

Research Article



Life as Autarchy: Deconstructing Bio-Theological Western Paradigm

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Abstract | How can life be defined? In this paper, I will stress the importance of self-sufficiency (or, more rigorously, “autarchy”) in defining what life is in Western thought. I will address philosophy, biology, and theology, by studying Aristotle’s natural philosophy, Thomas Aquinas’ theology, and Maturana and Varela’s biological theory of *autopoiesis*. Although self-sufficiency is quite revealing of what life is, I will argue that it does not do justice to the relational essence of life, being my goal to open new perspectives on life by placing the prefix *syn-* over the prefix *autós-*. The philosophical task today seems to be to understand what relationality and community means, and I argue that for that end the “autarchy paradigm” should be challenged, understanding life (*bíos*) essentially as “life in common” (*symbiosis*).

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Autarchic Life: The *autos-* prefix

The main objective of the present article is to question the basic concepts concerning the definition of life to attend its relational essence; that is, to do justice to the evidence that life is something that never happens in loneliness. To fulfill this task, I will not only address the philosophical conceptualization of life, but also the scientific and theological approaches towards it. I will argue that, in the three great areas of human knowledge (at least in Western civilization), the definition of what living is, is dominated by the Greek prefix *autos-* that accompany some essential nouns and verbs. My aim is not to leave the said approach aside, but only to show its limits, mostly concerning the relational essence of life. We are aware that a genealogical and historical task like this one goes beyond our capabilities, and you will not find an exhaustive nor complete study on it, but only a rough draft that will mainly address the concepts themselves and that will attempt to suggest a possible path to fu-

ture investigations. For that sake, I will pay attention to Aristotle’s conceptualization and definition of life and soul, then to some biological approaches to life in twentieth century Biology, and, finally, to some key theological ideas concerning God’s life (mainly in Aristotle’s and Thomas Aquinas’ theology).

Let us start with Aristotle, one of the *fathers* of “biology”, but also one of the pillars of Western philosophy and theology, who has characterized life with two key properties: *immanence* and *spontaneity*. This viewpoint –which we can find in Aristotle (although he did not use those exact terms) – has a capital importance, as it is a first explanation of life in early Greek philosophy that separates the concept of life from its religious and mystical connotations (such as the ones of the pre-Socratic thinkers and Platonic tradition), and also because the object of study is taken from life itself to the living, in other words, from the noun “*tzoe*” to the verb “*tzén*”, leading the way to the possibility of scientific investigation of life. These two essential char-

acteristics of every living being enables us to distinguish them from inert beings, considering the main characteristic of all natural beings: *motion*. Although everything in this world is bound to movement and change, the living beings are the only ones that can move for themselves (spontaneity) and whose movement is not transitive, as it benefits its own internal dynamics (immanence).

After revising his predecessor's theories on life and soul, Aristotle underlines that life is something that belongs to natural entities; that is, to material substances. There is, however, an important distinction between physical and organic, with life belonging only to the latter. A physical substance or body (*sōma physikón*) is living as far as it is an organic substance (*organikón*); that is, as far as it is potentially living. Whereas Aristotle's predecessors claimed that life is due to the soul as living principle, and that life is a property of the soul, Plato's disciple stresses that life is a property of natural substances, with the soul being only a co-principle of the living. That is why Aristotle rejects the substantiality and physicality of soul. This statement can be taken as a key turning point in biological investigation, since the object of study is no longer the soul (as the principle of life), but the compound; that is, the living substance.⁽¹⁾ And that means that, as biologists, one will address not only soul as principle, but also –and mainly– the natural body that is potentially living. This is the key aristotelic criticism of pre-Socratic and Platonic thinkers (*De Anima* 407b), and this attention to the composition of the organic body could be a first anchoring of biology in physiology, and it represents a gigantic step towards modern sciences of life.⁽²⁾

Although Aristotle's biology highlights the place of organic bodies, the role of soul (*psyché*) is essential to understand life. The title itself of Aristotle's main biological and psychological treatise is, precisely, *On the soul*. In his dissertation, the Greek philosopher proposes four definitions of *psyché*: (i) Soul is a substance, in the sense of form (*hos eidos*), of a natural body (*sōmatos physikou*) that is potentially living (*De Anima* 412a 19-21); (ii) soul is the primary actuality (*entelécheia he próte*) of a natural body that is potentially living (*De Anima* 412a 27-28); (iii) something that is common to all kinds of soul is that it represents the primary activity of a natural organic body (*sōmatos physikou organikou*) (*De Anima* 412b 4-6); (iv) Soul is that by which we live, feel and think, and,

therefore, is a certain structure (*lógos*); that is, a *form*, neither matter nor substrate (*De Anima* 414a 13-16). One can notice that the main characteristics of soul are its principality and its causality, and both characteristics aim to explain the capacity of all living beings to move and to perceive, characteristics that Aristotle acknowledges as a philosophical legacy of his predecessors (*De Anima* 403b 25-27). Activity, then, is the common subject of every living being, and thinking about the living from the notion of *activity* supposes two strategies: 1) to postulate a unitary principle treated as the agent element; 2) to describe that principle with differential characters with respect to the inert. Both strategies converge in the notion of *soul*. On the one hand, soul must account for the operative unity of the organism, establishing the “organic” character of all living: the multiplicity and variety of material “elements” must be undertaken by a principle that will give foundation and origin to life and govern its dynamics. Soul is, in the many senses of this word, *principle (arché)*.⁽³⁾ Therefore, life is, essentially, the opposite of *an-archy*. On the other hand, to determine the nature of this principle satisfactorily, one must consider it as the differential element with respect to *matter (hyle)*. In that sense, soul shares the nature of *form (morphé)* as a structural principle, that is “one” and “unifier” of the plural and disperse matter. However, the difference between form and soul is, precisely, its operational capacity; that is, its capacity to explain how living beings can *move themselves*: there is, then, in every living being, an aspect of *reflexivity* as far as what is moved is the same as what moves. At the same time, the structural principle differs from soul to form, as the latter “organizes” matter; that is, it explains the *organic* essence of living beings.

