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Richard Nate:

Wissenschaft und Literatur im England der frühen Neuzeit

(Figuren, vol. 9)

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The purpose of this book is to demonstrate the interdependence between scientific and poetic modes of discourse in seventeenth-century England. Unlike many literary historians, Nate is not content with simply identifying the presence of contemporary intellectual ideas in literary texts; nor does he seek to demonstrate the inventive function of poetic devices in seventeenth-century philosophy, as did Jeanne Fahnestock very successfully in *Rhetorical Figures in Science* (1999). Instead, Nate regards science and literature primarily as modes of expression, which, even if they represent discrete cultures, also respond to and resemble each other. Nate's study thus places itself within a scholarly tradition that regards Early Modern literature in terms of the broader culture of letters.

As Nate demonstrates, scientific texts (e.g., philosophy, historiography, topography) often adopt such stylistic and structural norms and conventions as are normally associated with literary texts, and vice versa. *Wissenschaft und Literatur* thus studies the intertextual features of fiction and non-fiction, and describes the mutual relationship between scientific and poetic modes of discourse ("Interdiskursivität"). It appears that seventeenth-century utopian writing, in particular, comments on and borrows traits from a diversity of subjects and genres, such as history and philosophy, biography and topography, rhetoric, poetry, politics, and developments in science. The hybrid genre of the utopia thus emerges as Nate's favourite literary species, since it exhibits precisely the kind of crossover quality that he is looking for.

Even if Nate notes the close affinity between modes of discourse in science and poetry, his discussion of the efforts made by members of the English Royal Society and others to lay down the rules of discourse also reminds us that much of the literary criticism of the Restoration period was in fact created largely independently of the scientific community. John Dryden may be the prime example of how there were indeed "two Cultures" existing side by side (pp. 175-76). Although a member of the Royal Society, Dryden (who is often considered as being the Father of English literary criticism) never gave any indication of having attended any of its meetings. While the advocates of the plain style generally granted that poets should be allowed some poetic licence in dealing with truth and nature, the present study is more concerned with the kind of texts that relate themselves most immediately to the concerns of the New Science.

The ground rule of Bacon
"Science and Literature in Early Modern England" – as the title of Nate's book translates into English – consists of five parts or main chapters, the first of which is devoted to Francis Bacon, the obvious *Leitfigur* (p. 21) of any study in seventeenth-century language

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theory (Part I: "Grundlegungen: Wissenschaft, Literatur und Rhetorik bei Francis Bacon", pp. 23-94). The first part of the book thus serves as a comprehensive 'state-of-the-art' introduction to Bacon's views on words, knowledge, literature, and education in *Instauratio Magna*, the *Advancement of Learning*, the *Novum Organum*, and *De Augmentis Scientiarum*. By contrasting the discussion of ancient myths in Bacon's *De Sapientia Veterum* (1609) with Henry Reynolds's neoplatonic *Mythomystes* (1632), Nate highlights Bacon's idea of the instrumental value of figurative expression. In the last sections of Part I, Nate proceeds to demonstrate how key elements of Bacon's philosophy and rhetorical theory reappear in the fragmentary utopian narrative called *New Atlantis* (1627).

The second part of the book ("Interdiskursivität als Merkmal frühneuzeitlicher Utopien", pp. 95-139) gives a general description of the mixed generic nature of Early Modern utopian writing, as well as of the forms and functions of the utopia as a genre. Whether they are to be regarded as a product of the Puritan Revolution, or of the Restoration, such works as Gabriel Plattes's *Description of the Famous Kingdome of Macaria* (1641) and Joseph Glanvill's *Anti-fanatical Religion, And Free Philosophy* (1676) are seen as having at least their multi-referentiality and hybrid style in common. As fictional narratives pretending to be true, seventeenth-century utopias such as Francis Godwin's *The Man in the Moone* (1638) may, as Nate claims, justly be termed "science fiction" (p. 120).

The first two parts of the book (pp. 23-139) thus establish Nate's method of identifying the poetological and rhetorical considerations inherent in various theoretical treatises ("Texttheorie"), before investigating the actual use of and reference to those theories of language and reality in literary texts ("Textpraxis"). Nate insists that if we are to understand the full implications of seventeenth-century speculations about language and literature, we need to examine the various ways in which those theories were put into practice. The so-called Scientific Revolution is consequently seen as being, if not wholly determined by rhetorical concerns, then at least involving some fundamental rhetorical and poetological speculation (p. 240).

