

Socrates, logician ?

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Résumé

Quelle est la place de la logique dans la méthode socratique ? Peut-on voir en la personne de Socrate le père de la logique, le premier logicien, non seulement précurseur de la logique-dialectique des stoïciens, et de la logique-syllogistique d'Aristote, mais surtout de leur fusion dans la forme précise qu'allait prendre la logique d'Avicenne ? C'est cette hypothèse de travail que je voudrais défendre et tester.

ملخص

ما هي منزلة المنطق في المنهج السقراطي؟ هل يمكن لنا أن نرى في شخصية سقراط أب المنطق و أول المناطقة، ليس فحسب من حيث هو مصدر المنطق الجدلي الخاص بالرواقيين أو من حيث هو مصدر المنطق القياسي الخاص بأرسطو، و لكن أيضا من حيث هو مصدر انصهار هذين المنطقين في الشكل الصوري الذي سيأخذه فيما بعد منطق ابن سينا؟ سأحاول في هذه الورقة الدفاع عن معقولة مثل هذه الفرضية و امتحان مدى صحتها.

Abstract

What is the role of logic in the Socratic method ? Can we consider Socrates, the father of logic and the first logician, to be not only the forerunner of the dialectical logic of the Stoics and the syllogistic logic of Aristotle, but also the person who fused the two types of logic into a precise form that would constitute the basis of Avicenna's logic? This is the hypothesis which I will defend and test.

This paper seeks to examine the dialogical dimension of the Socratic method and the parts which the “dialogical” or dialectical games play in the birth of logic.

I start by quoting from Bergson who, *in the Two Sources of Morality and Religion*, wrote:

"Socrates highlights the importance of reasonable activity, especially the logical function of the mind. The irony that surrounded him is intended to disregard the opinions which do not stand the test of reflection and put them to shame, so to speak, by putting them

at odds with themselves. Dialogue -- as he understood -- gave birth to the Platonic dialectic and then to the essentially rational philosophical method that we still practice. The purpose of dialogue is to formulate concepts that we use in definitions. These concepts turn into the Platonic Ideas; and the theory of ideas, in turn, serves as a model for the structures -- also rational in essence -- of traditional Metaphysics... Reason has never been placed higher."

Bergson contends that this description is what strikes us first. If we look at things more closely, we will realize that "its mission is religious and mystical in the sense that we understand these words today. Its teaching, if perfectly rational, is dependent on something that seems beyond pure reason."

According to Bergson, we are faced with two facets of Socrates. Who is Socrates in relation to human reason, intuition and inspiration? With whom should we associate Socrates, and to put it in Bergson's words "with his homeland Greece or with the Orient which he liked."?

Far from confining Socrates to one facet, my point is to link the two sides. Combining intuition and inspiration with logical rationality is a critical issue today. This reading will allow us to clearly articulate our understanding of the Arab logic experience between the 9th and 13th Century. By combining intuition and reason, Arab logicians were known for their creative and inventive approach to all Greek logical heritage. Talking about Arab logicians is beyond the scope of this paper.

Returning to our initial question, we can ask if there are any common points between logical reason and the Socratic philosophical method. Can we see the Stoics' dialectical logic and the syllogistic logic in embryonic form in this method?

First, we have to identify the specific features of logical thinking or logical activity: What is logic?

Second, we have to identify the specific features of the Socratic philosophical method: What are the components of the Socratic method as a philosophical method based on "dialogic"?

To synthesize, we can answer the question that is the title of this paper: Socrates, logician?

(1) What is logic?

(2) What is a Socratic method?

(3) Conclusion: Socrates, logician?

(1) It should be noted first that the word "logic" was used from the late Middle Ages by followers of Aristotle. It is rooted in the word "logos". The Stoics' logic was known as dialectic rather than logic. We describe the formal system of Aristotle as valid analytical reasoning, and we view it as an organon of knowledge rather than a true science. This

debate was settled by Avicenna in the 11th Century when he called logic a "techno-science"; the same term is used by Gilbert Hottois today.

The purpose of the logical approach is the validity of the research. Validity is the property of a set of sentences. The logician does not seek to classify empirically or historically the valid reasoning of those which are not valid. His task is to establish in an a priori way the rules that allow such a formal classification. His method is essentially based on techniques that organize as objectively and scientifically as possible the relationship between reason and reality-- considering the truth of the thought-speech as it relates to states of affairs and relationships-- in order to expose the structure of the human mind taken from a universal and not psychological perspective.

So, is Socrates a logician according to this definition?

Let us go to the specific features of Socrates' philosophical method. We pose the following question: Does this method precede the moral philosophy of Socrates?

The Socratic method invented definition. In the context of traditional logic, especially its interpretation by Arab philosophers, definition, that is to say the determination of the concept, is the cornerstone of logic: it is about the premises of science.