These characteristic of *psyché* leads us from the notion of *arché* as “foundation” (that shares with *morphé*), to the notion of *arché* as “principle of government.” While in the inert, government is always an extrinsic principle; in the living beings, soul is itself the one that rules and governs this essentially *anarchic* element called *matter*. This change in the sense of *arché* introduces, at the same time, the dynamic and historical dimension of life, and tinges vital processes with the teleological idea of *direction*. *Psyché* is, then, at the same time, the *dynamis* and the *télos*, the alpha and the omega of all of its vital processes. From spontaneity to immanence: every vital operation seeks to assure life itself. The teleological dimension of Aristotle's biology must be taken quite seriously, mainly in its techni-

cal metaphors, where the role of nature can be analogized with art and technique (and viceversa). I think that this double semantical displacement from nature to art and from art to nature can be traced mostly in the importance of the word *organon*, and in its ambivalence, since it can signify both what we nowadays call “organ” and “instrument.”⁽⁴⁾ This semantical displacement occupies a central position among biological metaphors regarding politics and society, just as it does among political metaphors regarding biology. I take advantage of this displacements using the term *arché* in its various meanings, especially in the political one (in the use of the term *anarchy* as the absence of a governing principle concerning living beings), but also in its artistic capacity to organize living bodies. In this sense, biological examples can be even more clear and competent than mere physical examples to explain Aristotle’s *hylomorfism*.⁽⁵⁾

The concept of *autarchy* is political, and this is not something one should take for granted. If soul is the principle of “organization” of living beings, then one could say that the living system is a political domain which must be governed: all the different parts of the organism are defined by a special function (which turns them into “organs”) and are *disposed* and administered by this unique governing principle: soul. *Soul is, then, an economic principle*. This semantic displacement of the word “organization,” that goes from the living body to political theories, is essential in Aristotle’s biology (but also in western modern biology, as I will explain later). To organize something is to give each part of a certain territory (and the living body can be thought of as being one), or set, or ensemble, a specific role or function. Each part of the body (either biological or political) is important as it is defined by a certain function for the sake of the whole.⁽⁶⁾ This is why *teleology* is as important an approach in biology as it is in politics: instruments are defined mainly by the goal they are given; in other words, by their finality. The main question, then, is what is the principle that *dis-poses* each part as having a certain function for the benefit of a defined totality. The etymology of the word *economy* comes from a Greek word meaning “administration of the house,” and the Greek word *economy* has been translated into Latin also as *dispositio*. To dispose is to pose something in a certain way, within a certain order. Now, the economic principle of living beings, the principle that disposes each part in order to the benefit of the whole is, clearly, *psyché*. We can find in Aristotle’s philosophical evolution of the

concept of *psyché* a certain dilemma concerning the place or territory of *psyché* itself: due to *economic* reasons, soul was placed at the center of the living beings; that is, the heart (or the organ that can be analogized with the heart), for the heart maintains a similar distance to any other part of the body (from head to toes, from left to right); can distribute blood, which is the nutritional element of living beings (bloodless beings are usually thought of in analogy with blooded ones), and is the source of heating.⁽⁷⁾ Although soul does not identify itself with the body, Aristotle is ready to admit that soul “resides” in the heart; however, later on, he decides to think of soul as an economic principle without territory for itself, for in order to administer the whole of the body, the soul must be both all over it and nowhere. Soul is not something that is placed or brought together, but something that unifies every material component of the living body (*De Anima* 411b 8-9). Government is, then, absolute, for everything is within the regulatory and dispositional power of soul.

Nevertheless, it is not the living being that is characterized by this ultimate identity between the origin and the goal of vital acts, but only the soul. As a matter of fact, *psyché* is a principle that constantly assures unity over the material elements that necessarily tends to disperse, and, therefore, to die. This is why it is not surprising that *psyché* would be characterized as being immortal by Plato in the *Phaedo*; nor should it amaze us that the ethical proposal of both Plato and Aristotle gives *psyché* the function of ordering and commanding the *passions* and *impulses* that constantly tend to dispersion. In other words, the Hellenic idea of ethics –if not of almost every Western ethical proposal– stands over the notion of *autarchy* (*autós-arché*) and *autonomy* (*autós-nómos*).⁽⁸⁾ The very definition of life seems to seminally carry this structural requirement of autarchy, for soul, as a principle of government, must reach independence and absolute control –just like one who is governor without being governed. Therefore, the highest vital principle identifies itself with governing entities such as reason and will: in fact, firstly with reason, as will is more of a minister than a governor, since will is governed by intelligence and only represents the vicar of order that moves towards the disordered elements of passion and matter. One should remember that the rational principle in men, the *rational soul*, is, for Aristotle, in a certain way, independent from material elements or organs (although it is not clear if this principle survives or

not as a singular entity or as an abstract intellect), and is defined by its continuous activity (*De Anima* 430a 10-25). Logically, then, Aristotelian God is identified with Intelligence (*Nous*); that is, with the perfect operation of the perfect principle that starts and finishes in its own perfection (*noéseos nóesis*); therefore, God must only be considered to have no composition, to be simple, to have no commerce with matter (since, ultimately, every composition implies matter, as only what can be dispersed can be *com-pound*). God is, therefore, Life; an Eternal and Perfect Living Being (*ton theón einai tzoón aidion áriston*), and this eternity and perfection are due to its simplicity, to its absolute Autarchy, to its lack of dependence to any *Other*, to its *Impassibility* (*apathés*) and *Inalterability* (*analloíoton*) (*Metaphysics* 1072b 20-30).⁽⁹⁾ If “life” is an analogical concept (and it certainly is for Aristotle), the analogizing sense of Life is God’s life: every other way in which life is revealed must share, in its own capacity, this divine property of autarchy. But we will return to the theological question further on.

