more of the ideas that are given to consciousness, and, with this, it is completely distorted. If the materialistic explanation of the living body leaves out the living, the idealistic explanation disregards the genuinely bodily.

Nor is a return to dualism possible by means of some agreement of peaceful coexistence along the following lines: the natural sciences, with their methodology,

³ I am aware that the use of the first-person phenomenological perspective is open to criticism from a naturalistic vantage point. However, this use is perfectly compatible with a moderate or pluralistic naturalism, which admits cooperation between different methods. And it is this type of collaboration that Jonas proposes and practices. On the current debate on the advantages and limitations of naturalisms, see Pérez (2021).

become concerned with the bodily aspects of the organism, while the sciences of the spirit gain access to its undefined interiority. It is not feasible because, according to Jonas:

[...] our living body constitutes the very self-transcendence in either direction and thereby makes the methodological epochē founder on its rock. It must be described as extended and inert, but equally as feeling and willing—and neither of the two descriptions can be carried to its end without trespass into the sphere of the other and without prejudging it (1966, 18).

In short: in Jonas' assessment, the very reality of the organism challenges both dualism and its monistic residues. In a complementary way, the author will glimpse a genuine ontology of the organism as a way out of the modern labyrinth:

Perhaps being physically exposed—Jonas recalls from his war experiences—, with which the destiny of the body imposes itself forcefully [...], contributed to the new reflection [...] [and thus] the idealistic partiality of the philosophical tradition became completely evident to me. Its secret dualism, a millenary legacy, seemed to me to be contradicted in the organism, whose forms of being we share with all living beings. Its ontological understanding would close the crack that separated the self-understanding of the soul from the knowledge of physics (2001, 145).

And what is an organism for Jonas? According to him, life is, first of all, a metabolic phenomenon. This is the keystone of his ontology of the organism (Gutierro, 2022, 82-90). Thanks to metabolic activity, each living being, without ever abandoning its material condition, without leaving space-time for an instant of its life, is capable of moving through matter without losing its identity. The organism thus depends on matter, but not on this matter in particular. Moreover, its very survival depends on its being able to constantly renew the matter of which it is composed. This capacity of the organism to keep itself alive without depending on any concrete part of matter is seen by Jonas as a first glimpse of freedom, albeit a "needful freedom" (see Jonas, 1966, 80). And he immediately places this notion of freedom in continuity with that of form. That is to say: with life, the real difference between matter and form enters the world.

This approach recalls a crucial passage from Aristotle's biology, located in his treatise On the Parts of Animals (643a, 24): "The difference is the form in the matter" (Bartolomé and Marcos, 2018, 172). Although Jonas does not mention it explicitly, one cannot but foretaste these words of the Greek thinker in the background of his ontology of the organism. In fact, in line with Aristotelian hylomorphism, Jonas argues that the concrete unity of matter and form holds also in the case of organisms, in which there is coincidence "with their actual collection at the instant" (1966, 80). That is, in organism always "the material

contents in their succession are phases of transit for the self-continuation of the form" (1966, 80). But, just as in the realm of the non-living the separation between matter and form is a mere abstraction operated by us, in the living "the ontological relationship is reversed: form becomes the essence, matter the accident" (1966, 80). In the case of an organism, the instantaneous identity between matter and form is a mere abstraction; the concrete is the continuous temporal course of the organism, throughout which, thanks to metabolic processes, matter changes, while form is maintained and, with it, the identity of the organism itself.

From this conception of the living follows other features or characteristics of organisms. The first of these is their interiority. If in the metabolic processes we see how matter enters and leaves the organism, it is clear that this delimits an inner and an outer zone, opens an inner space, an intimacy and, correspondingly, delimits its surroundings, an environment, an outer world. The point of life itself, Jonas compiles, is "its being self-centered individuality, being for itself and in contraposition to all the rest of the world, with an essential boundary dividing 'inside' and 'outside'—notwithstanding, nay, on the very basis of the actual exchange." (Jonas, 1966, 79).

Every organism divides the world into two zones, one internal and the other external; and also puts them in communication. Interiority, environment and intercommunication are distinctive notes of the living. "But if inwardness is coextensive with life, a purely mechanistic account of life, i.e., one in outward terms alone, cannot be sufficient" (1966, 58).