All Socrates' thought recast philosophy based on the general -the concept - as an object of science. And yet, its invention was not a theoretical invention. Socrates seeks the general, and the concept and universal definitions by induction, the practice of discussion and by reference solely to the laws of logic. He integrates the research, not into a systematic logical theory, but into a teaching method that implements standards of behavior which are both moral and linguistic.

Although we cannot trust Aristotle too much when he comments on the ideas of other philosophers, we can quote a short passage from his *Metaphysics* Book M 4, 1078b), where Aristotle says:

"Socrates treats ethical virtues and, in this respect, he seeks to interpret or define them universally [...]; he seeks what the things are. [...] What is attributed to Socrates is both inductive reasoning and universal definitions which are, both of them, at the beginning of science. But for Socrates, universals and definitions / interpretations are not separate entities; they are the Platonic ones which separate them and give them the name of ideas."

Even if Socrates' goal was looking for the *ti esti*, the "what it is?", whose answer led him to reach the essence of things (separated or not), it is very difficult to dissociate this task from its ethical project. There is in the Socratic method a strong correlation between the scientific aspect and the moral aspect. The logic, if tolerated, would not be dissociated from the pursuit of happiness and virtue. Socrates' concerns are not speculative; and his logic, if it exists, would be dialogical on principle.

One of Socrates' inventions which follows directly from this first observation is dialogue. Correct reasoning can arise only within an intersubjective space of communication

between several speakers. It is dialogue that defeats ignorance and that allows people to become aware of themselves as human beings, and to observe their strengths and intelligences. The logic sought by Socrates-- if it exists-- must necessarily merge with a dialogical and dialectical approach which is not only a means of science that applies externally to the objects of knowledge, but also an integral part of wisdom. The concept of dialogue has thus served the enrichment of logic, its openness and its anchoring in an epistemological base that does not exclude natural sciences.

We can certainly question the relationship between Socratic dialogue and Platonic dialectic. Dialogue remains the preferred mode of discourse for Socrates. This method involves a commitment from people in a concrete context. Socrates' mission was to teach and practice wisdom in public places; to maintain lively discussions with people who believe in knowledge, but who eventually confess their ignorance. Conversely, dialectic is a kind of hypostatized and abstract description of this Socratic commitment to dialogue. Dialectic is defined by Plato in the seventh Book of the Republic as pure knowledge and the true art of philosophers. It does not refer to the opinions of people in specific situations and it only leads to a knowledge of pure forms.

There are reasons to separate the dialogical method of Socrates (which is often aporetic and does not involve a great deal of positive knowledge) from the dialectic of Plato, which is a field of pure intelligibility. But the grasp of the intelligible is only possible for the logos through the ability to engage in dialogue with others. It is the etymological meaning of the word *dialegetai* -- enter into or engage in dialogue.

We cannot speak of dialectic and dialogue without reference to maieutics; that is to say, the art of giving birth to ideas. The essence of the Socratic method is to have the speakers face their own contradictions.

Irony used as a decisive stratagem will be the engine of this dialectical method. It consists in the fact of thinking the opposite of what we say. According to Socrates, irony, in the form of awareness of its own ignorance vis-à-vis pseudo-knowledge and opinion (*doxa*), should not be confused with any form of skepticism: philosophy wants to be a paradox first and foremost.

Placed in a more dialectical register, dialogic is communicative rather than formal and axiomatic. The notions of contradiction, clash and paradox are the beating heart of the logical apparatus. In the 5th century, scholars often used the first two notions to develop what is called the logical square of oppositions; a way of making the logical relationships between the four classic propositions of the Aristotelian system more explicit. Modern scholars, especially since Tarski and Russell, have derived the logical paradoxes from the resources of modern logics.

Conclusion:

Like the dialectic of the Theory of Ideas, which is an interpretation of Socrates' dialogical method, Aristotle's Analytics is based on the same principle. Arab logicians were aware

of the need to make another reading of the dialogical dimension of Socrates' thought. In this reading, dialectic and logic are no longer incompatible. They had the privilege to try to theorize about the union between dialectic and logic. According to Bergson, this explains the fact that they were ingeniously inspired not only by Megaro-Stoics' logic-dialectic and Peripateticians' syllogistic logic, but also by intuition peculiar to the Orient. Their purpose was to invent a new rational and intuitive logic that takes advantage of the syntactic, semantic and the particularly pragmatic specificity of Arabic; that is, a logic based on illumination.

To conclude, we can say that Socrates was certainly a logician, but one who ignored theory. Theory came later and we find it in the form that logic would take in the 11th century in the works and thought of Avicenna. It is this form that inspired Frege in the late 19th century to found modern logic. This continuity between these two logicians is central to the works of Wilfred Hodges, a leading specialist in the field.