



Department of Anglophone Literatures and Cultures

**Report on the PhD Dissertation “How to discover things with words?  
John Wilkins: from *inventio* to invention” by Maria Avxentevskaya**

in the Erasmus Mundus Joint Doctorate Programme “Text and Event in Early Modern Europe”  
(TEEME)

This is an original, innovative and interdisciplinary approach to the complex development in early-modern science called “paradigm-shift” by Thomas Kuhn. The main contribution of Maria Avxentevskaya’s thesis is a persuasive demonstration of the fact that this shift was not intrinsic to science itself, nor even to epistemology, but was, to a considerable extent, the outcome of the development of early modern rhetoric (Philip Sidney, Peter Ramus, Francis Bacon and others). This aspect of the “paradigm-shift” has not been sufficiently studied even by recent Poststructuralist, deconstructive approaches (e.g., Paul de Man).

Although not exceedingly attentive to Michel Foucault’s structural and semiotic determination of individual “epistemes” (*The Order of Things*) and his theory of discourse (*Archeology of Knowledge*), Maria makes amends for it by developing the theory of speech acts and performative knowledge (Bertrand Russell, Gilbert Ryle, J.L. Austin) to explain the productive relationship among early modern rhetoric, theory and practice of *mimesis* and invention, and the formation of conceptual structures and experimental methods of modern science. In this respect, her work has a unique position among recent approaches to the history of early modern science and corrects the schematic Husserlian and Foucauldian approaches pointing out the supreme importance and universality of mathematical formalization (“mathesis”) for the birth of modern science.

Maria’s decision to make John Wilkins (and not Bacon, Locke or Newton) the central figure of her historical investigation may be criticized from the point of historical “grand narratives”. On the other hand, it can be defended in pragmatic terms, since Wilkins’ work, seminal for the rise of the Royal Society, much better demonstrates the relation of early modern science to such dubious, yet indispensable notions as “wonder,” “magic,” “imagination” and “invention”. The important implication of Maria’s thesis is that, in historical perspective, modern scientific objectivity is a construct that originated as a result of cross-fertilization of verbal and non-verbal arts.

This is evident from Maria’s detailed research of Wilkins’ theory of mechanics, showing its different implications for “liberal arts,” “mechanical arts,” theory and construction of machines, and also for the approaches to “divine” and “natural” providence. This part of the thesis (Chapters IV and V) is a great achievement both in historical and theoretical terms, since it shows the truly interdisciplinary, hybrid and heteroglossic features of the formation of modern science. It is a pity that Maria did not have time to confront her conclusions with Bakhtin’s notions of “hybridity” and “heteroglossia” (with the exception of a brief mention in a footnote, p. 267). The discussion of the mechanics of “divine providence” would also benefit from a more detailed study of later developments in Protestant theology, for instance, the use of Locke’s empiricism and ethics as well as Newtonian physics in the homiletic work of Johnathan Edwards, the famous figure of American “Great Awakening” and one of the predecessors of American Transcendentalism.

The last chapter on Wilkins’ project of “artificial philosophical language” is an apt conclusion of this study of the interrelationship of early modern science, epistemology, rhetoric and poetics. Its important achievement is a revision of the Foucauldian approach to the early modern theory of sign, including Russell’s concept of “experient knowledge”: “the function of language as a cognitive

instrument was viewed as consisting in translating the experient knowledge of nature into its descriptive knowledge through the mastery of vivid representation” (p. 268). The important change in the development of universal language theories, the transition from the ‘motivated’ (searching for “the lost natural connection between words and things” p. 281) to the “arbitrary” concept of sign, is detailed in the discussion of individual attempts at developing a universal language, and especially of Wilkins’ theory in his *Essay Towards a Real Character and a Philosophical Language* (1668). Unlike de Saussure, Wilkins distinguishes between “words” and “arbitrary signs” in “philosophical language” instrumental for grasping the world of “material things” (p. 283). In this way, arbitrariness is not treated as an *ontological* quality, as it is in de Saussure, and even – “*sous rature*” (as “trace”) – in Derrida’s writing, but as a *pragmatic* function, which surprisingly points back to Aristotle’s distinction between “probable” (*sēmeion*) and “infallible” (*tekhmērion*) signs in *Rhetoric* (I.2.1357b). Although Maria’s conclusion that Wilkins “views knowledge not as an amount of information, but as a scenario of *différance*, specifying the path of scientific thinking about objects, which could shape narrative grids for performing common discourse” (p. 283), may seem revealing, it does not deal with the problem of *relativism*, implicit in de Man’s deconstruction and discussed (e.g., by Carlo Ginzburg) in reference to the pragmatic function of rhetoric. The problematic aspect of Wilkins’s approach, which Maria does not quite seem to grasp, consists in its focus on Aristotle’s “simple apprehensions” translated into “sufficient differences perceived by the sense” (p. 284), rather than on the pragmatic understanding of the arbitrariness of sign, establishing the link between *probability and truth*. Arbitrariness of sign then matters as a *value* relevant for *the search for truth*, which, in specific cases, can be decided only by negotiation using the persuasive powers of speech. From this point of view “the apprehension of immediate experience” (p. 291) is not a fact but a fiction which must be established as truth by a debate relying on the force of rhetoric. Though it is interesting to compare Wilkins’ system of language with de Saussure’s *la langue* (p. 304), it should be kept in mind, that the “interdependent terms” in de Saussure are understood ontologically, not performatively, let alone rhetorically.

As a result, the last chapter seems to depart methodologically from the direction established in the previous chapters. Still it is provocative and rewarding both in heuristic and in theoretical terms, especially in the final surprising reference to Umberto Eco’s comparison of “Wilkins’ scheme ... to hypertext” as “a framework for displaying the connections between topics through symbolic links” (p. 307).

To sum up, the present dissertation is a remarkable theoretical and historical achievement, which redraws our image of the development in early modern science using wide and deep knowledge of early-modern rhetoric and of its recent interpretations. Moreover, the thesis significantly transcends disciplinary limits especially in direction towards philosophy of language and epistemology. The dissertation is publishable after careful language and copy editing. I recommend it for the “defence” and am convinced that it fulfils all the criteria for the award of a *distinction*.

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