With what has been said, we have already hinted at other derived traits that, according to Jonas, characterize the organism, and which we will not go into here. These are features such as the unity and individuality of the living being, the organic totality that each one forms, so that it does not coincide exactly with the mere sum of its parts, its condition of center of its own activities, that is to say, its functional and teleological aspect, its dynamism and plasticity (cf. Gutierro, 2021, 143-44). It does seem opportune, however, to make a separate mention of gradualness. It is this feature of the living that will allow Jonas to raise his gaze from metabolism, already present in the simplest of living beings and, of course, in all plants, to sensibility, emotions and behavior, which come into the world through animal life, and so on until we reach the self-consciousness, will and freedom proper to humans. What appears as gradual in the whole scale is precisely what Jonas calls freedom, the autonomy of the living being with respect to its environment, from whose dependence, ultimately, it can never completely detach itself.

In the plant there is no distance between the nutrients it metabolizes and its own limits. The metabolic exchange has an immediate chemical nature. Roots and leaves are in contact with the nutrients that they eventually internalize. For its part, the animal opens a space between the nutrients and its own body.

Sensation establishes a certain distance between it and the food. Emotions give it the impetus to get going and movement eventually fills the gap. In addition, before the chemical assimilation of nutrients, there is in many cases a mechanical processing, e.g., by chewing, which is a mediating action. In this way, the animal has gained degrees of freedom, since it can choose this or that source of nutrients, something that is not given to the plant. In the case of humans, obviously, the space grows and the mediations become enormously complex, as well as the degrees of freedom, even to select vital objectives much more differentiated than mere survival.

From these last remarks we can already surmise that the concept of organism will influence many other areas of Hans Jonas' thought. Let us see it in detail.

3. Connections of the concept of organism with other areas of Jonas' thought

The concept of organism is at the heart of Jonas' philosophy. We have already seen how it arises from the struggle that the thinker maintains with dualistic tendencies, ancient and modern, as well as with the materialistic and existentialist sequels of modern dualism. Thus, the question of the organism is clearly linked to the studies on Gnosticism and to the positions adopted by Jonas with respect to his teacher, Heidegger.

However, in addition, the notion of organism, once installed in Jonas' thought, is projected onto his ontology, anthropology, ethics and theology, and is decisive for the development of all these issues. To begin with, Jonas' ontology starts from the undeniable reality of the organism, to which we have access in a double way, both through the perception of living bodies, including our own, and of their movement in space, and through the sensation and thought that serve as open windows into the interiority of the organism that each one of us is. We see the organism—so to speak—from the outside and from the inside, but what we see is a single entity, not two distinct substances. Doing ontology implies taking note of this primary unity that is the living organism. The dualistic disintegration of it only propitiates what Jonas calls "ontology of death" (1966, 20), because "pure consciousness is as little alive as the pure matter confronting it" (1966, 21). Our thinker proposes to start from life as it presents itself to us, that is, in living organisms, in order to end up explaining the whole ontology of the universe. Any ontology that pretends to start from matter or from pure consciousness, that is, any ontology of death, will fail to account for the living, it will distort or deny it. Jonas understands the two phases of dualism, matter and consciousness, as abstractions formulated from the experience of the living and, he states, "abstractions themselves do not live" (1966, 22).

There are many Aristotelian reminiscences in all this eagerness to maintain the unity and concreteness of the organism, as well as its focal position for all ontology. From the organism, matter has to be explained, as matter-of, and

always as something relative. From the very interiority and freedom of the living, which already dawn with metabolism, the problem of sensation and thought must be approached. Here, the ideas of matter, form, difference and substance, which come from the Aristotelian tradition, will be crucial supports. The very Aristotelian metaphor of the wax and the shape, so present in De Anima, comes to mind again and again in reading Jonas. "Les us consider further this new element of freedom," Jonas recommends, "that appears in organism, with special reference to form" (1966, 80; italics in original). Jonas refers to form as a "real, that is, efficacious, characteristic of life" (1966, 80). In addition, the Aristotelian distinction between the physical (physikós) and the logical (logikós) perspective is relevant here. Jonas speaks to us, no doubt, of form in the physical sense, as a reality in the world, not as a simple concept or idea. He asserted that it is only with life that "the difference of matter and form, in respect to lifeless things an abstract distinction, emerges as a concrete reality" (1966, 80). In the world of the nonliving, the separation between matter and form is a mere abstraction, whereas in every living "the difference between the two is the concrete" (2000, 124). Again, we sense here an implicit quotation from the text of Aristotle reproduced above, contained in On the Parts of Animals. Jonas expands on this idea and connects it in a very suggestive way with the question of time. According to him, when we split the existence of an organism into instants, we are proceeding by abstraction. Such a splitting of what is physically one does not exist in reality, only in our mind. "The reality of its form is in the succession of instantaneous materialities, which it converts into its duration" (2000, 125).

