
PLATONIC PSYCHOLOGY AND ARISTOTELIAN PSYCHOLOGY VS COGNITIVISM

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Abstract

The famous Socratic phrase "Know thyself" initiates the movement of the human's reflection on the self and causes the opening towards" the thought which thinks himself" and towards searching and explaining the mechanisms through which the thought functions. Mental functions are structured, hierarchical and located inside the body for Plato. For Aristotle, mental functions are achieved by "moving" the pneuma within the anatomical system. The cognitivism is Platonic since it builds schemes and moves within them. In modern terms, he is concerned with the software.

Keywords: mental functions, Plato, Aristotle, cognitivism, emotions

Introduction

General premises

If not term "psychology" dates only from the early nineteenth century, psychological science is very old, although over time the study of the human psyche was associated with philosophy rather than with literature or medicine (Delay & Pichot, 1971, p. 1). Defining psychology is very difficult because its limits are fixed both by its subject, its research methods and the spirit in which these methods are investigated, but also by the ensemble of all the explanations that seek to constitute a complete and accurate definition. However, an initial general definition of psychology might be as follows: the scientific study of the facts of consciousness (as a clearly defined object of research) (Ribot, 1928, p. 278). Determining the nature of the facts of conscience by the initial methods of description and analysis has led in time (and due to influences from other areas

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such as Newton's physics, Hartley– the founder of associationism, Darwinism, genetics etc.) to the diversification of the methodological tools of current psychology, to which we can add its by opening new interdisciplinary disciplines: neuroscience, computer science etc.

However, for this first part of the paper we are interested in a method from the early phase of psychology, namely, the method of introspection—a controversial method, more or less contested. Why? “Given that introspection has often been used rather a philosophical than a psychological perspective”. Some examples: Socrates’ “Know Thyself” has an ethical opening, Descartes’ “Cogito ergo sum” was based on a metaphysics of the soul, the Bergsonian introspection under the name of intuitionism introspection or the Husserlian phenomenology. Thus, there was almost always a link between a call to introspection and a philosophical position, ethical or metaphysical, which helped diversify the suspicion of the psychologists who wanted to be "scientific" (Delay & Pichot, 1971, p. 4).

Specific premises

The famous Socratic phrase “Know thyself” initiates the movement of the human’s reflection on the self and causes the opening towards “the thought which thinks himself” and towards searching and explaining the mechanisms through which the thought functions. The essence of human soul in a Platonic view is that of knowledge, having as main object the knowledge of the self and of what the soul is in itself. Basically it is nothing more than the thought which knows and contemplates itself, which is precisely what the Socratic phrase expresses. Aristotle will move this object of knowledge towards the explanation of these thought mechanisms at the formal level, laying the foundations of what today we call logics. But the way in which Aristotle presents and explains mental functions is extremely problematic and controversial, as attested by many contemporary concerns (Lloyd, 1978; Burnyeat, 1983; Sorabji, 1971/1979; Bolton, 1987).

Plato’s Psychology

In the first part of this subdivision of my paper, I shall refer to the classic work of Brès (2000, 315) that vastly covers all sections of psychology’s problems in Plato. Medicine is considered by Plato a technique, a craft, but it

will become a way of knowing the actual human in its entirety, because medicine is dealing with the body and the soul is united with it. The aspect on which our attention is drawn Brès (2000, p. 338) is that Plato's psychological concerns are very ambiguous: in the youth Dialogues they are ambiguous, in the maturity ones quasi-inexistent, and in the old age ones-although there is a wealth of psychological observations of detail-there is no coherent psychological theory.