From Philosophy to Biology

One could think that Aristotle’s biological ideas are no longer suitable for modern sciences; that its metaphysical content has been deactivated a long time ago. However, our notion of life hasn’t changed that much since Greek Philosophy, since this “self-sufficient” biological paradigm is still strong in our modern mind. One of the most important biological epistemologists, Georges Canguilhem, points out that there is continuity in the history of biology, since biologists are moved by the reflection on “the *indisputable fact* that life, whatever form it may take, involves *self-preservation* by means of *self-regulation*” (1988, 128; my italics). One should pay attention to Canguilhem’s words, for the ideas of self-regulation and self-preservation, that is, the idea that living beings are autarchic as far as their living is only due to themselves, is an “indisputable fact.” We can see the absolute strength of ideology here, since what is only a way of describing or defining a certain phenomenon is taken as something that could not be otherwise; in other words, the relativity of our own characterization of the world is taken as something absolute, as being the world itself. Nevertheless, this characterization of life is at the heart of Western biology, and Canguilhem goes through this history to show his hypotheses. According to the French epistemologist, Aristotle’s fundamental concepts are the ones of *soul* and *organ*, and at

least until the end of the eighteenth century, anatomy and physiology kept the word *organ*, with its ambiguous meaning, that moves from art to nature, and that implies a certain analogy between life and technique. The Aristotelian theses were confronted by Descartes, who kept the anatomic and physiologic concept of organ, but eliminated every difference between organization and fabrication: “A living body could serve as a model for an *automaton* or vice versa” (1988, 129-130), and, therefore, Cartesian Physics cannot admit an ontological difference between nature and art. However, even in Descartes, self-preservation is still the distinctive character of the living body, and when Lavoisier introduces the concept of “regulators of the animal machine” in physiology, “Cartesian concepts were brought into line with Hippocratic intuition” (1988, 131). In 1640, another concept is brought into Biology, as a metaphor brought from “political economy”: “animal economy”. Its purpose is to conserve the idea of the proper relationship between *structure* and *function* in organized bodies (or organic bodies). “In the history of physiology, the idea of *animal economy* was responsible for a gradual shift from the notion of animal machine to the notion of organism over the course of the eighteenth century” (1988, 131). Both notions, *organ* and *economy*, can be traced in Aristotle’s biology –as we have mentioned. Canguilhem continues with the idea of normality and regulation in Life sciences, underlining Stahl’s idea of *autocratia naturae*, Linneo’s *oeconomia naturae*, and even the idea of normality in an alleged non-teleological Darwinian evolutionism, passing through bio-genetical approaches.

“A remarkable and interesting fact from the epistemological standpoint is the proliferation of terms containing the prefix *auto-*, used today by biologists to describe the functions and behavior of organized systems: auto-organization, auto-reproduction, auto-regulation, auto-immunization, and so on” (Canguilhem 1988, 141).

Through these kinds of concepts, says Canguilhem, biophysicists and biochemists are trying to understand the mechanisms underlying living organisms in order to construct cybernetic models of auto-reproductive automata. The epistemological importance of naming the properties of these systems with the prefix *auto-* is due to the need to express the way in which the living relates with its *medium*. “Living systems are open, non-equilibrium systems that maintain their organization both *because* they are open to the exter-

nal world and *in spite of* being open to the external world” (Canguilhem 1988, 141). This is why biologists must preserve the idea of *normality* in their science. But the idea of normality, as Canguilhem points out, is only a property of the organism, and it disappears when it comes to the elements of the organization. This sentence is at the core of Aristotelian legacy, and stresses the idea of the soul as a political and economic principle, responsible for the unicity and totality of the organism.

Nowadays, the very definition of life is still troublesome for biology, since criteria are still plural and there is no consensus (Diéguez 2008). Without necessarily taking into account the material elements that constitute organisms, the key to understand living beings is the idea of *structure* that organizes information and processes in order to guarantee the organism’s identity (*auto-regulation*) or the survival of the species (*auto-replication*). In spite of this controversy between those who propose *auto-replication* as the essential character of living and those who state that *auto-regulation* is the principal characteristic of life, the prefix *autos-* is what they have in common; that is to say, the capacity the living has to cause something by itself. If one stood for the “*metabolism party*,” one could especially notice this strong “autarchic” paradigm: for biologists Humberto Maturana and Francisco Varela (2003), living organisms are “*autopoietic structures*,” structures that can build and generate themselves from themselves and by themselves. The term *autopoiesis* is composed by the prefix *autos-* and the verb *poiéo*, which means to create, to cause, to do, to fabricate, etc. Canguilhem’s commentary on the proliferation of the prefix *autos-* seems to be unaware of Maturana and Varela’s theory (since the publication of their work occurred after Canguilhem’s paper’s, written for a *Colloquium* in Finland in June of 1973), but it is clear that this proposal is another example of this statement.

