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# The rationality in Economics: current metaphysical, epistemological, and anthropological philosophical assumptions regarding mind and body

## La racionalidad en economía: presupuestos metafísicos, epistemológicos y antropológicos contemporáneos acerca de la relación entre mente y cuerpo

Economics is a social science that studies human behavior that involves choosing among different scarce resources (means) in order to achieve definite and particular goals (ends). So, Economics not only is concerned with the production, consumption, and transfer of wealth but also deals with very wide-ranging economic phenomena that could be of interest for other disciples like how many hours to study, choosing the right university for college, doing volunteering work or creating a new company. Economics, as a social science is concerned with developing theories that study the human person decision-making process allocating scarce resource, means that have alternative uses, to specific ends. As science economics constructs theories seeking to describe and explain relevant relationships between economic phenomena.

*#rationality, #economics, #metaphysics, #epistemology, #anthropology, #naturalism, #mind, #Body*

La economía es una ciencia social que estudia el comportamiento humano y que supone elegir entre diferentes recursos (medios) escasos para alcanzar objetivos definidos y particulares (fines). En consecuencia, la economía no solo se preocupa por la producción, el consumo y la transferencia de riqueza, sino que también se ocupa de fenómenos

**económicos muy amplios que pueden ser de interés para los agentes. No es neutro decidir cuántas horas estudiar, en qué universidad hacerlo, decantarse por un trabajo como voluntario o por crear una nueva empresa. La economía, como ciencia social, tiene que ver con el desarrollo de teorías que estudien el proceso de toma de decisiones de la persona humana, la asignación de recursos escasos, la valoración de las distintas alternativas y la elección más adecuada para alcanzar el fin pretendido. Como ciencia, la economía construye teorías para describir y explicar esas relaciones relevantes entre esos diversos fenómenos económicos.**

**#Racionalidad, #economía, #metafísica, #epistemología, #antropología, #naturalismo, #mente, #cuerpo.**

The subject of Economics is the human acting person. Therefore, the process to build a theoretical framework in Economics is based on several assumptions or premises about the human person. Mainstream Economics is founded on the main assumption that the human agent is rational. Therefore, Economics' decisions are «rational» decisions.

The idea of rationality in Economics has an implicit assumption about the anthropology of the economic agent with a clear naturalistic view of the person, in which the person is pure material, excluding its soul. So, the rationality is an extension or a development of the material part. This vision of the human person (implicitly) negates the existence of a soul. In the last 20 years, new branches came from Economics, such as Behavioral Economics and Neuroeconomics, which are also negating the existence of the human soul. My main thesis is that science in general, and Economics in particular, have gone through the implicit assumption that the human soul does not exist due to metaphysical, epistemological, and anthropological philosophical assumptions, which has produced real scientific limitations for the scientific world. Therefore, in order to improve our science(s), we have to offer philosophical alternatives on the true union of body and soul, which will provide a more realistic assumption of the human person who makes (economic) decisions.

This paper has four parts. First, it presents the meaning of rationality in Economics. Second, it explains Ockham's metaphysical and Descartes' epistemological revolutions. Third, it describes the anthropological consequences of Naturalism. Four, it defines the true philosophical union of body and soul. Finally, it draws some conclusions.

## 1. The Rationality in Economics

The standard model of Neoclassical Economics is based on rationality, which means that the economic agent makes a decision using a mathematical framework inspired by copying Physics

as the ideal science which uses mathematical tools to describe its theories and laws. The Encyclopedia Britannica defines rationality as a concept associated with the maximization of subjective utility, meaning the maximization of one's desires.<sup>1</sup> This mathematical foundation started in the 1930s when Neoclassical Economics following the lead of some economist like Samuelson, Arrow, and Debreu began to investigate the mathematical structure of consumer choices and behavior in markets. So, they created models focusing on idealized choices and efficient allocation of resources rather than seeking to describe how people choose as psychologist do and how market work. The result was the Weak mathematical Axiom of Revealed Preference (WARP) developed by Samuelson, who founded the revealed preferences approach that was the heart of the Neoclassical revolution. The revealed preferences approach starts from a set of very simplistic assumptions called axioms, which would integrate a theory (e.g., utility) in formal language. Surprisingly the theory constructed on simple axioms could make sharp predictions about what kind of choice patterns should or should not be observed. All these theories demonstrate that if one obeys these axioms must behave as both as if he has a continuous utility function and as if his actions were aimed at maximizing total obtained utility. The result was that at the end of this period, Neoclassical Economics seemed incredibly powerful. These theories of consumer choice became the basis for the demand part of the Arrow-Debreu theory of competitive «general» equilibrium, a system in which prices and quantities of all goods were determined simultaneously by equating supply and demand. This allowed economist to «predict» or anticipate all consequences of policy changes, which brought a sort of analysis that became unique to economics and increase its influence in regulation and policy-making.