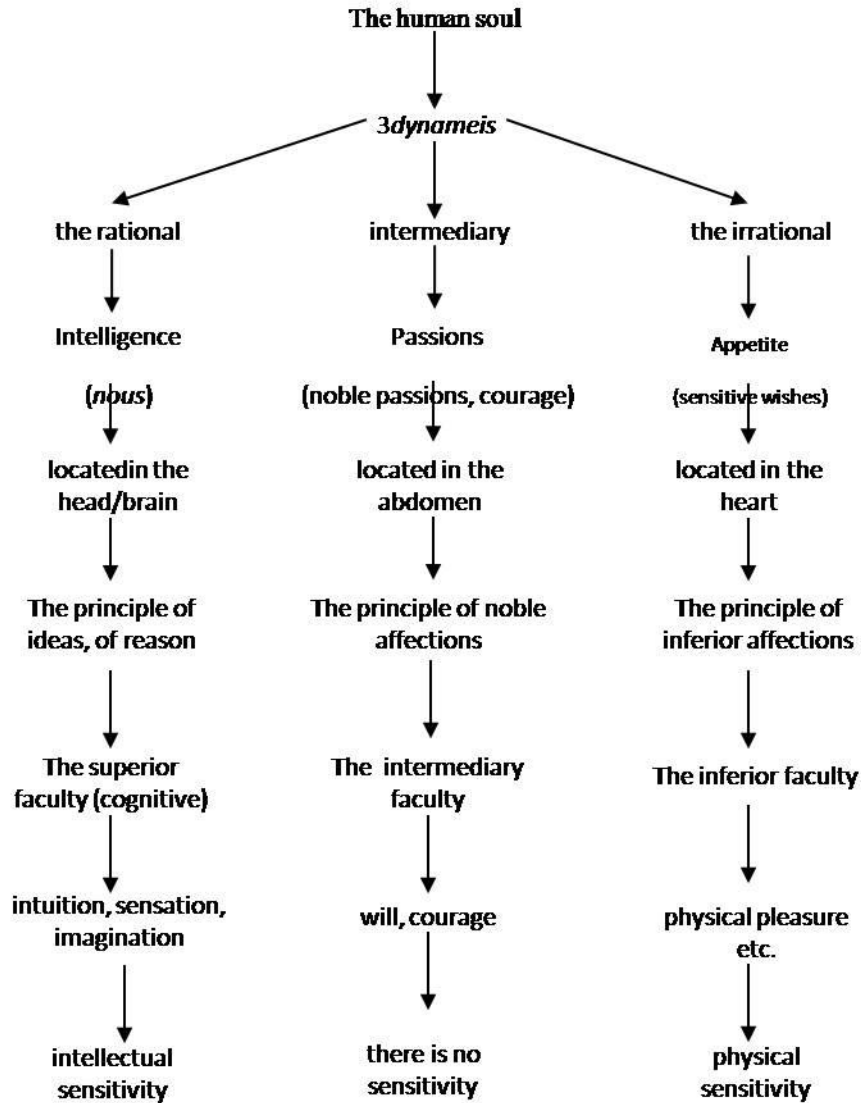
The mental functions

The soul, being not neither an idea, nor a body but united with the latter, receives the necessary faculties to be able to relate with external phenomena, and by which it can deal just with the sensible. Although it doesn't lose its simplicity, it "contracted" passions, desires etc. (see Benard, 1892, p. 252). Finally, Plato will "seek in man a function to serve as a liaison between passions and reason" (Brès, 2000, p. 348).

Depending on the method by which man knows, Plato developed a theory of the tripartition of the soul, which occupies a quasi-central and quite problematic place in his psychology. In this sense, he uses three terms: intelligence, passions and appetite. But first we have to "determine the difference between Platonic representation of the soul before the fourth book (The Republic) and the trilogy which is adopted in this context (...)" (Brès, 2000, p. 343). The argumentation held by Socrates in the conversation with Calicles in the dialogue *Gorgias* seems to distinguish in humans two levels: that of lower desires and that which coordinates or adjusts them. Then, Socrates comes only to suggest that there may be a possibility in man to guide himself towards the bottom of the soul (desires, passions) or towards the upper zone (self-control, thought, virtue). This tripartition will be clearer in the Republic. May be this intermediary stage was introduced so as Plato could better explicit how can a purely intellectual requirement to act more effectively on desires and passions (Brès, 2000, pp. 344-355).

