

Zubiri and the Challenge of Science in the 21st Century

Editorial

In the last issue of *The Xavier Zubiri Review*, we listed ten challenges in Zubirian philosophy for the new century. The fifth challenge was a *Comprehensive theory of science and integration of Zubiri's thought with science*. While that goal has not yet been achieved, the essays collected in this volume, produced in cooperation with the Fundación Xavier Zubiri in Madrid and the Metanexus Institute in Philadelphia, indicate the lines along which such integration may proceed.

This issue opens with a brief essay by the master himself, a speech given upon his acceptance of the prestigious Santiago Ramón y Cajal prize in 1982. There Zubiri reiterates his notion of the openness of reality, and its impact on the relationship between philosophy and science. Specifically, the openness of reality means that no theory can ever exhaust it, and hence science cannot tell us everything about reality (i.e., there will never be a “theory of everything”).

Next is an essay by Professor Diego Gracia, Director of the Fundación Xavier Zubiri in Madrid. Professor Gracia discusses the evolution of Zubiri's thought on the relation of science and philosophy, and how Zubiri's final view, that both science and philosophy are about reality, flows from his mature work of dividing human knowing into the three stages of primordial apprehension, logos, and reason. Science arise only in the last stage; but all rational knowledge utilizes the first two as well. Antonio Ferraz also discusses how Zubiri's new philosophy of sentient intellection can be applied to the problem of the relationship between philosophy and science. Javier Monserrat treats this subject as well, from the perspective of the social or “human” sciences such as neurology, anthropology, and psychology. He notes that, by exploring the relationship between these sciences and Zubiri's philosophy, it is possible to bring out the fecundity that Zubiri's ideas can have in the scientific realm.

Vincente Montes discusses Zubiri's analysis of the current intellectual situation, and especially its relation to the view of the ancient Greeks. Zubiri has pointed out that scientific knowledge does not coincide with what the Greeks termed *episteme*; but many today believe that it does, leading to a crisis. Montes points out that Zubiri's philosophy can be summarized as an effort to recover the value of the intelligence by confronting it with the truest challenges posed by science itself. This general subject of the crisis of modern life is also treated by Jesús Conill. He explains that this crisis has paradoxically come about despite the enormous development of science and technology. Zubiri has shown how study of the deepest strata of reason reveals a new form of understanding *reality* and of being intellectually in it. This horizon permits us to combine the contributions of the growing scientific knowledge (without falling into scientism) and of the risky power of technology (without falling in technocratism) with the birth of a new metaphysics, capable of confronting the vital abyss to which the nihilistic experience of the so-called “postmodern” times exposes us.

Thomas Fowler discusses how Zubiri's notion of reality by postulation can be applied to science and scientific theories, thus resolving some difficult problems with respect to scientific method, paradigm shifts in science, science fiction, and expression of scientific laws. He notes that reality is postulated in two senses: direct and emergent. The emergent sense is associated with the notion of probability and stochastic processes, now an integral part of many areas of science. We observed that the emergent reality may be related to the reality field, instead of individual objects, since probability refers to aggregates of things and not individuals.

Antonio González investigates a lesser-known argument of Zubiri with respect to the problem of God, a version of the "cosmological argument" based on modern scientific grounds, specifically, the "Big Bang" theory. Though Zubiri's better-known "way of relegation" has advantages compared to the "cosmic way", this latter can still be considered critically on its own merits.

The issue closes with an essay by Laín Entralgo in which he discusses Zubiri's legacy to the 21st century in three areas: philosophy, science, and Christianity. With respect to science, he notes how Zubiri makes scientific knowledge a point of departure for (philosophical) knowledge of reality, rather than a replacement for it; and also the need to resolve in a fully integrated manner the problem that scientific knowledge poses for philosophy.

The Xavier Zubiri Foundation of North America hopes that this volume will be a stimulus to Zubiri scholars everywhere to redouble their efforts with respect to Zubiri, philosophy, and science. Contributions on that subject are of course welcome for the next issue of the *Review*.

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