## 2. The Scientific Problem is rooted in the Epistemological and Metaphysical revolutions

The use of a mathematical tool to explain human action was motivated by Ockham's metaphysical and Descartes' epistemological revolutions, and their consequence for science.

William Ockham's metaphysical revolution<sup>2</sup> departs from perennial philosophy by denying the reality universals. He argued that when we refer to «Messi is a man», the word «man» does not refer to any reality inside or outside that particular reality (Messi), this is contrary to Aristotle and St. Thomas. According to Ockham, the universal noun has no foundation in nature.<sup>3</sup> So, in nature, there are only particulars. This departure from the existence of universals means for

<sup>1</sup> See Cf. <https://www.britannica.com/topic/economic-rationality>. Accessed on May 29, 2019.

<sup>2</sup> William Ockham (c. 1287 —c. 1347) was an English Franciscan friar and scholastic philosopher and theologian. For information about him look at the Stanford Encyclopedia of Philosophy: <http://plato.stanford.edu/entries/ockham/> or Internet Encyclopedia of Philosophy: <http://www.iep.utm.edu/ockham/>

<sup>3</sup> Scott W. Hahn and Benjamin Wiker, *Politicizing the Bible: The Roots of Historical Criticism and the Secularization of Scripture*, 47.

Ockham that with our intelligence, we create general concepts that are reflected in «universals» names like «man». The key difference is that if these “«universal» terms are not rooted directly in reality, they are only names. That is why Ockham’s philosophical position was called «Nominalism» (from the *Latin*, *nomen*: name).<sup>4</sup>

The practical implications of Ockham’s theological-philosophical position are six:

First, there are no metaphysical principles: «since nothing can be read from nature, then there could be no philosophical climbing from the depending creation to an understanding of any necessary metaphysical principles or God Himself».<sup>5</sup>

Second, there is a separation between supernatural and natural, and both are not connected. Since (for Ockham), we cannot understand or reach to God using any metaphysical principles, the only possible connection could be made from God to us through his revelation. However, even revelation is not totally accessible to us because still «God’s power is absolute and His ways ultimately inscrutable», that is why the supernatural does not presuppose and build upon the natural and the two are radically separate.<sup>6</sup>

Third, Theology and Faith are fictitious and irrational<sup>7</sup>; therefore, the authority of the Church is totally diminished. Since for Ockham, now philosophy is entirely independent of objective truths and revelation, Theology is not useful anymore, and the authority of the Church is fabricated by Faith. Therefore they need to be replaced by a new method and a new authority.

Fourth, in practice, we have to replace Faith by reason and the authority of the Church by the secular’s authority of philosophy. Now that Ockham created a vacuum by destroying metaphysical truths, faith, and theological authority, Philosophy is the right tool to support the new secular order as an independent authority in natural affairs and defines reason entirely above faith.<sup>8</sup>

Fifth, there is now a reductionism in physics that favored the development of materialism. As Hahn and Wiker describe in their book: «Ockham’s nominalism left a vacuum that would be filled by another kind of universal.»<sup>9</sup> Ockham’s denial of universals led to a kind of reductionism in physics that favored a materialistic view of the world. Because nominalism focused on particulars as a source of intelligibility, it lends to the notion that particular parts are more important than wholes. This reductionism to the particular is essential to the development of science.<sup>10</sup>

Sixth, Ockham’s analysis seriously deflates the importance of metaphysics and physics, then of the three greatest theoretical sciences enumerated by Aristotle, leaving the opportunity to the rise of the third one, mathematics,<sup>11</sup> which Descartes will develop even further.

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<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*, 52

<sup>8</sup> *Ibid.*, 58.

<sup>9</sup> *Ibid.* 53.

<sup>10</sup> *Ibid.* 54.

<sup>11</sup> *Ibid.* 52.