According to Zeller (*apud* Benard, 1892, p. 253) we do not have three souls or three states of the soul (for the soul is indivisible in its nature), but three *dynameis* (we still use the Greek term, and not its translation – power, potentiality - to avoid possible confusions with the specificity of the term conferred by Aristotle), precisely because the soul is divisible in and through

such potentialities. Mental functions are structured, hierarchical and located inside the body, as shown in Scheme 1.



Scheme 1. The tripartition of the soul (Plato)

When we talk about intellectual sensitivity we are referring strictly to the cognitive faculty which lies at the top of the hierarchy. At this level we do not have just the intuition (that specific act of the mind that contemplates the truth in circumstances where no obstacle interposed between it and its line prevent this), the sensitive soul (which contains together with the sensation all the facts related to intelligence, which means the data of the sensitive: feeling, imagination), but also the memory, distinct from the reminiscence. All these have an intellectual sensitivity. Physical sensitivity has another kind of character and is the source of bodily pleasures and pains (delight, enjoyment or physical pain, suffering etc. are determined by bodily needs such as hunger, thirst etc.). However, happiness or moral suffering refers to the superior part and they belong to the intermediary. Noble passions belong to the faculty of willing, but this is not the same with sensitivity. The faculty of desire is placed between reason and sensitivity, always oscillating between the two. Thus, Plato will sometimes identify the will with the reason which is *dynamis* (a deliberative power), and other times with the desire (in *Menon*, *Protagoras*) (see Benard, 1892, pp. 255-256). "The designated place for various mental functions in the body indicates their position in a hierarchy of the psychological and of the moral" (Brès, 2000, p. 348). Thus, the inferior desires are far away from the intellect, in order not to affect it and thus the knowledge of the intelligible can be accomplished away from the corporal functions.

"In The Banquet era, and that of *Phaidros* or *The Republic*, Plato may choose between two ways of describing mental life. First, the simplest, is the classification of the different aspects according to a kind of hierarchy and their fulfillment in a number of instances, of which one, considered the interim, must ensure the passage between the other two. These conditions the attempt of understanding from the inside of what may be both reason and thoughtlessness, and how thoughtlessness becomes reason. On this second path, which is the "erotic" path, Plato went very far. But, considered in terms of modern psychology, Plato's analysis of love is somewhat uncompleted" (Brès, 2000, p. 347).

Is Plato a psychologist?

Benard (1892, p. 254) argues that there is a relationship between psychology and dialectics emphasized by the tripartite division of the soul through which Plato sets the many faculties which he ranks. In the three

faculties, three modern faculties are to be recognized: rationality, sensibility and will. Although the author argues that Plato, as a psychologist, remained a metaphysician and a moralist, Platonic metaphysics is the foundation of his psychology and his method is aprioric. The importance: the soul is indivisible in its substance, but divisible in its *dynameis*, which offers Plato the chance to distinguish and locate the faculties in the body.