Humberto Maturana and Francisco Varela, together, wrote *On Machines and Living Beings. Autopoiesis: The Organization of the Living* in 1973. The main objective of this paper was to give a conceptual definition of life, and, for that end, living beings are taken as peculiar kinds of machines; that is, as *autopoietic machines*. Every machine is defined as a certain *system*, where parts are related to one another by the needs of the whole. However, not every machine is *autopoietic*: there are also *alopoietic* systems or machines. The dif-

ference between them is based on the result of their operations or functions: whereas *alopoietic machines* produce something other than themselves (such as a car, or a computer), *autopoietic machines* are systems that produce their own components, which i) generate the processes and relations that produce them by their continuous interactions and transformations, and ii) constitute the machine as a unity in the physical space.⁽¹⁰⁾ Maturana and Varela define living systems as machines, and *autopoietic machines* are homeostatic machines: then, “*autopoietic systems* are homeostatic systems that have their own organization as the variable that maintains constant” (2003, 70-71). An *autopoietic machine* is, therefore, characterized by individuality (unlike physical objects, biological beings are always and mainly individuals),⁽¹¹⁾ by unity (defined only by its *autopoietic organization*),⁽¹²⁾ and by its lack of *inputs* and *outputs*.⁽¹³⁾ There is a reciprocal implication of *autopoietic systems* and living beings, for every living being is an *autopoietic machine*, and if there is an *autopoietic system*, then it is living. Then, “the notion of *autopoiesis* is necessary and sufficient to characterize the organization of living systems” (2003, 73).⁽¹⁴⁾

Maturana and Varela’s biological strategy is deliberately a mechanistic one because the organization of the living has nothing to do neither with an immaterial principle nor with a teleological perspective. However, this mechanistic perspective is not focused on the property of the components of living systems, but only on their processes and relations. Therefore, the *material* perspective is not that important. The *formal* perspective, however, seems to be central, for the materiality of the components is defined by i) constitutive relations (topology of *autopoietic organization*), ii) relations of specificity, and iii) relations of order (2003, 79-80). And the formal perspective is stressed by the *subordination* of every element and component to the *condition of unity*. Organization is, then, a formal concept, which defines the status of the material components –and not vice versa.⁽¹⁵⁾ Nevertheless, this organization lacks a teleonomic or teleological dimension: far from Aristotle’s biology, the notion of finality is not a characteristic of a mechanical organization (and one must remember that living beings are *autopoietic machines*). The very idea of a “design” is only established by the observer, and do not belong to the domain of the machine itself (2003, 76).⁽¹⁶⁾ In *autopoietic systems*, everything is bound to its conservation alone. This lack of finality underlines

the very idea of *autonomy* of the living, as the idea of teleology refers to a heteronomous principle –and we should ask if a certain ethical paradigm is not behind this biological idea.⁽¹⁷⁾ The idea of autonomy is, then, central to the understanding of life. But it is interesting to point out that Maturana chose the term *autopoiesis* over other words: before writing his work with Varela, Maturana was already working on the idea of *self-reference* to characterize the “circular organization” of living organisms, although this term was not clear enough to define them. The term *autopoiesis* appeared in a conversation he had with his friend, the philosopher José María Bulnes, about Cervantes’ *Don Quijote de la Mancha*, where the word *poiesis* was confronted to the word *praxis* (2003, 17). The importance of this anecdote is that it shows the radicalism of Maturana’s biological bet: living organisms are not only the principle of their actions (*praxis*) but also the principle of their constitution, as they produce their own structure (*poiesis*). But the importance of this term also lies in the fact that it stresses the old rapport between *Nature and Art*; a rapport that makes the semantical displacements concerning the political, the ethical, the theological and the mechanical senses of life possible. This is why it is not that surprising that the word *autopoiesis* was embraced by the social sciences, as was the case of Günther Teubner (juridical sciences) and Niklas Luhmann (sociology).⁽¹⁸⁾ One can also find a theological appropriation of the theory of *autopoiesis* in order to think the relationship between God and the creation, given the radicality of both God’s life and of self-productivity in created systems, and the need to find some kind of ultimate unity to the world as a whole (Gregersen, 1998).

Of course, many of the biologists considers not only the relationship that the living maintains with themselves, but also the links that bound them to another. American biochemist, Daniel Koshland Jr. (2002), for instance, has proposed seven fundamental characteristics (or “Pillars”, as he called them) of Life. One should understand life, he argues, not as a universal concept, but only as far as it refers to life in this earth and as far as it can be observed. These Seven Pillars of Life are: *Program*, *Improvisation*, *Compartmentalization*, *Energy*, *Regeneration*, *Adaptability*, and *Seclusion*. The initials of these words form the word PICERAS, with which Koshland would have named the Goddess of life if he had lived in ancient Greece (regarding life, there is always a semantical tension with theology!). In this characterization, one could find an important

continuity to Aristotelian tradition, since all seven pillars imply that the living move by themselves, and that their activities result in their life. However, many of these pillars imply, as well, a reference to alterity and to the participation of the living in a community of life, such as Program (with its genetic compound), Improvisation (as far as it is something other than the living being which arouse new behaviors), Adaptability (for living being needs its environment in order to live), and Seclusion (for, in its negativity, it implies that the living should withdraw from everything else that surrounds it; seclusion would be meaningless if the living being was not already immersed in a wider community of life). One should acknowledge that, even in Aristotle’s biology, living beings are always in need of other objects and other living beings to live. That is certainly a fact that no one could ever deny; that living beings are dependent on other things than themselves. Nevertheless, the idea that prevails when describing the living is that of autarchy; that is, the idea that organisms have commerce with other beings only as far as they *assimilate* them into their own dynamics. Let us address now the theological meaning of life, where this “autarchic” paradigm is taken to its ultimate expression.

Is God Alive? Thomas Aquinas’ Theology

I shall consider now the theological meaning of life and whether life is also a property of God and, if so, how could one define it. As we have seen, according to Aristotle, God’s life is centered on his intellectual faculty, and his operation is absolutely perfect, as far as the operation of thinking and its object are the same. Autarchy is the central characteristic of divine life, for God does not need anything at all: *Impassibility* and *Inalterability* are, therefore, two consequences of his Perfection. But, how did Christianity reflect on God’s life? If theological issues in Greek philosophy are quite controversial, let us look at Christian Tradition. Again, as I did in previous pages, I am not going to study the history of Christian Theology, but I am going to see how God’s Life was defined by one of the greatest Christian theologians: Thomas Aquinas.