In the interplay between matter, form and difference appears what is proper to life, its paradoxical and indigent aspect. With the emancipation of form, which can roll, thanks to metabolism, on matter, life becomes extremely dangerous, continually dependent on the obtaining, never guaranteed, of new matter. Life is a mode of being that, by abandoning identity and devoting itself to difference, becomes an adventure with the risk—and the sentence—of death. Life abandons the identity between matter and form, and with it security, and enters "boldly into the world of difference" (2000, 149). It might seem that the shadow of dualism looms again here, but this is not the case. The organism whose form is emancipated from matter does not become less material, but more. It does not diminish here "the overall computation of the materiality of the form detached from the fixed material equation, and in this sense 'liberated,' but on the contrary makes that materiality increase" (2000, 149). In the course of its life, any organism processes far more matter than is required for its constitution at any current instant. Moreover, it is continually engaged in the attainment of new matter. The entire matter of the universe thus becomes, for an organism, a possibility. The concepts of actuality and potentiality are here assumed. And the teleological character of organisms, which tend to survival through the progressive renewal of their matter, is also pointed out.

Allow me to expand somewhat on this last point, because of its obvious importance and its conflictuality. All modern science seems to be anchored in the elimination of finality. However, the teleological orientation of each organism towards its own life is an indispensable datum of our experience. The reduction of everything biological to pure efficient cause, to mechanism, is frustrating. It always leaves us with half an explanation. It is perfectly legitimate, from the methodological point of view, to put finality in parentheses in order to be able to better study other aspects of reality. But with this we cannot pretend that purposiveness itself has been eliminated from reality. Every organism manifests the opposite. And the scholar of the living, he or she himself or herself, turns out to be an organism, with access to his or her tendential interiority, to his or her emotions and volitions, to the finalistic ordering of his or her action. From this vital position, we could hardly deny the teleological condition to our body and to the rest of the living. "However complete the physicochemical analysis of the composition of the eye and of the processes attending its stimulation may be," Jonas reminds us, "no account of its construction and functioning is meaningful without relating it to seeing" (1966, 90). Finalism and mechanical causality coexist. It must be recognized that there is something enigmatic in this, an unresolved problem, but it cannot be denied that such coexistence occurs, and even less so when the student of life is a living being, who by his own condition has access to the evidence of both dynamisms. "Life," says Jonas, "can only be known by life" (1966, 91). The problem before us "cannot be denied either is a problem not to be 'solved' by sacrificing an evidence (purposiveness) to a theorem (exclusiveness of causa efficiens)" (1966, 90).

If Jonas' ontology, as we see, springs from the idea of organism, so does his anthropology, since the human being is an organism and can only be understood as such. Anti-dualism now becomes especially peremptory. There are not two substances in us, but each human being is precisely a substance, an organism, in which the traits that we had already seen appear in the simplest of living beings are manifested in a particularly clear way. It is this position of the human being that makes him so apt to understand what other organisms are and to structure from there a whole cosmovision. The most elementary of the entities capable of metabolism already separates reality into two zones, one interior and the other exterior, already puts them in communication, already makes its form take distance from matter, not because it can dispense with it in general terms, but because it does not identify itself with any particular part of it, already indicates tendencies in its mere structure and seeks in each of its actions its own subsistence. All this is applicable to a simple bacterium and, of course, to plants. With animal life, freedom gains ground, as we have seen, thanks to sensation, emotion and movement. And in this line of gradual gain of distance, of interiority, of self-reference, of degrees of freedom, in short, we must situate the human being. Jonas himself establishes this transition in one of the chapters of The Phenomenon of Life, entitled "From the Philosophy of the Organism to

