

Gonzalo Serrano: *La querrela en torno al silogismo 1605-1704. Conocimiento versus forma lógica.* Bogota: Universidad Nacional de Colombia, 2006, 271 pp.

Among the many normal themes that have pressed themselves onto the history of philosophy, the rejection of the syllogism is one of most commonly accepted and rarely questioned; it is assumed that the modern thinkers of the XVIIth century altogether rejected this manner of reasoning. We have been told they turned their backs on the syllogism because it was a fairly poor and limited tool for disputation, far from being capable of generating new knowledge; or because the moderns wanted to cast the obsolete, deadlocked tradition that had congealed in the logic of Aristotle –the emblem of which was the syllogism– aside; or just because, in rejecting scholastics, they were also in the obligation to reject the syllogism. The case is that, through not accepting the syllogism, modern philosophers were also discarding a complete conception of the world, of man and of the sort of (demonstrative) knowledge he could obtain. Thus, consenting to the syllogism –or not doing so– stirred up certain consequences for the thinkers involved that were not always graciously breached, and which led to other problems in turn.

Tracing the different epistemological and methodological approaches that are immerse in the anti-syllogistic stance burgeoning modern philosophy will be one of the main objectives that the author of this book will strive to fulfill. In Serrano's words: "The quarrel on the syllogism overrides the boundaries of logic and develops into a philosophical dispute. Because of this, the exposition of each of the philosophers in question cannot be restricted to their position on syllogistics: it will have also have to framed inside the philosophical program corresponding to each" (p. 18). What is new about Serrano's interpretation is that he bases his thesis mainly in showing that the rejection of the syllogism entails a more generalized rejection towards any type of logical formalization or axiomatic; something by far exceeding a mere antipathy for scholastics. For this reason, a distinction need be made between those thinkers who truly integrated a separation of the exigencies of formalization to their philosophical proposals, from those who, while affirming that the syllogism was not the best of logical tools, did incorporate some formal process into their philosophies (the most salient of these last being Spinoza).

Considering the philosophical context of each thinker involved, it will be easy for the author to identify the most important problems at hand in this dispute, to knowledge: i) the rejection of the syllogism implies casting aside a full gamut of traditional elements that not all philosophers are willing to shun; a tradition which Serrano terms as *ontosyllogistic* insofar as it entails “the crystallization of the differences between modern and premodern philosophy” (p. 28); ii) that even as the majority of the thinkers in question share that common rejection for syllogistics, major philosophers such as Leibniz not only refused to abandon it, but actually justified its use from a different perspective and returned the criticism to their colleagues, confronting them with their own limitations. It could thus aptly be said that a genuine dispute arose between those who rejected the use of the syllogism and those who defended it; iii) going yet further from the battle for the establishment of whether or not the syllogism was an adequate logical tool, the quarrel between its detractors and Leibniz allows for broadening the palette of nearly agonistic philosophical elements partaking in this rapport: intuition and logical form, contemplative and operative knowledge, a rational or voluntaristic God, as well as other matters clearly revealing the complexity that the rejection of the syllogism involved.

The book is divided into two parts, the first of which tackles criticism to the syllogism on three separate fronts: operative knowledge (Francis Bacon), intuitive knowledge (Rene Descartes) and the natural course of thought (John Locke) are featured as contrasting developments against the artificial logic represented by the syllogism. The second part deals with Leibniz, notably with his vindication of the syllogistic form as quite the nifty tool for the production of knowledge. In what is left of this review, I shall stop mainly on the author’s expositions on Descartes, Bacon and Leibniz.

What matters most to the first part of the book is showing how thinkers of the stature of Bacon and Descartes came to develop a different “logic” addressed to the discovery of new principles of being, the foundation of which could be found in an intuitive act, in experience, or in a revamped inductive approach. This last point, precisely, is what Bacon tries to demonstrate throughout his philosophical proposal when installing a new method of investigation that went hand in hand with a form of induction the object of which lies beyond the mere enumeration of particular cases; so as to pursue a universal and focus on discovering the operative principles that let us know just how things are produced (that is, their true *forms*) from the starting point of the particular, through integrating experimentation to the inductive process. The first step to this approach consists in

finding new, particular cases that enable the discovery of other such singular cases, with the purpose unraveling an axiom to encompass them all in an initial generalization. Once this is achieved, the second step involves shelving cases through comparison and exclusion, to find an axiom that is yet more general than the one before it. This is achieved through new experiments and experiences. The third –and not necessarily the last–step consists in founding common features to help us obtain an operative definition of the phenomenon at hand (*cf.* p. 58). This definition will not be of the usual kind, because it is not specifying how words should be used to understand a phenomenon, but how its *form* and *operation* come to be defined. At first, it tells us how the thing is produced, and under what conditions; then, it formulates the operational conditions that need be followed in order to produce the phenomenon. To some extent, both possible aspects of Baconian definition complement themselves and are presented as a new way of understanding things from the vantage of a newfound knowledge striving to integrate the speculative to the practical.