It is quite interesting that Thomas Aquinas deals with God’s Life in the First Part of his *Summa Theologiae*, in the treatise on “The One God”, almost in the middle of it, after analyzing God’s Simplicity, Perfection, Goodness, Infinity, Omnipresence, Immutability, Eternity, Unity and Knowledge; and before his Will,

his Love, his Justice, his Providence and his Beatitude. We do not consider this organization to be random, for, ultimately, God's Life is defined by his identification with Intelligence, and every other aspect concerning his Will is subordinated to *Nous*. We must remember that will is like a vicar of intelligence, since it is intelligence that sets and defines what shall be done (there is an anthropological and, more importantly, an ethical concern behind the theological systems). God's life is a rational or intellectual life, and Thomas Aquinas summarizes the Platonic and Aristotelian Tradition in his *Summa*. It is also important for my research to point out that God's life is defined in the treatise about his Simplicity and Unity, and not in the treatise about his Trinity, as we shall emphasize later in our conclusion. With *the Philosopher's* (that is, Aristotle) conception of life in mind, Thomas states that all living beings are characterized by their capacity to move by themselves (*Summa Theologiae*, I, q. 18, a. 1), and that Life is the substance of the living, and not merely an *accidental* property (I, q. 18, a. 2). God, in this sense of living, is not only alive, but it is the one that has the highest degree of life ("*vita maxime priore in Deo est*"), for if Living is defined by the capacity to move itself with no need of an-*other*, then the most perfect living being would be the one that is ultimately independent (I, q. 18, a. 3).⁽¹⁹⁾ After considering all types of living beings, Thomas concludes that it is intellectual life the one that needs the least from others, since vegetal and sensitive life are bound to their objects. However, even intellectual life, as found in humans, has a need of an object to the realization of its capacity. God would be the only living being whose capacity is neither oriented nor determined by any other, but only by his being itself. This is why God has life in an eminent sense, in the highest degree, and, therefore, has Perfect and Eternal Life, always in Act, for his Intellect is a Perfect one, as Aristotle stated (I, q. 18, a. 3).⁽²⁰⁾ Everything in God is alive, for his life is identified with his intellect, and, in God, his thinking and the object of his thinking are the same thing: all of his ideas, by which every being is created, are God himself. In other words, there is no Other with respect to God, for every other live in his Life as the Platonic Ideas in which they *participate* (I, q. 18, a. 4).⁽²¹⁾ God's life, then, is absolute; it is not bound to anything but Himself: God *is* Autarchy.⁽²²⁾

The principle of life, Soul, cannot have any part in divine life, for soul is only a principle that configures and organizes a certain matter (i.e. organized bodies),

whereas God is simple, with no parts, with neither matter nor potential principle (God is the only being in which the *essence* and the *act of being* are one and the same). What soul is permanently looking for; that is, unity; is already in act in God's life. Paradoxically, God would be motionless and living at the same time, only because his movements are already completed in the identity between his operations and their objects.⁽²³⁾ However, one can find the keynote of this entire paper in the analogical sense of Life in both Aristotle and Thomas Aquinas, since the analogy of life from which one can infer that a plant is as alive as an animal, a human, or even God, is only assured by the *paradigmatic* meaning of God's life. And this derives from the definition of Life as *self-moving beings*, as beings that have their own principle of government in themselves; in other words, *autarchy* is the very essence of life.

Is "Self" Sufficient?

Life is, certainly, a mystery for human beings: neither the concept nor the origin of life is something that one could resolve, for the meaning of life is plurivocal, and the many experiences that provide some content to this term are quite different from one another. I pointed out many times in this paper the semantical displacements of the word "life," that goes from a biological to an ethical perspective, from a political to a theological view, and so on –we must remember, for instance, that the Greek word *bíos* is used by Aristotle mainly to refer to the human ethical way of life, while *tzoé* is the term to explain animal life; while, nowadays, *bio*-logy is clearly closer to *tzoé* than to *bíos*. However, I tried to show in this work that, in Western tradition, the prefix *autos*- seems to have a preeminent role in describing life and the living. Although I must address the place of *autos*- in political and ethical perspectives of life in further essays, the ideas of sovereignty and autonomy are evidently key concepts in Western practical philosophy; therefore, the idea of independence in biological and theological theories are also bounded to ethical and political theories. The peculiarity of the idea of life, thus, is that it does not have a unique and overarching meaning, but its plurivocity obeys a fundamental *semantical criterion*, which enables semantical displacements to take place. Hence, my strategy faces this challenge by claiming the idea of a *bio-theo-political paradigm* defined by autarchy.

A complete and consistent theory of life is impossible due to this constant semantical movement, and a genealogical research cannot pursue the meaning of life only from one perspective, but must be able to discover the inter-correlations between all of them. The main objective of this essay, however, is not only to find some structural concept of life, but to question it. Characterizing life by autarchy is troublesome, as living beings do not show only their capacity to “rule” themselves, but also a radical dependence on alterity and an essential link between the living and a community. Is the Other (*alterity*, if we use this technical philosophical word) really that important when it comes to defining Life? This Other, at the same time, could refer to the environment in which a living being inhabits, or to other living beings with which it relates. The idea that the living depends on its natural surrounding is widely accepted, but we should ask ourselves about the dependence of the living on its vital surrounding, and, moreover, the belonging of the living to a larger community of life. Evolutionary theories could enlighten this radical belonging of the living to a life community that transcends it, namely *species*, but even a wider one. If we could place the prefix *autos-* in a second place (for it is quite evident that this prefix really tells us something about the living), and place the prefix *syn-* (“with”) in the first place: should our notion of Life change for good? We should ask, for instance: is there any point in putting the question of the origin of life in terms of the individuals? Does life identify itself with the living beings taken as singulars? Could the origin of Life be traced through the existence of a First Living Being which reproduces or divides itself to give birth to the multiple living beings, with no other need but his own organism? Shouldn't we understand life (*bios*) as life-in-common (*syn-biosis*)? Why couldn't we start from this relational standpoint to define life, instead of starting from its autarchic dynamics? I don't know if this change could enlighten better what life is, but I think one should propose other paradigms to see what happens. We could keep on thinking on life as we did from early Greek philosophy: but, *what if* we think otherwise? Only time will have the answer. As any changing paradigm, my hypothesis is only a bet. Nevertheless, I am convinced that an *economic* definition of life (ruled by the concept of *autarchy*) should change to a *disinterested* definition of the living; that is, to a definition that pays attention to generosity over retribution, to relation over autonomy, to excess over equilibrium. The consequences of this change on

