*Creation and Evolution*, by Lenn E. Goodman (London & New York: Routledge, 2010), 222 pp., ISBN 978-0-415-91381-2, £24.99 (pb)

In the heated discussions about the relationship between religion and science, Stephen Jay Gould's (d. 2002) offering, known as NOMA "Non-Overlapping Magisteria," has been met with a myriad of reactions. His formula had suggested that, as completely two distinct realms, religion and science address two complementary aspects of human knowledge, the first about the ultimate meaning of universe and moral values and the other about the empirical outcomes. Whoever wants to mix these two would be mixing, in Gould's own words. "apples and oranges." Leaving aside his emotional description of the subject in Rocks of Ages, along with occasional statements such as "with all my heart," "brings tears to my eyes," etc., Gould's main thesis hardly conforms with the historical development of religious disciplines. The history of religious ideas is a history of rationality; one need not be a specialist in a religious discipline to see that every religious standpoint applies certain mechanisms to justify its fundamental principles on a rational basis. Rationality brings about the doctrine of the unity of truth, whether it comes from divine intelligence or the human mind, a notion that underpins the overall metaphysical and epistemological structures in the Medieval Period. As Quentin Skinner elaborates, rationality is the crucial criteria for us to recognize the range of explanatory instruments in a belief system. To wit, religion without rationality is but a massive vacuum no one can make sense of. Once this fact is observed, it is principally impossible to strip religious discourse of its ontological indications, restricting it only to morality. Thus, Gould's stance is, in the first place, prone to systematical approaches which view religion in the given context. And in fact, it has been seen as such. The subject of this review can be seen as a telling contribution in this regard.

In order for us to give such contextual meaning to this book, it seems essential to look at the overall grounds which each chapter dwells upon. Simply entitled "Backgrounds," the first chapter acknowledges a vast array of ideas and stances, a bulk of opinions that is collected to help us map the terrain, i.e., the terrain of the relationship between religion and science with special reference to the

thorny subject of "creationism and evolutionism." We can see that many aspects are taken into consideration by the author, from ancient philosophical questions such as the eternity of the world, to modern peculiarities such as American bumper stickers that say "I'm a fool of Christ, whose fool are you?" (p. 29). The second chapter "Leaving Eden" offers a partial commentary on the first book of the Holy Bible to explore what Genesis says about creation, skillfully enriching the content with explanations taken from the rabbinical literature. The third chapter is titled "The Case for Evolution," and it accordingly outlines the major figures and scientific theories regarding biological evolution up to the present time. It also points to the changes of thought Darwin went through as he tried to come up with a stringent theory of his own. All of these, as is in the rest of the book, are written in the unique style of the author. The fourth chapter "Three Lines of Critique" exhibits a more systematical character because it takes into consideration three fundamental questions or "worries" that are lined up against the validity of the theory of evolution. The first is the allegation that evolution is "atheistic, cold, and materialistic," strictly removing the notion of teleology in universe. The second challenge comes from the famous philosopher Karl Popper: evolution is a near tautology, it ascribes the survival of adaptive forms to their fitness, which means but survival. The third is the well-known adversary of evolution, namely, Intelligent Design, which mainly supports the idea of "irreducibly complex" systems. The fifth and the last chapter goes under the title "That Has Its Seeds within It." In this chapter, the author more explicitly emphasizes his take on the issue, referring to terms such as potency, capacity, and latency. According to the author's approach, these terms represent a more coherent understanding of the Biblical texts, rather than any literal readings which attempt to find an alternative cosmology in God's words. The book is closed by an afterword that touches upon more common subjects that have been recently discussed, which chiefly criticize Gould's approach in a prudent manner.

A student of philosophy expects to find more philosophical background in the book because the author has a deserved reputation for his scholarship of Islamic thought, with publications such as *Avicenna* (2006) and *Islamic Humanism* (2008). However, it is only on very rare occasions that we have the chance to see these references, which would contribute to contextualize contemporary discussions in the general history of ideas. As an example, the author successfully

points to medieval discussions on the eternity of the world, and in doing so, he reminds the readers of the standpoints of two important Muslim thinkers (p. 10), al-Kindī (d. after 252 A.H.) and al-Ghazālī (d. 1111 C.E.). Both defended the temporal creation of the world, refuting the views of the Aristotelian eternalists. Without a doubt, today's ongoing debate of Islamic evolutionist theories cannot be properly understood without taking into account the history of the interaction between religion and science in Islam, an issue which deserves much more scholarly attention than it has had thus far. In parallel, an elite society of philosophy in tenth-century Basra, the Sincere Brethren (Ikhwān al-ṣafā) are quoted twice (pp. 12, 76) in reference to their ideas on natural progress, which have been seen as earlier forms of the evolutionist views within Islamic thought. Thus, the strength of the book lies in its excavations of ancient philosophical perspectives, comparing them with those of modern scientists and writers. A good example is seen in the comparison between Darwin, Aristotle, and the Book of Genesis (p. 144). For the author, teleology, namely, the immanent purpose in nature, is the key word that offers a reasonable agreement between these so-called adversaries. Nevertheless, these excavations are scarce, and the reader is faced with numerous scientific positions of many personalities, which are apparently thought to work within the general theme. This character of the book might be a burden for those readers who want to completely engage in fine, page-turning reading.

Creation and Evolution is a modern doxography in the classical sense; that is, it encapsulates the viewpoints of the actors who play different roles in everlasting discussions on an important aspect of the relationship between religion and science. If we modernize the medieval "faith and reason" issue to the contemporary "science and religion" area of thought, the author can be described as an "Averroist," in the sense that his effort in the book can be broadly defined as "combining two different realms of truth." However, the author's own remark is modest: "I can't flatter myself that this book will convert extremists. But for those who seek a middle ground, it may prove helpful" (p. 1).

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