

GOD AND THE ORDER OF NATURE IN EARLY MODERN THOUGHT: TOPICS IN METAPHYSICS, EPISTEMOLOGY AND NATURAL SCIENCE

INTRODUCTION

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Since science played such a major role in the secularization process and the “disenchantment of the world,” it was largely inevitable that the relationship between religion (broadly speaking) and science was to be understood in terms of “warfare.” Everyone knew from the beginning, however, who the winner was and which was the “good” side. Under the paradigm of the Napoleon-Laplace exchange, science was seen as the liberator of man from his own “idols:” the handmaiden had become not only the mistress, but also the redeemer. Today, it’s easy to discern the various ideological commitments involved in this picture, from Enlightenment “progresism,” to 19th century positivism and 20th century Marxism. Recent historians have denounced this account as a myth and have largely surpassed it; although the popular image may still see the relationship science and religion as conflictual, in specialized literature the rejection of this kind of approach has become almost canonical. Especially for historians of the origins of modern science, it is no longer a challenge to fight against this myth; to the contrary, the trend now is to focus on the interconnectedness of the two domains and to explore how religion (again, understood in broad terms) in fact gave birth to or, at least, nurtured its once supposed enemy, science.

At least since Funkenstein’s classic study, historians of science and philosophy in the early modern era have tried to understand how someone could pursue science (as we would understand it) and theology as a single enterprise, both disciplines informing each other. Whoever studies authors from this period must leave his or her disciplinary categories “at home:” in this context, the contemporary notion of interdisciplinarity sounds like an empty word. The studies gathered in this volume take up the challenge and, using the most recent historiographical tools, try to get a grip on the major transformations that took place from late Renaissance to the beginning of the 18th century.

This issue of *Society and Politics* puts forward different methodologies and ways of working on problems that relate to such transformations. Some articles follow the methodological criteria imposed by disciplines like history of ideas or history of philosophy, and concentrate on finding conceptual changes that, locally or globally,

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affected our general understanding of nature, God, and man. Others concentrate on identifying conceptual changes specific to canonical figures of the seventeenth century, such as Leibniz and Descartes, using the apparatus of conceptual reconstruction. Yet, although they use different approaches and follow diverse methodological strategies, the articles in this issue fit into the larger story of how the modern scientific worldview was born.

Rather than a chronological or thematic ordering, the editors of this issue have attempted to organize the articles with respect to the methodologies used. Thus, the issue opens with David Beck's "Regional Natural History in England: Physico-Theology and the Exploration of Nature." This article is a historical investigation of a special category of writing, specific to late seventeenth century England: regional natural history. The identification of regional natural historians as a distinct group relies on their shared latitudinarian views about moral imperatives and the relevance of the argument from design; Beck takes the natural historians at their word, granting that they were sincerely motivated by piety in their endeavour. His paper brings interesting and less well-known figures such as John Norris or John Morton to the attention of scholars working on the physico-theological tradition of the early modern period.

Tobias Schöttler's paper takes on the problem of the status of mathematical proof in the debate known as the *Quaestio de certitudine mathematicarum*. Although tackling a subject that would usually fall into the field of history of mathematics, Schöttler takes a distinctly philosophic approach to it. Following the different positions held by better known figures such as Alessandro Piccolomini, as well as less well known contributors to the debate, Schöttler's interest is in demonstrating that the conceptual battle over the question of whether or not mathematical proof derives its certainty from the Aristotelian syllogistic framework gave birth to an important by-product: the relational conception of mathematics, that is, the view that mathematical proof (to be more specific, geometric proof) relies on the internal relationship between the actual figures and their construction. The author goes a step further by suggesting that this transformation facilitated important mathematical developments such as Descartes's analytic geometry, Leibniz's infinitesimal calculus, and even the conceivability of a non-Euclidian geometry.

Steven Burgess explores the question of the presuppositions that make Descartes' metaphysical project of the *Meditations* possible; in other words, he is interested in what escapes even hyperbolic doubt. Following Descartes very closely through the Objections and Replies, the author concludes that the method of doubt can take place only within the framework of "rationality," which itself is outside the remit of any skepticism, in much the same way as geometers take mathematical procedures for granted in the conduct of their demonstrations.

On the contrary, Tzuchien Tho's article "Equivocation in the Foundations of Leibniz's Infinitesimal Fictions" takes a very different approach. As a way to illuminate the philosophy behind Leibniz's fictional infinitesimals, Tho decides to tackle the problems that the reductionist interpretation encounters when confronted with the questions that Leibniz pursued in his mathematical program. Tho develops

his argumentation around two equivocal assumptions of the reductionist position: first, the fact that one can find an ontological, metamathematical foundation for infinitesimals and second, the fact that mathematical rigor is associated with the admissibility of actual infinitesimals.

By comparing Descartes' *Meteorology* and *Le Monde*, Patrick Brissey's article identifies in the latter the "hidden" foundation of the former. In itself, the thesis is historical, yet it also has an important consequence for our reading of Descartes' overall program: it provides a means of reconciling the opposition between the hypothetical, problem-solving Descartes and the system-building Descartes. Brissey uses a comparative study of the conceptual relations between the *Meteorology* and *Le Monde* as a way to unify Descartes' Descartes' natural philosophical program.

Joseph Anderson deals with the question of how Leibniz explored the problem of the author of sin in an early text, *Confessio philosophi*. More specifically, Anderson argues that, despite his claims to the contrary, the Leibniz of the *Confessio* is in fact a necessitarian. Anderson goes on to claim that Leibniz hid this radical position for strategic reasons, in order to make his work more appealing to less-radical theologians.

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