The case of Cavendish
In Part III ("Die Normierung der Diskurse: Sprache und Literatur im Kontext der *Royal Society*", pp. 141-200) Nate presents the recommendations for the plain style, which were promoted by members of the Royal Society (established in 1660). Along with Thomas Sprat's rules of scientific discourse, which were set out in the *History of the Royal Society* (1667), the neoclassical emphasis on reason and judgment in the writings of Thomas Hobbes, John Dryden, and John Locke is compared with the Humanist view of language and poetry in George Puttenham and Philip Sidney.

By selecting for close inspection the work of Margaret Cavendish in Part IV ("Diskurse, Textsorten und ihre Reflexion im Werk von Margaret Cavendish", pp. 201-35), Nate subsequently investigates the extent to which the norms of scientific discourse are allowed to influence poetic writings. The fourth part of the book is thus related to the third part as the second to the first: through a comparative analysis of Cavendish's *Observations upon Experimental Philosophy* (the level of "Texttheorie") and the utopian narrative called *The Blazing World* (the "Textpraxis"), both of which appeared in 1666, Nate shows how almost every scientific topic and gadget (such as the account of the microscope in Robert Hooke's *Micrographia* of 1665) recur in the dialogues of the poet's make-believe world.

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Margaret Cavendish, Duchess of Newcastle (1623-74), has recently become a key figure in studies of Early Modern women writers.[1] In Nate's reading, too, she holds a pivotal position: as a woman, she seems bound to adhere to the stylistic programme of her time in order "to be heard at all."[2] As Nate has argued in an article, which may serve to summarize his findings, "her writings demonstrate how strong the drift towards a stylistic stand-ardization had become in the 1660's."[3] However, the Duchess was also someone who openly criticized experimental philosophy and who dared satirize the style and status of the Royal Society. *The Blazing World* transgresses the norms of scientific discourse while at the same time embodying the very principles that are subjected to ridicule. In this respect, Nate argues, Cavendish offers a complex reading experience, later to be developed by Jonathan Swift.

In the fifth and final part of the book ("Die Auseinandersetzung mit der Norm: Kulturkritik und Parodie", pp. 237-316), Nate examines the critical writings of, among others, William Wotton and William Temple with relation to the English *Querelle des Anciens et des Modernes*, before turning to Swift's satires, in which the key issues of the English *Querelle* find their ultimate expression (p. 263). In Nate's reading, Swift, like Cavendish, elicits an ambivalent attitude towards the contemporary scientific community. On the one hand, *The Battle of the Books*, *A Tale of a Tub*, and *Gulliver's Travels* are presented in *Wissenschaft und Literatur* as being imitative of discursive modes known from science. On the other hand, they are also presented here as parodying what we might call the seventeenth-century's near-religious belief in the virtues of the plain style.

Exemplary analyses

Throughout his study, Nate regards both rhetoric and poetics as "historische Texttheorien" (p. 17) that consider different modes of representation in science and literature (p. 14). The way in which Nate relates the "Exemplarische Analysen" of Part II (such as the analyses of Gabriel Plattes's *Macaria* (1641) and the utopias of "R. H." and Joseph Glanvill) to the political, social, or theological context is indeed exemplary. Even so, Nate's examples are somewhat lacking in perspective when it comes to actually studying the texts as acts of communication. What was their intended and potential readership? In what ways were the writers' choices determined by their respective communities of readers? It has to be said that *Wissenschaft und Literatur* does not give much insight into the relationship between science and poetry with respect to questions of readership, language choice (Latin or the English vernacular), dissemination, and literacy.

Nate does little to determine the precise nature of the "Öffentlichkeit" and "öffentlichen Diskurs" (see, e.g., p. 139) that he mentions in connection with scientific and poetic discourse from Bacon onwards. The so-called Battle of the Books was, after all, conducted within the domains of the coffee-houses, which, together with the *salons* and the

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[1] See e.g. James Fitzmaurice, Josephine A. Roberts, et al. (eds.), *Major Women Writers of Seventeenth-Century England* (Ann Arbor: University of Michigan Press, 1997); Lynette Hunter and Sarah Hutton (eds.), *Women, Science and Medicine 1500-1700: Mothers and Sisters of the Royal Society* (Stroud: Sutton, 1997); Sylvia Bowerbank and Sara Heller Mendelson (eds.), *Paper Bodies: A Margaret Cavendish Reader* (Peterborough, Ontario: Broadview Press, 2000).
[2] Richard Nate, "'Plain and Vulgarly Express'd': Margaret Cavendish and the Discourse of the New Science", *Rhetorica* 19:4 (2001), pp. 403-17:405.
[3] