

## **Imagining possibilities: in honour of Amos Funkenstein**

**Robert S. Westman and David Biale (eds): Thinking impossibilities: the intellectual legacy of Amos Funkenstein. University of Toronto Press, Toronto, 2008, viii + 365 pp, US\$65.00 HB**

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This book is dedicated to the memory of Amos Funkenstein (1937–1995), the “last German-Jewish philosopher”, as David Biale puts it. Building upon the contributions of a conference in Funkenstein’s memory in 1996, this volume celebrates Funkenstein’s work by demonstrating how his legacy has inspired many scholars to conduct a broad range of intellectual endeavours in the history of religion, in Jewish Studies, and in the history of science. The editors have included additional papers, some of which were published elsewhere before, such as their introduction, which describes Funkenstein’s approach as ‘cultural dialectics’.

The volume presents a collection of fine and thought-provoking papers. Its composition reflects three themes of Funkenstein’s work: “Historical Dialectics”, “Historical Accommodation” and “Making Knowledge”. Together with the introduction, the first two sections provide a nuanced and multifaceted insight into Funkenstein’s work and legacy. However, it is too great a task to cover all—or even the main—aspects of his intellectual horizon in only one book. We will come back to this point later. For now, I will largely concentrate on the first section, for it could well have been the core of a volume in its own right.

“Historical Dialectics” contains five case studies that mostly revisit places or figures well known in the history of science, but under a “Funkensteinian” perspective. Funkenstein was one of the first scholars to conceive of the relationship between science and religion, knowledge and belief, (“medieval”) mysticism and (“modern”) rationalism neither as one of antipodes or mutual exclusive spheres, nor as one of chronologically delimitable historical periods, but as a dialectical one. Within the same dialectical process, scholastic arguments were turned against scholasticism itself: The scholastic attributes of God (omnipotence, omnipresence, providence, and divine knowledge) were used as argumentative tools for breaching the Aristotelian framework of knowledge production.

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This development is aptly demonstrated by Steven Livesey's chapter on "Divine Omnipotence and First Principles". Fourteenth century theologians discussed the relationship between subalterning and subalternate sciences—in comparison with the relationship between theology and the knowledge of God. Thomas Aquinas introduced an interesting thought experiment: If divine power destroys all the knowledge of the subalterning science (e.g., geometry) but conserves the knowledge of the subalternate science (e.g., perspective) in the mind of a person, would the perspectivist then still have knowledge—or would the perspectivist rely only on belief? Would the remaining knowledge still have to be called science? And could true knowledge also be gained from experience? When discussing these issues, medieval theologians were concerned first and foremost with the status of theology; later on, however, the discussions shifted towards questions of epistemology, or of the relation between observation and theoretization.

The section aims at empirically validating Funkenstein's theory that what had been considered as absurdities or improbabilities in ancient and medieval times turned into limiting cases in the Early Modern period and served as cornerstones for the laws of nature in the 17th century (e.g., the im/possibility of the existence of a vacuum). In his "Theology and the Scientific Imagination" (1986), Funkenstein explains how that dialectical process evoked a specific sort of writing about nature as god's creation, conceived by laymen for laymen, which he termed "secular theology". In the 16th century, non-theologians—in particular natural philosophers—entered the social and epistemological space that had hitherto been reserved for theologians, thereby turning the study of nature into a "sacred activity". Thus, "God ceased to be the monopoly of the theologians". At the same time nature became as legitimate a source for knowledge about God as the Holy Scripture.

Robert Westman's chapter "Was Kepler a Secular Theologist?" provides a convincing example of this trend. Westman focusses on Kepler's "discovering" that there were only six orbs, and consequently five spaces between them. Kepler then combined the Copernican ordering with the platonic solids and claimed that he had found God's geometrical plan of the universe: He assumed that the inscribing and circumscribing circles of each solid—nested into one another in correct order—correspond with the orbits of the six known planets. Kepler's subsequent "Mysterium Cosmographicum" (1596) was the first published defense of the Copernican system. Citing Kepler's correspondence with his teacher, Maestlin, who was promoting the politically sensitive publication of the book at Tübingen, Westman shows that Kepler was deeply convinced that his findings served to honour God and that "God wished to be known through the book of Nature" (p. 46), through, for example, the Copernican system.