Descartes's epistemological revolution consisted in the process of «mathematization, which is the mechanization and mastery of nature» by the use of geometry and mathematical construction is a very active and constructive epistemological process to determine what is true and what is dubious. Therefore, by using the mathematical tool, we can «conceive very clearly and distinctly» all true things, and on the contrary, all things that fail to satisfy this epistemological mathematical criterion, «should be considered entirely dubious.»<sup>12</sup> Descartes's mechanism of «mechanization» means the integration of art and nature that makes the person powerful, because the «laws of mechanics...are the same as the laws of nature so that there is no essential difference between a machine and a living thing.»<sup>13</sup> For Descartes, «life must be reduced to a mechanism for the same reason that nature must be reduced to the geometrically defined homogeneous substance.»<sup>14</sup>

### 3. The anthropological consequences of Naturalism

The book, «Naturalism» by Dr. Goetz and Dr. Taliaferro shows that the modern anthropological view of the human person without a soul is the consequence of Naturalism. Naturalism is the philosophy which believes that everything that exists is a part of nature. This means that something is a part of nature if and only if it is describable and explainable in an ideal, complete science or, more specifically, physics.<sup>15</sup> In practice, modern scientists believe in physicalism or materialism, which is the view that everything that exists is physical or material in nature. Both contemporary physicalism and materialism is a form of strict naturalism.<sup>16</sup> It seems that strict naturalism is a hard belief in taking for any science, because of its implications. The goal of strict naturalism is to take the beliefs, desires, preferences, choices, and anything that appear to be part of our conscious, intelligent, psychological life and explain them in terms that are nonconscious, nonmental, and nonpsychological.<sup>17</sup>

Goetz and Taliaferro describe strict naturalism as an ideal scientific philosophy that ultimately excludes any teleological explanatory role purposes. I would call it an ideal scientific philosophical «belief» with very powerful implications, such as agents do not make free choices. Therefore, strict naturalism negates the existence of our libertarian freedom because of undetermined free

<sup>12</sup> Scott W. Hahn and Benjamin Wiker, *Politicizing the Bible: The Roots of Historical Criticism and the Secularization of Scripture*, 267.

<sup>13</sup> *Ibid.* 273.

<sup>14</sup> *Ibid.*

<sup>15</sup> Goetz, Stewart, and Charles Taliaferro. *Naturalism*. Wm. B. Eerdmans Publishing Co. Grand Rapids, Cambridge, 2008, 14.

<sup>16</sup> *Ibid.*, 15.

<sup>17</sup> *Ibid.*, 16.

choices are choices that are ultimately explained by the purposes of the agents who make them.<sup>18</sup> Strict naturalism advocates of scientism and positivism in the application to science.

What is more, strict naturalism also reject dualism, the belief that there is an immaterial soul, which is the principle of life in union with a body? Goetz and Taliaferro show that strict naturalism, while scientific, acknowledges the apparent duality between the mental self with its subjective experiences and purposes and, the physical world that includes its body. However, it believes that this duality is ultimately illusory.

Many scientists today believe in strict naturalism because of the explanatory successes of science under the illusion that everything can be explained in nonteleological, physical causal terms.

So, which is the effect of Naturalism to the scientific methodology? It is very important to know that naturalism ultimately excludes any explanatory role for purposes with the result that no explanation can ultimately include mention of them (naturalism countenances explanations which make no mention of purposes), but it also excludes or is incompatible with the view that agents make undetermined, free choices. Goetz explained in his book that Naturalism is incompatible with libertarian freedom because of undetermined free choices, which are choices that are ultimately explained by purposes of the agents who make them. By negating the idea of purpose, Naturalism also believes that the freedom for higher transcendental purposes does not exist. Hence, because strict naturalism excludes ultimate explanations regarding purposes, it excludes libertarian free will. In other words, when naturalists talk about human actions, they insist that all action be determined to occur by non-mental events. This, it seems, is a very serious problem, which combines the pure «Naturalist» implementation of Neo-classical Economics.

## 4. The Solution: the right soul & body philosophical framework to dialogue with the Scientific minded

So far I showed that science in general, and Economics in particular, have gone through the implicit assumption that the human soul does not exist due to metaphysical, epistemological, and anthropological philosophical errors and assumptions, which has produced real scientific limitations for the scientific world. Therefore, I believe that in order to improve our science(s) we have to offer a philosophical alternative on the true union of body and soul, which will provide a more realistic assumption of the human person who makes decisions.

The first step is to prove the logical trap of naturalism, which is Naturalism's central argument for the causal closure (principle of physicalism or materialism). This means that strict naturalism

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<sup>18</sup> *Ibid.*

offers no place for any explanation that goes beyond the domain of physics, chemistry, and biology. The problem is that according to strict naturalism, a scientific examination of the causes of bodily action leaves no explanatory room for anything nonphysical, scientific explanations must by their nature be limited to physics, chemistry, and biology.

Goetz and Taliaferro use a simple argument against strict naturalism. The reason that in practice, every person must cause events to occur in the physical world in virtue of our choices for a purpose (write this paper for our class). If we make free choices that are explained teleologically and carry them out, then there must be irreducible mental-to-physical causation.