every discourse on life could be revolutionary.

In this path to find a new paradigm of life, defined by its relationality, the Christian doctrine of Trinity would be a key element to open this strategy (let us point out that one of Thomas Aquinas' “problems” was to analyze God's life in the treatise on God's Simplicity, and not in the treatise on Trinitarian God). The Christian God is already a living community; it is a plural life, as it is a Trinitarian life. This theological meaning of life shows two achievements: on the one hand, the notion of life is ontological and not only ontic or phenomenological, since God as a living being is, at the same time, the origin of all living beings, and *to be* and *to live* is, ultimately, the same thing in God (in a way, we could say that the *origin of life* can be traced in *Life as Origin*); on the other hand, this notion understands life in its plurality and relational essence, since life is basically giving itself to an-Other.⁽²⁴⁾ If we could think of these two characters of the theological meaning of life, then we could say that Life is generosity, constant spreading and blooming. This *generosity* of life (and the verb *gígnomai*, that gives meaning to *genesis*, seems to be in the root of this word) could bring philosophy and sciences into dialogue, since it might be of some use to understand how life reproduces and regenerates itself continually, and how the series of generations give themselves for the benefit of the future ones. Certainly, we are still talking about ethical metaphors,⁽²⁵⁾ such as the one about generosity, but the idea is not to discard metaphors but to introduce new ones: to reduce the polyphonic sense of life only to one of them is to lose the question of life entirely.

However, there are two problems with making life an ontological notion. On the one hand, *life* would be a concept as extensional as the notion of *being*, and this *vitalism* would bring several issues to Metaphysics. On the other hand, it can undermine the epistemological foundations of biology, since they are built on physical and chemical theories, and, therefore, understand life as an extension of the inert, and not as something different from nature. The triumph of Aristotle's biology over the Platonic and religious tradition that came before him depends on this shift from the noun to the verb regarding life: there is no *Life*, but living beings. If an ontological status was to claim on life, this Aristotelian epistemological strategy should be taken into account: a Life-substance from which every living being takes its *élan vital* does not help us to move

forward towards a communal concept of Life, for this Life-substance is a solitary and self-governed Being. If life was to be taken as an ontological concept, then it must elude the category of *substance*. Life should be thought of as coming from the category of *relation*, and this category should maintain the individuals as such. Of course, paradoxes will arise immediately, for if the individual is more important than relationality, we go back to the ideas of autarchy and autonomy; but if the relation is substantialized, then the individuals are a mere illusion. As Jean-Luc Nancy claimed (2013), philosophy is still in debt with the idea of relation and community. I am convinced that the only possible way to understand what community means is by challenging the paradigm of autarchy and to find a new paradigm to define life, one that already finds relationality as the very essence of what is living.

Bibliography

- Aristotle. *De Anima*.
- _____ *De iuventute et senectute. De vita et morte. De respiratione*.
- _____ *Metaphysica*.
- Balme, D. M. (1987). "The place of Biology in Aristotle's philosophy", in: *Philosophical Issues in Aristotle's Biology*, ed. by Gotthelf, Allan and Lennox, James G., 9-20. Cambridge: Cambridge University Press.
- Boeri, Marcelo. (2015). "Introducción", in: Aristóteles, *Acerca del alma (De Anima)*. Buenos Aires: Colihue.
- Canguilhem, Georges. ([1977] 1988). "The Question of Normality in the History of Biological Thought", in: *Ideology and Rationality in the History of Life Sciences*, 125-145. Cambridge (Massachusetts), London (England): The MIT Press.
- Diéguez, Antonio. 2008 "¿Es la vida un género natural? Dificultades para lograr una definición del concepto de vida", in: *ArtefaCToS*, vol. 1, n. 1, 81-100.
- Dumery, H. (1957) *Le problème de Dieu en philosophie de la religion: Examen critique de la catégorie d'Absolu et du schème de transcendance*. Paris: Desclée de Brouwer.
- Freeland, Cynthia. (1987). "Aristotle on bodies, matter, and potentiality", in: *Philosophical Issues in Aristotle's Biology*, ed. by Gotthelf, Allan and Lennox, James G., 392-407. Cambridge: Cambridge University Press, 1987, pp. 392-407.
- Gregersen, Niels Henrik. (1998) "The Idea of

Creation and the Theory of Autopoietic Processes", in: *Zygon: Journal of Religion and Science* 33: 333-367.

- Koshland Jr., Daniel. (2002). "The Seven Pillars of Life". In: *Science*, Vol. 295, 22 March, 2215-2216.
- Maturana, H. and Varela, F. ([1973] 2003). *De máquinas y seres vivos. Autopoiesis: la organización de lo vivo*. Buenos Aires: Lumen.
- Nancy, Jean-Luc. (2013). *Être singulier pluriel*. Paris: Galilée.
- Thomas Aquinas. *Compendium Theologiae*.
- _____ *Summa Theologiae*.
- Sanchez Sorondo, M. (2010) "Qu'est-ce que la vie?", *Transversalités*, 2010/2 (n. 114): 211-235.
- Zizioulas, John D. (1997). *Being as communion*. Crestwood, NY: Saint Vladimir's Seminary Press.
- _____ (2007). *Communion and otherness*. New York, London: Bloomsbury T&T Clark.