Funkenstein also contributed most substantially to Jewish studies, but this is not a focus of the volume. One of the few exceptions is Gad Freudenthal's "Jewish Traditionalism and Early Modern Science: Rabbi Israel Zamosc's Dialectic of Enlightenment". Rabbi Zamosc, an early proponent of the Haskalah, criticised Talmudic authorities with an explicitly rationalist attitude. He derived his astronomical and mathematical knowledge from medieval Hebrew scientific texts such as Maimonides. He left his home town Zamosc in 1740, because his rationalist enlightened standpoint had provoked tensions in the traditionalist community. In

Berlin, where he became the teacher of Moses Mendelssohn, he got in touch with contemporary science. In a commentary to an auxiliary text to Maimonides' Guide of the Perplexed, Zamosc brings in his recently acquired scientific knowledge, yet as a source for a deep scepticism that questions not only Maimonidean rationalism, but scientific inquiry in general.

Freudenthal thus depicts Zamosc's commentary as a radical turn to traditionalism and conservative fideism, which took place within a period of but 3 years. But perhaps the rationalist and the conservative moment were two poles of an ambivalent and deeply critical mind that always was at odds with easy and dogmatic answers dominant in the surrounding society. I do not mean to neglect Zamosc's existential crisis after his arrival in Berlin, but that he really dismissed the Maimonidean perspective altogether is questionable.

This critique leads me to an aspect that lies outside of the field of vision of the Funkensteinian approach: The sociopolitical context seems to play a crucial role, as both the examples of Kepler—in Tuebingen, Prague and Graz—and Rabbi Zamosc—in Zamosc and Berlin—show. Scholars who spent their lives at places with contrasting sociopolitical atmospheres might be viewed as “embodying” the Funkensteinian dialectic within only one person.

Another case of “embodied dialectics” is presented by Peter Hanns Reill's chapter about Johann Salomo Semler. Semler was a well-known theologian who embraced a non-dogmatic, humanistic and progressive Protestantism and at the same time an unbowed enthusiasm for the hermetic tradition and alchemy, going as far as to consider the creation of gold from air a real possibility. For modern readers, it is quite difficult to integrate Semler's liberal and even modern religious attitude with his seemingly archaic, mystifying belief in hermeticism. Reill approaches this paradox with a Funkensteinian attitude towards absurdities. Semler assumed two forms of matter: A perceptible one that had already gained form and a more spiritual one that awaits to assume a specific form. Normal chemistry was to investigate the matter already formed; “secret chemistry”, understood as a private, unselfish contemplation, was suitable for studying the spiritual, “primary matter”. Reill demonstrates that a parallel dualism can be found in Semler's theological views, where he distinguished between a public theology and “more universal moral or spiritual private religion”—a much more common notion to modern readers.

One can easily envisage this section turned into a book with the number of case studies considerably increased. This would solve two problems at once: Firstly, the unavoidable disparity of the studies, and secondly, the empirical desiderata of Funkenstein's long durée perspective. In a certain way Dorit Tanay's chapter (“Science and the Musical Imagination from the Late Middle Ages to the Early Modern Period”) suffers from both. It draws on mainly two empirical examples: The expansion of rhythmic vocabulary by way of theoretical imagination in the 14th century, and the establishing of dissonances and unisons as legitimate musical material in the late 16th century by Vincenzo Galilei. Both are telling examples of absurdities becoming cornerstones of new theories, and Tanay's profound reflections on their epistemological significance are intriguing, but the chapter fails to connect the examples historically.

The second section, “Historical accommodations”, draws on another important aspect of Funkenstein’s works. Funkenstein claimed that Early Modern historicism had its roots in medieval notions of historical consciousness; historical consciousness was expressed by the notion that God “speaks the language of human beings”, adapts to their very capacities, and thus to the respective stage of their societal development. The five chapters of this section address Funkenstein’s theories directly, rather than taking them as an inspiration for new case studies. They revisit the sources he drew on—and those he had not considered. Of great interest for the history of historiography, this section can easily be imagined as a book in its own right and will thus not be discussed in detail here.

The third section, “Making Knowledge”, combined with Funkenstein’s (not systematically explained) “knowing by doing”, raises expectations with regard to the practical turn, which has informed much recent work in the history of science. However, it contains only two chapters, none of which fulfills these expectations. Despite this fact Hanina Ben-Menahem’s chapter on the Talmudic understanding of the relationship between teacher and student is a wonderful study, inspired by a Funkensteinian pair of opposites, namely closed and open knowledge.

It is a bit disappointing that Funkenstein’s crucial role for the field of Jewish Studies is not reflected by the volume’s conception. Students of German-Jewish history will be very grateful for the concluding translation of Amos Funkenstein’s text “Jewish history among the thorns”. The inclusion of a Funkenstein bibliography is also a great asset.

To sum up, as an extremely inspiring and sophisticated volume, *Thinking Impossibilities* provokes thoughts about the manifold possibilities hidden within it—and this is not only what the title promises, but also what a volume can and should achieve.

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