the Philosophy of Man" (1966, 183-187). The author suggests that the animal organism is building around itself a world, which is already something more than a simple environment, like that which surrounds plants. A world implies a certain distance, and, with it, a certain representation. "World' confronts the subject with discrete, self-contained objects, whereas the plant-environment consists of adjacent matter and impinging forces" (1966, 183). The next step in the same direction places us definitively in the anthropological terrain: "In the image-faculty of man a further degree of mediacy is reached, and the distance between organism and environment is widened by a further step. [...] This new degree lies in the ideative extension of perception [...]. The new mediacy consists in the interposition of the abstracted and mentally manipulable eidos between sense and actual object" (1966, 184). In fact, the closest we have in Jonas to a definition of the human being is the expression Homo pictor (1966, Seventh Essay). The human being thus converts things into images and language, he distances himself from them in order to be able to manipulate them more freely before returning to them.⁴ At this new level, a maximum is reached with respect to the tendency to separation, which already began with simple metabolism.

On the other hand, the tendency to goals is also present in all organisms; in animal life it is specified as drive, effort, pleasure and fear, which finally take the form of "reaching self-transparency in consciousness, will and thought of man" (1966, 90; cf. also Jonas, 1976). The human being ends up being understood by Jonas not only as an organism, but as the seat of the organism's knowledge. Thus, a philosophy of life has to deal "with the organic facts of life, and also with the self-interpretation of life in man" (1966, 6).

As a whole, with the appearance of the human being, a range of purposes never before given appears in the universe. Each of us, as an organism, seeks survival, but we do so in a much more complex, sophisticated and free way than the simplest organisms. In addition, we seek not only life, but a good life, with the aspiration to happiness, which is fulfilled in very different ways depending on the person. In other words, human beings open up new purposes that would be unthinkable without them, open up new areas of value in the universe. And with this observation we begin the transition from anthropology to ethics. The whole of Jonas' (1984) ethics of responsibility is based on these considerations. Given the value assigned to human life, the universe would be seriously impoverished by its loss. The range of possible ends would be drastically diminished, and the possibilities of value would thereby be reduced. Here is the insertion of the concept of organism into ethics. It is organisms that possess ends, ends open up possibilities of value, and these are maximized by the presence of human beings on Earth. There would be, then, "something absolutely inadmissible, namely, that man destroys himself (for example by ruining the biosphere)" (2000, 322). From

⁴ There are interesting parallels between Jonas' ideas and those of Helmuth Plessner (see, for instance, Michelini, Wunsch & Stederoth (2018) and Greene (1966)).

this follows the principle of responsibility itself, which, in one of its statements, goes as follows: "Act in such a way that you do not threaten the conditions for the indefinite continuity of human existence on Earth" (1984, 36). It is a principle of respect and care for life in general and human life in particular.

Jonas' ethics proposes to go to the root of the question, that is, to the question of the primacy of being over non-being. It asks why being has value, why it is better than non-being. The answer is that only in what is can there be value, so that this mere possibility of value is already a value that makes being preferable to nothingness, that is, that makes it better and therefore preferable. In other words, there can only be something good if there is something. As he put it, "[...] the mere fact of value (with its opposite) being predicable at all of anything in the world, whether of many things or few, is enough to decide the superiority of being, which harbors that possibility within its manifold, over nothingness, of which nothing whatever, neither worth nor worthlessness, can be predicated" (1984, 48-49; italics in original). Now, this value of being does not occur equally in all entities. Some can be more fully than others, and consequently their value will vary by the variation of their mere possibility of sustaining values. Jonas formulates this idea in terms of the capacity of every substance to have ends, and in the case of humans also to propose ends to themselves: "We can regard the mere capacity to have any purposes at all as a good-in-itself, of which we grasp with intuitive certainty that it is infinitely superior to ay purposelessness of being" (1984, 80; italics in original). We have the profound moral intuition that being is worth more than non-being, that organisms are worth more than non-living things, and that not all living things are worth the same, and, consequently, that not all deserve the same treatment. The just gradation of the same is in close connection with the very idea of organism that we have been presenting.