Endnotes

[1] An analysis of the reciprocal influence between Aristotle's metaphysical and biological works is important to understand how philosophical notions have an empirical research basis in natural organisms, and, at the same time, how biological observations are tinged by broader philosophical interests. See: Balme 1987.

[2] The influence of medicine could be a central datum for this turning point in Aristotle's biology. We should remember that, on the one hand, his father was a physician, and, on the other hand, Aristotle knew the writings of Hippocrates and his school. There is a very interesting passage where Aristotle claims a very close relationship between medicine and natural philosophy: *De iuventute et senectute. De vita et morte. De respiratione*, 480b.

[3] For the various meanings of *arché*, see: *Metaphysica*. V, 1, 1013a.

[4] To have a note on this discussion on the concept of *órganon* and its semantical ambivalence, see: Boeri 2015, 58.156). There, Boeri states: "*órganon* puede significar tanto 'instrumento' como 'órgano', y es claro que, al menos en algunos pasajes, Aristóteles saca provecho de esta ambigüedad: un *órganon* en un animal es un 'instrumento biológico', algo que sin duda nunca puede ser un hacha o una cama, que solamente son instrumentos artificiales".

[5] In a very interesting article, Cynthia Freeland (1987) analyzes the meaning of bodies and matter on behalf of the hylemorphic theory of Aristotle. The paper centers on the paradox concerning soul's definition as the first form of a body that has life potentially, since if it has life potentially, then is already living. Therefore, the question that arises is how to think the *body* as the *matter* of living beings, which is not as clear as the difference between soul and form. The central thesis of the paper is the importance of the analogy between art and nature in Aristotle to understand matter in connection with *function* (*érgon*), and then to understand that "some matter (or material configuration) is hypothetically necessary for a certain end or goal to be realized" (394). Then, "following Aristotle's advice, in explaining form-matter relations we should first describe an artifact's (or organ's) function, and then list the subordinate functions its material constituents must perform" (396). This connection between matter-form and function is stressed by the understanding of "potentiality" (*dynamis*) from the verb *dynasthai*, which means "to be able": "For Aristotle, a given matter's potentialities are its capacities to become or to be certain things -i.e. to be formed into, and serve in, artifacts (or organs) having particular functions. Aristotle is willing to call the matter actually in a thing 'potential' because it preserves its capacities" (396). Using a text from "In Generation of Animals", Freeland shows how Aristotle draws a parallel between a human father and a carpenter working in wood (that is, between nature and art): the agent would be the carpenter, on one side, and the father, on the other; the tools, the saw and the semen; the motions, Sawing, Heating, etc.; the results, a house and a baby; the material, wood and *katamenia* (menstrual fluid). Then, the author concludes: "Artifactual analogues like these serve usefully to model the even more complex and subtle interweavings of form and matter, function, and organ, which characterize the true, vital, self-perpetuating living substances, from rational animals down to the lowliest of insects" (407). The centrality of this paper in our hypothesis is that it stresses the semantical displacements of biological concepts from art to nature, and, therefore, the semantical crosses between the art of politics and the explanation of the living.

[6] The semantical displacements concerning organization and totality can be also found, and at a very high degree, in medicine. The key notion is, in this case, harmony (*harmonia*), a concept that is essen-

tial in Pythagoric tradition, but also in Hippocratic medicine. What is meaningful is that Aristotle (*De Anima*, 408a25-408b-20) refuses to identify the soul with harmony, for soul is not the proper disposal of the whole, but the principle of this disposition itself. In Aristotle's words, harmony is more of a property of the elements of the body than a characteristic of soul, for harmony is a certain proportion in a compound, whereas soul is, essentially, simple.

[7] See: *De juventute et senectute, de vita et morte, de respiratione*, 467b10-468a25. On the one hand, we can see clearly the economic and political metaphors, where the heart can pursue its central and regent function by its place in the center of the body (*De juventute, senectute...* 469a25-35). On the other hand, we should point out the importance of *fire* as a natural metaphor to signify a vital phenomenon, mostly since heating is an essential sign of life (and that is why the heart has a heating function). This metaphor can be very suggesting, since fire is the only natural element that seems to have the property of feeding itself from itself, as Heraclitus had seen.

[8] In *De Anima*, Aristotle uses the word *enkratos* to signify the regency of reason towards passions (433a1-8). We are still in the domain of political metaphors: *arché, nómos, krátos*.

[9] See: *Metaphysica*. 1072b 20-30 and 1073a 5-15. Aristotle is not clear about this subject, for he leaves this question open when he inquires if the definition of soul is unequivocal or if this definition differs according to the kind of being we are considering, explicitly mentioning the case of "god" (see: *De Anima*, 402b5-8).

[10] "[La máquina autopoietica] es una máquina organizada como un sistema de procesos de producción de componentes concatenados de tal manera que producen componentes que: i) generan los procesos (relaciones) de producción que los producen a través de sus continuas interacciones y transformaciones, y ii) constituyen a la máquina como unidad en el espacio físico" (Maturana and Varela 2003, 69).

[11] In its *Preface*, Humberto Maturana (2003) explains that his interest in living beings is centered in its individual condition, in its *autonomy* (11). This is why every biological theory, including the evolutionary ones, must place their attention mainly in the in-

dividuals (see: Chapter IV).

[12] “La reproducción y la evolución no entran en la caracterización de la organización viva, y los sistemas vivientes son definidos como unidades por su autopoiesis. Esto es significativo porque hace que la fenomenología de los sistemas vivos dependa solo de su condición de unidades autopoieticas” (Maturana and Varela 2003, 88).