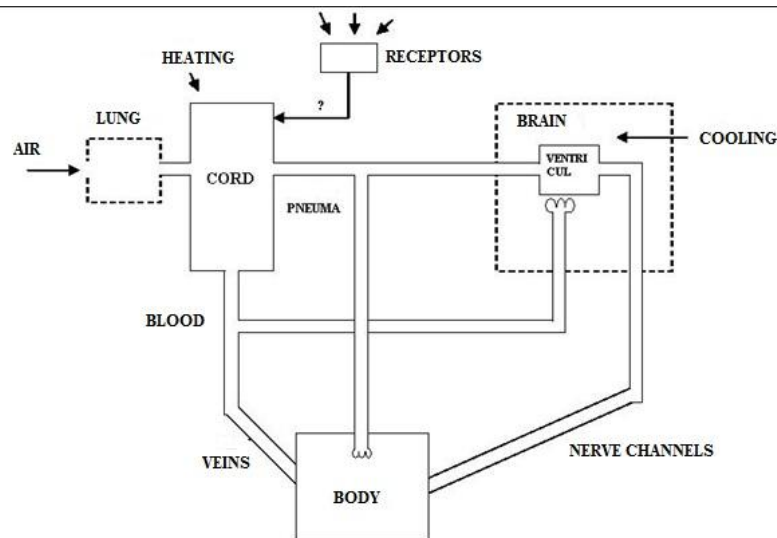
On the other hand, considering the fact that Plato distinguishes between the sensible world and the intelligible world- which is the foundation of his entire philosophical edifice and which could be translated in to a psychological language as a distinction between mental processes and volitional acts - we can say that he is close to cognitivism. In other words, for Plato the cognitive faculty of man is the only one able to know “the ideas”, because the intellect is located in the brain and therefore in the process of knowing we are dealing with a structure (in Platonic terms with the “participation”, the “reminiscence”, the problematization of mathematics’ objects) which is not affected by an appetent type of knowledge. In terms of the cognitive process, even if Plato will consider the “episteme” (and thus he differs from psychology), he will seek explicit how the human mind works and what are its mechanisms of operation, and for this we must keep in mind two things: the object to be susceptible of being known and the subject to be capable of knowing. In the terms of cognitivism, Plato is interested in studying intellectual operations and how they are encoded in the mind, but translating them into a specific pattern (based within then on-understandable) and not in a symbolic language.

Aristotle’s Psychology

It is known that unlike Plato, Aristotelian knowledge begins with an empirical kind of knowledge. In other words we cannot arrive at the formulation of general-abstract concepts or ideas unless we start and pass through the senses (cf. *Metaphysics*, 980 a, b). Thus, the first level of knowledge is achieved through the direct contact with the reality, and this is achieved by the organs of sense.

External phenomena act as external stimuli and cause specific changes which transmit messages to the heart, considered to be the head quarters of the sensations. The story behind this proposition finds its anchor in Aristotle’s studies of medicine, biology, physics and logic. Let us take them one by one.

The Aristotelian physiological mechanism, even if today its validity is inexistent, is the basis for formulating the mental functions. Aristotle is concerned with the description of the heart, of the brain (following animal dissections, see Plutarch, Diogenes) and is “the first to describe the nerves, which he called channels (*Poroi*), the name “nerve” (*neura*) being used instead for tendons and ligaments (Balaceanu-Stolnici, 1981, p. 27). The functions of the emotional level and of the cognitive level are explained as being due to a process of heating, respectively cooling of the cardiac cavities. He also tries to establish a functional and also causal relationship between the pneuma, heart, brain and body, which we present in Figure 2 (the scheme is adapted from Balaceanu-Stolnici, 1981, p. 28).



Scheme 2. Aristotle's model

The heart occupies a central position both by its rhythmic movement and by heat. It is noted the adding of the *pneuma* which is not identified with the soul as the vital principle of the body, but has a key role in structuring the mental functions. In this scheme, *pneuma* is heated from the heart and the brain has the role of cooling. Its distribution from the ventricle in to the body is