In closing this section, I will make two brief observations regarding the impact that the idea of organism has on Jonas' theology. To begin with, this idea owes much to a mental experiment, of a theological nature, which our author develops in chapter five of his book The Phenomenon of Life. The title of the chapter is highly significant, since it connects from the outset the biological with the theological: "Is God a Mathematician? (The Meaning of Metabolism)" (1966, 64-98). I cannot expand in the exposition of the ideas it contains, but I will try to summarize the core of its meaning. Frequently, especially since the beginning of modernity, the idea of a mathematical God, who designs the universe so that it works by itself according to precise laws, has been advanced. The saying attributed to Galileo, according to which the book of nature is written in mathematical characters, points in this direction. God would have spoken to us of himself through the Bible and through the mathematics implicit in nature. According to Jonas, a mathematical God would be blind to see such a ubiquitous phenomenon in our environment as metabolism. God's famous point of view would be of little use to us now. Not even for elementary biology. "The mathematical God in his homogeneous analytical view misses the decisive point," writes Jonas, "the

point of life itself: its being self-centered individuality, being for itself and in contraposition to all the rest of the world, with an essential boundary dividing 'inside' and 'outside'" (1966, 79). This blindness of the mathematical God to life is due to "the invisibility of life to the analysis of the extensive" (2000, 135). In this we have an advantage over the mathematical God "we poor mortals [...] [are] happening to be living material things ourselves, we have in our self-experience, as it were, peepholes into the inwardness of substance" (1966, 91).

The second observation refers to a connection that no longer depends on a mere mental experiment, but is given in terms of the deep theological convictions of Jonas. These are expounded in the manner of a myth, that of the face or image of God, but a myth, says Jonas, "which I would like to believe 'true'-in the sense in which myth may happen to adumbrate a truth which of necessity is unknowable and even, in direct concepts, ineffable, yet which, by intimations to our deepest experience, lay claim upon our powers of giving indirect account of it in revocable, anthropomorphic images" (1966, 278). This myth says that the human being is not created in the image of God, but for the image of God, that is, that he has the mission to create, to produce with his actions, the very face of God. He thus becomes a kind of "cosmic adventurer" who places his fate entirely, in a surrendered manner, in our hands, for good ... or for evil. There is no need for the world to exist, but by "foregoing its own inviolateness the eternal ground allowed the world to be" (1966, 279). Through the emergence of organisms, with all the characteristics that Jonas recognizes in them (most notably freedom), and with the intensification of these to the human extreme, the "divine adventurer" stakes his own face without remission. And, Jonas concludes, "it is not licit for us to leave him in the lurch, not even if we would like to leave ourselves in the lurch" (2000, 323).

4. Some critical reflections

After the expository and interpretative phase of this article, I will now formulate some critical reflections on Jonas' ideas. Simplifying things, I can mention that these reflections refer (i) to the use of the notions of freedom and life; (ii) to the lack of distinction between science and scientism; (iii) to the sparse treatment of the phenomenon of biological reproduction; and (iv) to the doubts that may be generated today by the characterization of plant life provided by Jonas.

(i) The concept of freedom appears very frequently in the texts that Jonas devotes to thinking about the organism. It is, for him, a key notion. However, the use he makes of the very notion of freedom is, if I may be allowed the redundancy, too liberal. He employs it already in relation to plants and even to the simplest forms of life. We could say that for Jonas there is freedom as long as there is life. It is true that on some occasions he typographically indicates the term with quotation marks or italics, but not always, and on others he

reserves for the human the expression "freedom of the spirit." In any case, by attributing freedom to any metabolic organism, Jonas makes things too easy for the explanation of human freedom. Perhaps there is little in common between the possibility that any organism has to metabolize this or any other matter and the freedom of action and will that we humans experience. Each of these phenomena could be given, in all tranquility and perhaps with a gain in precision, a different name. Conceivably it would be more rigorous to speak of metabolic autonomy in the case of metabolism and of authentic freedom in the case of human action. The expression "metabolic autonomy" could perhaps serve to bring Jonas's positions closer to those of the more current enactivism or organizational approach,⁵ or at least facilitate a possible dialogue with them. This need not be the best terminological choice, of course, but Jonas' generous use of the concept of freedom somewhat distorts his explanation of the organism in general and the human being in particular. Interestingly, the author himself is critical of analogous rhetorical maneuvers. For example, he states-rightly, I believe-that "cybernetics is not as innocent" when selecting certain terminology: "The use of an intentionally ambiguous and metaphorical terminology facilitates this transfer back and forth between the artifact and its maker." That is, when we metaphorically describe cybernetic control artifacts as "perceptive, responsive, adaptive, purposive, retentive, [having] learning, decision-making, [being] intelligent, and sometimes even emotional" (1966, 110), we are rhetorically facilitating the subsequent conception of human beings as mere cybernetic systems, as complex robots, as well as the assignment of intelligence to the artifact. Something analogous could be said to be done by Jonas in already endorsing freedom to any metabolic organism, item more so when in his own text we can read, separated by a few pages, the two statements that follow. "Let us consider further this new element of freedom that appears in organism" (1966, 80; italics in original); and "The advent of man means the advent of knowledge and freedom" (1966, 277). It is true that in the former the term in question appears in italics, but will there not be here, consciously or not, an ambiguous and metaphorical use of it?