[13] Although neither of the two biologists are aware, this kind of characterization is very similar to Leibniz’s concept of *monad*. As a matter of fact, Leibniz’s metaphysical and cosmological system should be studied in this paper’s direction, for the idea of autarchy should be taken with the idea of monarchy; in other words, the *One* is the only ultimate principle, and unity is the main metaphysical feature of every being.

[14] “... [U]na organización autopoietica constituye un dominio cerrado de relaciones especificadas solamente con respecto a la organización autopoietica que ellos componen, determinando, así, un espacio donde puede materializarse esta organización como sistema concreto, espacio cuyas dimensiones son las relaciones de producción de los componentes que lo constituyen” (Maturana and Varela 2003, 79).

[15] “Las relaciones que determinan, en el espacio en que están definidas, la dinámica de interacciones y transformaciones de los componentes y, con ello, los estados posibles del sistema, constituyen la organización de la máquina” (Maturana and Varela 2003, 67).

[16] “En consecuencia, si los sistemas vivientes son máquinas autopoieticas, la teleonomía pasa a ser solamente un artificio para describirlos que no revela rasgo alguno de su organización, sino lo consistente que es su funcionamiento en el campo donde se los observa. Como máquinas autopoieticas, los sistemas carecen, pues, de finalidad” (Maturana and Varela 2003, 77).

[17] Although I will address this inter-dependence between ethical and biological concepts of life in future papers, the semantical displacements between them can be found in Maturana himself, who writes in his Preface: “Estas reflexiones me permitieron reconocer y aceptar que el sentido de mi vida era mi tarea y mi sola responsabilidad. Pero, también me lle-

varon a ver que la forma de ser autónomo de un ser vivo estaba en el hecho de que todos los aspectos del operar de su vivir tenían que ver sólo con él, y que este operar no surgía de ningún propósito o relación en la que el resultado guiase el curso de los procesos que le daban origen. Por esto, desde 1960 orienté mis reflexiones a encontrar un modo o forma de hablar de los seres vivos que captase la constitución de su autonomía como sistemas en los que todo lo que pasa con ellos en su operar como unidades discretas, tanto en su dinámica relacional como en su dinámica interna, se refiere sólo a ellos mismos, y ocurre como una continua realización de sí mismos en una dinámica relacional en la que el resultado no es un factor en los procesos que le dan origen” (2003, 12). On the other hand, Francisco Varela himself is aware of the belonging of the *autopoiesis* theory in the 20th century philosophy, characterized mainly by the ontological shift taken by the notion of *interpretation*, which is at the core of the idea of living beings as autopoietic systems (2003, 34). But we also could stress the cultural influence of existentialism, and of a certain ideal of ethical and moral autonomy as the core of post-modern way of living.

[18] Both Maturana and Varela reject this extrapolation of the term *autopoiesis* to define sociological realities, since this term is only significant with respect to living individuals; however, as a methodological or epistemological notion, it can be quite useful. It is interesting that Francisco Varela describes this use of the word “autopoiesis” in Sociology as a case of metonymy (2003, 51).

[19] “Respondeo dicendum quod. Ad cuius evidentiam, considerandum est quod, cum vivere dicantur aliqua secundum quod operantur ex seipsis, et non quasi ab aliis mota; quanto perfectius competit hoc aliqui, tanto perfectius in eo invenitur vita”.

[20] “Unde, licet quantum ad aliquid moveat se, tamen oportet quod quantum ad aliqua ab alio moveatur. Illud igitur cuius sua natura est ipsum eius intelligere, et cui id quod naturaliter habet, non determinatur ab alio, hoc est obtinet summum gradum vitae. Tale autem est Deus. Unde Philosophus, in XII *Metaphysica*, ostenso quod Deus sit intelligens, concludit quod habeat vitam perfectissimam et sempiternam: quia intellectus eius est perfectissimus, et semper in actu”.

[21] “[V]ivere Dei est eius intelligere. In Deo autem

est idem intellectus, et quod intelligitur, et ipsum intelligere eius. Unde quidquid est in Deo ut intellectum, est ipsum vivere vel vita eius. Unde, cum omnia quae facta sunt a Deo, sint in ipso ut intellecta, sequitur quod omnia in ipso sunt ipsa vita divina". In a late work, the *Compendium theologiae* (chapter XXXV), Thomas Aquinas even states that the etymology of the Greek word for God (*théos*) can be traced to the Greek word meaning "to see" or "to consider"; therefore, God identifies itself with Intelligence in his very nature.

[22] We can find contemporary theologians still arguing from this thomistic perspective on Life (see: Sanchez Sorondo, M. 2010).

[23] This paradox finds its ultimate expression in the doctrine of the Trinity, to which I will come back in further papers.

[24] One could find, in a text by the Orthodox Chris-

tian theologian John D. Zizioulas (2007), an interesting reflection on the relational essence of God's Life, and, more importantly, in the relational dimension of being itself (1997), from a Trinitarian reflection. I should underline that the search for a more relational ontology has been made already, mainly by G. W. F. Hegel, and by A. N. Whitehead; however, I think that both attempts are still within the "autarchy paradigm," and their ultimate bet on a *systematic* ontology turns relationality into a mere moment of a Unity in Process. To overcome this paradigm, one should stress plurality over unity, and therefore sidestep the "henological reduction" (Dumery, 1957) that seems to be in the roots of Western metaphysics, isolating beings and that turning God into an Absolute Transcendent Unity (impassible, immutable, and so forth).

[25] It is quite meaningful that the meditation on alterity blooms from the ethical question, as Martin Buber, Franz Rosenzweig, Gabriel Marcel and Emmanuel Levinas pointed out.