Goetz and Taliaferro's arguments against strict naturalism assume these simple steps or practical assumptions taken not out of thin air but from our experience (which is more scientific):

- 1) A choice is a mental action.
- 2) When we make choices, we do it for a reason, a purpose, an end, or goal for choosing.
- 3) Agents make decisions; this assumes the existence of an agent.
- 4) We are free to choose from different alternatives.
- 5) An explanation of choice in terms of a reason or purpose is a teleological explanation.
- 6) Having a belief or desire is part of the agent capacity to make choices.
- 7) Including a good state. We know or anticipate the end goal to be produced, and we act to bring about that end.

A very simple way to prove the inconsistency of strict naturalism is to use this reasoning:

- 1) Many modern scientists believe that strict naturalism is the true philosophy.
- 2) Strict naturalists believe that there are no ideas, beliefs or mental process (no irreducible psychological or mental properties and events), there is no ultimate & irreducible purposeful explanation of events, there is no free will and, there is no immaterial soul.
- 3) Believing (and all the assumptions of strict naturalism) is a mental process.
- 4) Therefore, strict naturalism cannot be a true philosophy.

By its own definition and assumptions, ideas, beliefs, or mental process do not exist. If they do not exist, strict naturalism cannot claim that ideas, beliefs, or mental process do not exist. I do think that strict naturalism fails to be a good philosophy. I would call it a pseudo-philosophy, an unfounded, unreasoned belief, or an ideology that cannot be true due to its vicious reasoning. Therefore, it is illogical and untrue.

The second step is to teach the basic philosophical framework that we could use to have a deeper dialogue with the scientific-minded, which includes five basic philosophical areas of analysis, which could be described as:

- 1) **Metaphysics** is the study of existence. It tries to answer the fundamental question: **What is real?** Aristotle's *Metaphysics* is interested in ideas such as «being as such», the first causes of things and, that which does not change. Modern *Metaphysics* is also

interested in questions of causation, free will, freedom and determinism, the mental and the physical states and philosophical account of time and space.<sup>19</sup>

- 2) **Epistemology** is the study of knowledge. It tries to answer the fundamental question: **What can be known?** It is the study of ideas in themselves. It tackles how we obtain knowledge of the world and how we might validate it as true.<sup>20</sup>
- 3) **Ethics**, it is the study of human action. It tries to answer the fundamental question: **What should I do?** Ethics presupposes the capacity of human action, carried out with deliberation and freedom, and consequently, the person bears the responsibility inherent in any human action. In that way, ethics is more than avoiding wrong; it is primarily about doing good in human actions.<sup>21</sup>
- 4) **Politics**, it is the study of human activity within a society. It tries to answer the fundamental question: **What is allowed and disallowed for society?** Politics is the study of how ethics can be applied in a society or a group of people involving some kind of social contract.<sup>22</sup>
- 5) **Human Ecology**, is the study of complex adaptive systems. It tries to answer the fundamental question: **How we can create a balanced and sustainable ecosystem in which the human person takes responsibility in creating, sustaining, and enhancing it?** Ecology is the science of relationships between living organisms and their environment. Human ecology is about relationships between people and their environment. In human ecology, it is useful to think of human-environment interaction as the interaction between the human **social system** and the rest of the ecosystem.<sup>23</sup>

In Economics as in other sciences, we explicitly deal with the scope of our knowledge by asking *what can be known?* (**Epistemology**) *What should I do personally?* (**Ethics**) *Which are the best implementations for the community or society* (**Politics**)? Even in Microeconomics, we

<sup>19</sup> van Inwagen, Peter and Sullivan, Meghan, «Metaphysics», *The Stanford Encyclopedia of Philosophy* (Spring 2016 Edition), Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/spr2016/entries/metaphysics/>>.

<sup>20</sup> For a deeper study of Epistemology see: Steup, Matthias, «Epistemology», *The Stanford Encyclopedia of Philosophy* (Fall 2016 Edition), Edward N. Zalta (ed.), <http://plato.stanford.edu/archives/fall2016/entries/epistemology/>

<sup>21</sup> C.f.: Domenech Melé, *Management Ethics: Placing Ethics at the Core of Good Management*. Palgrave MacMillan, New York, 2012.

<sup>22</sup> Tom Jackson, *Philosophy: An Illustrated History of Thought*. Shelter Harbor Press, New York, 2014, 9.