Regarding the notion of life, it should be said that sometimes it could be replaced with advantage by that of living being. Jonas usually refers to organisms, to each one of them, as a concrete entity. This reference is better indicated by the concept of living being than by that of life. Life can only be an abstraction formulated on the basis of what living beings have in common, or else the activity proper to a living being. In any case, before life there is the concrete living being, that is, the organism. The whole spirit of Jonas' philosophy points in this direction, confusion is not easy, but it would be even less so if in numerous passages he were

⁵ See, in this regard, Etxeberria & Moreno (2007), Barandiaran & Moreno (2008) and Moreno & Mossio (2015).

to replace life by living being, for example—one among many that we could bring up—when he affirms that form is an "efficacious, characteristic of life" (1966, 80).

(ii) Another objection that we could interpose concerns the distinction between natural sciences and scientistic mentality. It is not clear to me whether this is a terminological question in Jonas, like the previous ones, or whether it goes to the heart of his thought, so I treat it separately. I refer here to programmatic statements such as this: "[...] the following investigations seek to break through the anthropocentric confines of idealist and existentialist philosophy as well as through the materialist confines of natural science" (1966, ix). Here one would expect Jonas to contrast two antagonistic philosophical ranges, on the one hand that which encompasses idealism, existentialism, perhaps nihilism, and, on the other, that which includes materialism, radical naturalism, and scientism. But what he does is to oppose philosophical ideas to natural sciences, the latter implicitly linked to a materialist philosophy. From my point of view, this is an error of expression. I understand that, at bottom, what Jonas is looking for is the opposition of philosophies, but as he says it, the question is not clear. In our days it is already evident to everyone that science is something different from scientism, that the natural sciences do not imply a radical naturalism and that the scientific study of matter does not have to lead to materialism. I avoid here the work of giving argumentative support to these claims, for such work has already been successfully done by many contemporary authors. In this regard, let me cite only, and in honor of its clarity, Francisco Soler Gil's book entitled Materialist Mythology of Science (Mitología materialista de la ciencia, 2013). With its underlying message I believe that Jonas himself could agree, despite the doubts that may be generated by textual quotations such as the preceding one.

(iii) With the third objection we clearly leave the realm of terminology and enter into the heart of the matter. When characterizing the organism, Jonas appeals directly to the biological phenomenon of metabolism. But living beings are distinguished by at least two very conspicuous features: one is, in fact, metabolism, the other is reproduction with inheritance. From some living things others are generated, and these retain some of the traits of their progenitors. Theories of the origin of life have to deal with this dichotomy if they do not want to appeal to a simultaneous debut of both phenomena: either they focus on the origin of metabolism or on the origin of reproduction. Then it will be necessary to explain how the one is produced from the other. But "an 'existential' interpretation of biological facts," such as the one proposed by Jonas, would in principle not have to do without one of the two phenomena that mark the living, neither metabolism nor reproduction. It is surprising, therefore, the almost complete absence of references to the latter that we detect in Jonas' texts, where the exclusive attention is placed on the former. It is obvious that given the biological importance of reproduction, as well as its immediate connection with the evolutionary process, any philosophy of life that does not pay attention

to it will be incomplete. As I have been arguing, the Jonasian reflection on life is of enormous value, but it would be even more so if it contemplated, together with metabolism, reproduction. The same Aristotelian inspiration that we find in Jonas' thought could have led him to the phenomenon of reproduction, to which the Greek thinker dedicated a specific treatise.

