

**Ignacio Silva (ed.).** *Latin American Perspectives on Science and Religion.* Pickering & Chatto 2014. 208 pp. \$150.00 USD (Hardcover ISBN 9781848934993).

The relationship between science and faith represents a very interesting topic involving academic debates and common knowledge too. The goal of this volume is to highlight the opinions of some Latin American scholars on the science-religion interaction. Although some of those contributors deal with Latin American circumstances, this collection of essays does not consider Latin America as a case study. In the first pages Ignacio Silva, Research Fellow at Harris Manchester College, introduces the general contents and division of the book. Given the Latin American milieu, the Catholic perspective prevails within the variety of opinions expressed in this publication. In any case, the contributors manage to present a plethora of subjects and views that render this book suitable for students interested in achieving a deeper knowledge on that matter.

The first part of this publication is devoted to the methodological aspects of the question. As a historian of philosophy and scientific thought, my attention is driven mostly to the essay by Oscar Beltràn, professor of Logic in the Pontificia Universidad Católica Argentina. In his paper Beltràn deals with the philosophy of Mariano Artigas (1938-2006), whose contribution to this area of investigation deserves careful consideration. Artigas can be deemed to be a representative of Christian realism, a broad outlook that stresses the role played by the Christian doctrine for the birth of exact science and a metaphysical worldview including ordinary knowledge and scientific enterprise. In his works Artigas highlights three main difficulties within the science-faith dialogue: the specialization of natural science, an excessive reductionism bringing about the assimilation of specific scientific disciplines into others, and the trend of framing scientific theories into unsuitable philosophical milieus. In Artigas' mind, the only possible solution consists in adopting a mediating philosophical wisdom able to bridge the gap between science and faith. The Spanish scholar bases his theory on the idea that the historical development of science occurred within the tradition of metaphysical realism, which is still a valid foundation for scientific discourse in the contemporary age. The realistic approach to knowledge just implies the specific character of philosophy aiming at achieving the essential principles of everything. It is the key to direct scientific work and preserve the autonomy of particular disciplines. In other words, scientific research needs some philosophical presuppositions forming part of the regulative character of metaphysics, and without them science would lose all its inner meaning. More specifically, ontological presuppositions guarantee the existence of a natural order, while epistemological presuppositions refer to the possibility of knowing nature. Moreover, another novelty of Artigas' position lies in the unavoidable presence of ethical presuppositions, strictly connected with the presence of values. Ethical presuppositions do not undermine the autonomy of science; the search for truth has an ethical and methodological dimension and it can be deemed to be a clear instance of Artigas' view. Furthermore, it is easy to recognize a theological origin of such presuppositions, which imply the consideration of nature as a whole. In my mind, that is the core and the real merit of Artigas' thought, namely the establishment of philosophical presuppositions, linked to Christian theology, able to secure the coherence of scientific discourse and the independence of science as the quantitative study of nature. So, Artigas joins the group of contemporary researchers who find in Christian Theology the reasons for the origin of science in the Christian context.

As a result of the importance of Christian ontology for the origin of science and the science-faith dialogue, it is difficult to accept the position supported by Liberation Theologians. This topic is discussed in the contribution by Juan Alajandro Navarrete Cano, Lecturer in Theology at the

Universidad Católica del Norte, Chile. Science cannot be defined as the outcome of the nature-production dialectic and the above mentioned ontological approach rejects any kind of concordism. Moreover, Liberation Theologians too often deal with epistemological matters in connection with socio-political questions and consider science as oppressive. That is the case with Ivone Gebara, who argues that the science-theology dialogue is located in the European context for the most part, far from major social movements and without paying attention to ‘the contemporary reasons of alienation’ (35). In sum, Cano’s opinion on the reductive view of Liberation Theologians about philosophy can be defended. The lack of a clear distinction between the epistemological and socio-political levels, indeed, represents the main hindrance for developing a coherent science-theology relationship.

The interaction between science and faith involves the historical dimension of their dialogue, which is treated in the second part of the book. Miguel de Asúa, Professor of History of Science and Medicine at Universidad Nacional de San Martín (Argentina), highlights the scientific activity in Latin American Jesuit reductions during the modern age. The original goal of those communities consisted in segregating the natives from the exploitation by Spanish colonial society. Inculturation was a distinctive feature of the Jesuit missions too, and scientific education was subordinated to their missionary action. Astronomy could be seen as the quintessential Jesuit discipline; in this sense, it should be enough to recall the issue of the Gregorian Calendar by the mathematicians of the Roman College in 1582. In Latin America Jesuits formed a network of astronomical observation and kept a correspondence with the Roman College and other European scientists. The fabrication of exact astronomical instruments and the observation of celestial phenomena such as eclipses or the phases of Jupiter’s satellites testify to the high level of their investigation. Another clear instance of the relevance of their research consists in the fact that many data collected by Bonaventura Suarez (1679-1750), a Jesuit missionary working in the jungles of Paraguay, were published in the *Philosophical Transactions of the Royal Society*. In addition to astronomy, medicine and natural history were cultivated with great attention in Jesuit missions; in this case, they also succeeded in absorbing some elements of native cultures into European scientific learning. Their scientific research was adapted to an apostolic aim and that is the reason one can find in their activity a confirmation of the validity of Artigas’ presuppositions: in other words, the belief in a natural world as a result of the divine creation and the search for truth as an ethical value represent the core of the sapiential character of knowledge and the way in which Jesuits cultivated science as a mission for the benefit of humanity.

Part Three concerns contemporary matters. Claudia E. Vanney, Director of the Institute of Philosophy at Universidad Austral, deals with the most philosophical subject of this section. Modern determinism is strictly connected with the achievements of science. However, in the twentieth century, chaos theory and quantum mechanics introduced a kind of indeterministic paradigm bringing about a crisis in certain received ideas, such as the image of a clockwork universe. In her contribution Vanney examines the thought of Leonardo Polo (1926-2013), a philosopher whose proposals deserve further interpretation. Polo stresses the limits of objectification, as concepts such as ‘uniqueness’ or ‘totality’ belong only to the mental dimension and their application to the extra-mental reality would be erroneous. What is thought is non-real, as objectification allows only a limited access to reality, whose order is extra-mental rather than intentional. The multiform character of objectification implies different ways of approaching reality and that aspectual plurality does not achieve a real knowledge. Science, philosophy and natural theology adopt different methods and gain different results, as they deal with the same question from their own specific perspectives. This distinction avoids an erroneous transposition of the different levels and an ingenuous reductionism leading to consider any of those

levels as unique. Polo's method, called the 'abandonment of the mental limit', entails the renunciation of the objective uniqueness and reductionism. Offering readers an opinion about Polo's philosophy is not an easy task. The problematic structure of reality is well known to philosophers and scientists and that condition leads many scholars to overcome the reductive determinism-indeterminism dialectic in order to find other ways of connecting mental and extra-mental realities. Even in this case, Artigas' point of view presents a coherent way out of this intriguing problem. In other words, it is necessary to establish an organic body of presuppositions, founded upon basic certainties, to be considered qualitatively superior to science. That superiority lies in the universality of those presuppositions, upon which the peculiarity of each exact scientific discipline is founded. We must not forget that the primacy of ontological presuppositions guarantees the reliability of science and its perfectibility too. Their adoption leads to a correct dialogue between theology and science, without the threat of a reciprocal interference and naïve concordism.

The science-faith interaction consists of a wide range of topics. This publication succeeds in synthesizing the main themes of the debate in an area where many cultural traditions meet.

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