<sup>23</sup> The social system is everything about people, their **population** and the psychology and **social organization** that shape their behavior. The social system is a central concept in human ecology because human activities that impact on ecosystems are strongly influenced by the society in which people live. Values and knowledge –which together form our worldview as individuals and as a society– shape the way that we process and interpret information and translate it into action. Technology defines our repertoire of possible actions. Social organization, and the social institutions that specify socially acceptable behavior, shape the possibilities into what we actually do. Like ecosystems, social systems can be on any scale –from a family to the entire human population of the planet. Cf. Jackson, T. (2014). *Philosophy: An Illustrated History of Thought*. New York, Shelter Harbor Press.



are interested in the study and administration of complex adaptive systems in the context of the theory of the firm. In Macroeconomics we are also interested in the study of complex adaptive systems in the context of GDP and Economic Growth, Fiscal or Monetary Policy, Inequality and Poverty, or International Finance and Global Trade (**Human Ecology**). Finally, Economics as a science is very good at discovering the relationships between the human social system and their interactions with the environment. Lastly, even though in Economics, we do not explicitly do **Metaphysics**, we assume a metaphysical framework of the world, the subject of the science, the human person, and even the existence of God. In practice, many times, these metaphysical assumptions are implicit in our thinking, and it also could be unconscious. Therefore, in order to restore the metaphysical framework to be implemented in the modern scientific field, I will use Fr. Oscar Missas' Integral Anthropological framework that consists of three parts:<sup>24</sup>

- 1) The true anthropological composition of the person is the union of soul and body following the Aristotelic and Thomistic foundations.
- 2) The human faculties or potencies, which are two: from the mind and the body.
- 3) The organs through which the faculties operate: the brain-mind relationship.

This project starts from the Hylemorphism (Aristotelian Thomistic) duality model, which highlights the unity of the human being without losing it in the analysis of its parts that is, always guaranteeing the ontological uniqueness of the whole composed. What is more, Fr. Missas explains that this framework also includes the concept of «self-organization» of Physics and the Aristotelian concept of «formal causality». Furthermore, by seeing the organized body or the living body or animated body, we also see his organizer, its organizing soul. Besides, this project is a direct response against Naturalism because it states that the form (soul) possesses a power to act together with matter (the Hylemorphism compound of the body & soul) in the specific manner that is, according to human nature, with purpose or intentionality.

Regarding the faculties or potencies of the mind, there are two faculties: understanding and will, which exceeding corporeality, they do not depend on body organs in his operation, they are exclusive potencies of the human person, and the acts of the intellect and the will are immaterial or spiritual. Therefore, we can deduce that the human faculties are spiritual faculties.

When we look at the faculties of the body, we refer to the sensitive and vegetative ones. These are exercised through a body organ, and they are common to humans, animals, and plants.

So, the relationship between body and soul is a relationship of unity, uniqueness, and diversity, in accord with our true human nature, with purpose or intentionality in our human action.

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<sup>24</sup> These ideas were taking at the class: *L'antropologia cristiana di fronte alla scienza*” taught by Fr Oscar Missas who is a professor at the Master in Scienze e Fede at the Ateneo Pontificio Regina Apostolorum, Rome, Italy in the Spring 2019.

Finally, the organs by which the faculties operate are the relationship between the brain and the body's organs. What is interesting is that human action exceeds the used organs (Trans-organic transcendence) even though the sensitive act is simultaneously psychic and neural, human sensitivity is oriented towards the service of ends. Therefore, there is a transcendence of intellectual operations.

## 5. Conclusions

In this paper, my main thesis is that science in general, and Economics in particular by the use of a rational human subject, have the implicit assumption that the human soul does not exist due to metaphysical, epistemological, and anthropological philosophical conventions. So, I traced the origin of William Ockham's metaphysical revolution, Descartes's epistemological revolution, and the anthropological consequences of current Naturalism. All these forces not only reject dualism, the belief that there is an immaterial soul, which is the principle of life in union with a body, but also that practical scientific idea that everything can be explained in nonteleological, causal physical terms. Naturalism is incompatible with libertarian freedom because of undetermined free choices, which are choices that are ultimately explained by purposes of the agents who make them. By negating the idea of purpose, Naturalism also believes that the freedom for higher transcendental purposes does not exist. Hence, because strict naturalism excludes ultimate explanations regarding purposes, it excludes libertarian free will. In other words, when naturalists talk about human actions, they insist that all action be determined to occur by non-mental events.

Consequently, in order to improve science(s) and scientific analysis, we have to teach in our Catholic Universities the anthropological revolution alternatives on the true union of body and soul, which will provide a more realistic assumption of the human person who makes (economic) decisions. Hence, the true anthropological composition of the person is the union of soul and body following the Aristotelic and Thomistic foundations, which defines two degrees of human faculties or potencies: from the mind and the body. Finally, there are organs through which the faculties operate: the brain (mind) and body relationship.

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