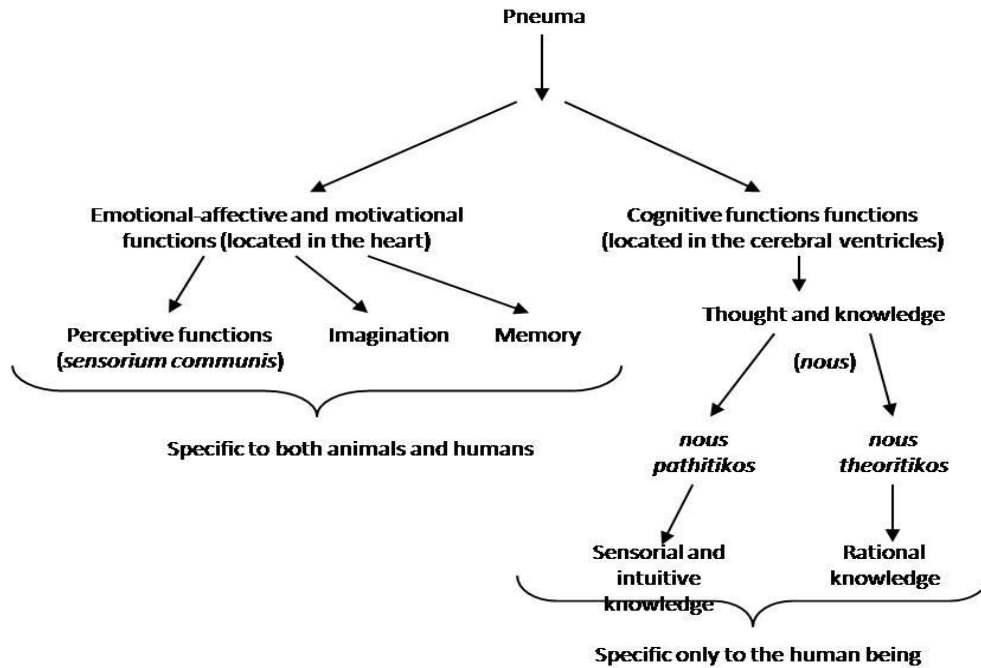
possible through a hollow pipe systemic consists of nerves, even if the way in which it is extracted from the air at the level of the heart remains quite confusing (Balaceanu-Stolnici, 1981, p. 27). This scheme is close, at least formally, to what the neurosciences schematize when comparing the brain with a computer made of organic compounds and not silicon chips. Aristotle also presents the body as a kind of computer whose operations are generated by the laws of the physics and of the chemistry. Mental functions are products of chemical reactions in the body (not brain) through the process of cooling and heating.

Mental functions

Basically, mental functions are achieved by “moving” the *pneuma* within the anatomical system shown in Scheme 2. They are located in the body (in the heart and in the brain’s ventricles) according to their specificity: a) affective and motivational functions, b) cognitive functions. Within the first type we have the perception, memory, imagination specific to both animal and human beings. The second type of functions is specific only to humans, within which we have thought and knowledge. We are dealing with two types of knowledge, one that would correspond to sensory knowledge, and one which would correspond to rational knowledge (Balaceanu-Stolnici, 1981, p. 29). Let’s see how things would look in given scheme (see Scheme 3).

“(…)Whether a tree, a frog, a color, spatial relationship, a moment of time or action like swimming or flying, the forms of these things -what-it-is-to-be –a frog or what-it-is-to-be is a relationship, (...) – are not different in any way as forms, whether they are received in the intellect or that they are in the things or in the entities of the world, whose forms they are” (Veatch, 2008, p. 87). Lloyd (1994, p. 257) launches the premise that the fact that Aristotle places a part of the mental functions in the heart, takes to fulfill his medical studies in embryology (the heart is the first part to develop in an embryo). These studies are conducted both in theory and in practice, but the problem, however, is the weight of one or the other. In this sense, we can speak of an Aristotelian methodology oscillating between the demonstration defined in *The Organon* and the empiricism practice of *Parva Naturalia* called dialectic (Lloyd, 1994, p. 254). The problem of determining the components of the eye or of the organ of senses is the example used by Lloyd. The author draws attention to the lack of a detailed description of the structure of the eye, which might suggest at first

sight, a generalization –Aristotle “is not concerned with details or even the nature of the changes in the eye, whether it is an affect separate from the cognitive act (as claimed by Sorabji), or the affect as an already known act (Burnyeat)” (Lloyd, 1994, pp. 255-256).



Scheme 3. Mental functions (Aristotle)

Is Aristotle a psychologist?