(iv) Finally, I would like to point out a refinement on the vision that Jonas presents us of the life of plants. In this case, no fault can be attributed to the author, since the botanical research to which I would like to refer has had its impact on the academic community after the death of the German-Jewish thinker. I refer to the research carried out by Stefano Mancuso and his team (2015), according to which it would be appropriate to assign to plants a certain type of intelligence and sensitivity, which Jonas reserved, according to tradition, for animals. Mancuso detects phenomena of communication between plants, behavioral strategies that even involve mutual aid. His positions have triggered an interesting debate in the world of botany (Calderón, 2021). But, regardless of its evolutionary background, it seems clear to me that the sharp distinction we used to make between plant life and animal life needs to be reconsidered. If Jonas's ideas about what an organism is are to be rescued for contemporary debates, they will have to be done under this nuanced tone.

5. Concluding Remarks

Both biology and the philosophy of biology have now placed the organism at the center of their agenda. It is no longer an issue of reducing it to the categories of inert matter, but of understanding it in its own terms. For this task, recourse to the ideas of Hans Jonas, who thought of the organism in an original and profound way, will undoubtedly prove useful. As we have seen, Jonas approached this subject from his rejection of dualism and as a way out of the aporias to which it condemns us, both in its ancient versions and in its modern variants. Neither are the systems derived from the mutilation of dualism by the negation of one of its terms operative for conceptualizing the organism. Neither the appeal to pure consciousness, nor the reduction to crass matter will serve to understand what a living being is. This is Jonas's diagnosis, and many of us agree with its wisdom.

As an alternative, the German-Jewish thinker proposes that we start from our own experience of the organism, either seen as something spatial and external, or lived from within, since each one of us is an organism. This is a double perspective projected on a single concrete substance. Through this methodology, we aspire to understand the reality of the living. According to Jonas, this is built on metabolism.

It is this biological phenomenon that opens up new metaphysical spaces, that introduces an initial difference between matter and form, that allows the identity of form to roll, so to speak, over matter without ever ceasing to constitute a material

entity. Metabolism goes hand in hand with the introduction into the world of an enclosure of interiority, of a frontier between the organism itself and the rest of reality. There is no living without metabolism and there is no metabolism without the distinction between a zone of intimacy and an environment which, moreover, the organism puts in continuous communication. This is what its life consists of, without it—without interiority and communication—it could not subsist. But the distance, the autonomy, the—let us say it, in spite of everything, in the words of Jonas—freedom of the organism with respect to the environment is growing. It is already a being in itself, a substance, and a being for itself, teleologically oriented towards its own life. In addition, a space is opening up there, between the organism and its environment, which will allow, in the course of time, the emergence of sensation, emotion and movement.

The plant is in continuous and immediate contiguity with its nutrients, it takes them from the air or from the soil directly, by contact, as well as the solar energy that puts everything into operation. It does not have to scrutinize, stalk, jump on them, but they simply arrive and knock at its door. For the animal, in contrast, it is necessary to search, to look, to listen from a distance, to move to the source of matter and energy for its subsistence, and with it fear and desire, attack and flight. It is freer, yes, and at the same time lives a more needy and risky life than the plant, which already constituted as a way of being a mortal risk with respect to the non-living.

This philosophy of the organism gives Jonas the key to build his entire ontology, since the entire universe becomes illuminated by the life of organisms. It is also easy to intuit how the reflection on the human is inserted in the economy of his thought from what is found in the organism. Open space, distance, freedom—now yes, in the full sense and without italics—, interiority, sensation, even self-referential thought, tension converted into will and emotions educated by reason flourish fully in human life, in the biography of each person.

And the value that we can assign to this adventure of the living, the new range of purposes and functions that each organism unfolds in the universe, will serve Hans Jonas to found his ethics of responsibility. It is the human being who has to bear the burden of responsibility, who is responsible for the destiny of the living on Earth. With this, according to the theological myth that Jonas wants to believe to be true, he traces, from time and forever, the face, the image, of the divine adventurer.

All this architecture, full of meaning and beauty, is not, however, without cracks, perhaps merely cosmetic, typical of the coating, or perhaps more nuclear and dangerous for the balance of the whole. We have pointed out some of them, those that concern the concepts of freedom and life, those that refer to the distinction between science and scientism, those that affect the (absent) treatment of the biological phenomenon of reproduction or those that ask to be updated according to the findings of new botanical research. Nevertheless, the

initial estimate, in my opinion, is maintained and reinforced after the journey we have made: biology and the philosophy of biology today have in the work of Hans Jonas a very valuable source of inspiration for thinking about the organism.

Text translated into English by Alejandro Fábregas-Tejeda and Mariano Martín-Villuendas.

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