However, and despite experimentation being that which would allow Bacon to ensure the deductive process –becoming his distinctive feature– as opposed to the traditional method of seeking out syllogisms to explain physical matters; in Serrano’s interpretation two things remain unclear: i) the notion of experiment that Bacon has in mind, and ii) the role experimental practice occupies within the new Baconian logic. These are two important matters, because the firmness and veracity of the definitions attained will depend on them. It is not sufficient to suppose that experimental results exist without first questioning just how they are obtained: the experimental practice itself has an intimate rationality which is, oddly enough, both practical and operative; in effect, something quite similar to what was proposed by the British philosopher.

In the case of Descartes, the chosen path is that of intuition. Serrano shows us that the true germ underlying Cartesian philosophy is found in the rejection of any form of logical formalization, to the point that “the Cartesian rejection of the syllogism should be interpreted not as being in the line of the fashionable anti-Aristotelianism of the XVIIth century, but rather as a flagrant, forward confrontation with the uses and abuses of formal logic in general” (p. 119). The development of this thesis will allow the author to consolidate a heterodox interpretation of one of the most studied themes in Cartesian philosophy: the *cogito*, which is seen as the fruit of an intuitive process meant to stir up inconsistencies apropos the systematic doubt present in the first of Descartes’ *Meditations*. This process is itself

conceived as the capacity to “suspend judgment” as regards the validity or falsehood of an enunciation until the Cartesian mind generates contradictory thoughts so as to, slowly but surely, test the truth of the enunciation, which is finally achieved through an unsustainable inconsistency (that of thinking and not existing). Once this is done, the process must secure the evidence of the principle on the grounds of its content, which must resist both contradiction and doubt (*cf.* pp. 139-145). It is clear that, in this interpretation, the *cogito* is not the result of any sort of formal process –call it syllogism, *reductio ad absurdum* or stoic inference–, but is based exclusively on proposing a rational model of investigation that need not be formalizable, but which must be exclusively grounded in rational intuition aimed towards attaining certainties.

In view of this situation –in which formal logic is begrudged for seeming superficial, incapable of furthering knowledge and remaining only in the realm of discussion– the author shows us that a thinker such as Leibniz responds to this almost generalized rejection of modern philosophers’ by pointing out that internal evidence (Descartes) or sense perceptions (Locke, and to some extent, Bacon) are simply not enough to ensure the truth of the connections between contents and knowledge. Only logical form can guarantee the conditions of necessity and universality required to characterize knowledge as true (*cf.* p. 203). The logical form that Leibniz intends to defend, however –claims Serrano– is not limited to that employed by the connection of the syllogism’s premises,; he goes further, when he tries “to penetrate the form that animates each individual thing insofar as it can be thought of in a concept which contains, unto itself, the concept for each of its elements and properties” (p. 206).

What interests Leibniz –who was possibly motivated by metaphysics of unity– is the discovery of the logic contained within each individual subject. In this sense, he agrees with Locke and Bacon in that the parting point for any investigation is the particular; but he shifts the traditional focus on formal logic, by passing from species to genres (the reign of the syllogism) and into the realm of particular substance, by investigating how the predicates are already contained in the concept of subject (intensional perspective). It is no longer of interest to determine the ideas that refer to individuals and their classification as universals (extensional perspective): what matters is the very content of ideas. Hence, a good syllogism will be that which operates within the realm of an intensional discourse, bound only by the principle of contradiction –since it would be absurd for the concept of subject to include contradictory predicates–. The syllogism, thus inter-

preted, evolves into a logical tool concerned far less with extant things than possible ones: the possible predicates that might be contained in the individual, and which differentiate an individual from another, determining it – not by classes or by genres– but by the specific content that allows for it to be conceived as such.

In brief, the novelty to Serrano's book is that it makes a survey of the quarrel on the syllogism that is not merely restricted to the logical and formal side of the discussion, but which also incorporates the problems that the formality of logic imposed on the philosophy of the times, showing the different proposals that sundry philosophers were compelled to develop upon deciding that the syllogism was obsolete. What was at stake was nothing less than the founding of a new logic, something which –it was soon made clear– would not be all that easy to find. As Leibniz says, the formal aspect is something that cannot be dismissed if what one wants is to ensure logical cogency and the truth of the knowledge thence obtained.

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(Translated from Spanish by Monica Belevan)