In what it concerns the Aristotelian theory of perception, the multitude of modern given to it may suggest its vulnerability. “Aristotle is clearly caught in the existing debates. The development of his anatomical data to reject the rival theories is often acute, but the examination of positive data which could support his ideas is superficial in that they cease to exist in the moment when some support is found” (Lloyd, 1994, p. 255).

We may add that by describing the heart and vascular system, Aristotle can be considered “the founder of studies on arteries and veins” (Balaceanu-

Stolnici, 1981, p. 27), but the fact that he considered the brain lower than the heart, denying the possibility of its vascularity, can be considered a short coming.

Aristotelian psychology vs. Platonic psychology

“When Plato talks about the diversity of people's mental constitutions, he might be announcing some aspects of modern psychiatry, but certainly the characterology, the differential psychology, the psychologies of personality” (Brès, 2000, p. 338). Plato's influence on Aristotle is noticeable through the existence of a central organ of perception and its location in the heart and not in brain. “On one hand, Plato insists in *Theaitetos* that the act of perception is not done through the senses but by the soul through the senses” (Lloyd, 1994, p. 256). The disagreement between the two is highlighted by locating the center of the sensations. Both agree that sensation is common to animals and the faculty of reasoning is unique to human beings. But for Aristotle perception is the faculty which separates the animal kingdom from plants, and this is not the defining human faculty. In terms of brain functions, they are to some extent subsidiaries of those of the heart (Lloyd, 1994, p. 257). However, for Plato the central place is occupied by the intelligible that can be known by the intellect (located in the brain), while for Aristotle the entire body is the main mediator of knowledge in which the main organs have specific functions precisely laid out. The first of these two builds schemes which reveal the “functioning” of the intellectual/rational knowledge, the second one tries to understand the links/relationships of the mental with the sensible and of these with themselves and with other things.

Conclusion

If for a while classical psychology followed a traditional scheme: reason, sensibility and will, once with the appearance of cognitivist theories this scheme was suspended. Cognitivism is considering emphasizing the mental structures as informational paths and proceeds to their symbolic schematization may be without giving special attention to their support. By this, I would say that cognitivism is Platonic since it builds schemes and moves within them. In modern terms, he is concerned with the software.

On the other hand there are the neurological sciences which are concerned with biology, chemistry and the physics of the brain's processes and that they are interested in how information is transmitted in the biological structures of the brain. In modern terms, one can say that hardware is their concern. They are added everything related to concerns about the "embodied mind" which refers to how the whole human body dimension (which is more than perception in its classic meaning) contributes to knowledge. And by this, I would say that they are Aristotelian. In particular, it is about the feed-back between mental structures and the perceptual dimension of the human being. The last level would be the contribution of phenomenology (in a broad sense) and of the philosophy of mind (in a narrow sense) which particularly refers to self-reflection and to the problems of the world as and originating fund of any specific representational elaboration. Neurocognitivism would be the meeting between neurological and cognitive disciplines by tracking how a formal type of software can be detected in the brain's chemical and biological structures, and conversely the way in which a certain kind of relationship/feedback can be formally modeled.

If by the mid '90s and early 2000s, emphasis was placed on the analogy between brain and computer, between the mental processes and computational processes (can be the brain thought of as a computer?), after 2000 the limits of the model were clear, because man is not a computer. Through the advance of the neurological sciences and through the return of a problem-in fact quite philosophical-of the human, the complexity of human beings was reconsidered. Basically, once aware of the limitations of the applicability of neurosciences, one can observe are consideration of the human being, a self-reversal of the questions raised by philosophy. And in this reversal of the questions of philosophy, psychology (regardless of its sub domains) meets with Plato and Aristotle. Their common interest is – in the end – the interrogation of the human mind, its operating mechanisms, and, not least, of the relationship that reason (in philosophy) or the brain (in psychology) develops with both the whole (physicality and intelligence), and with the other things.

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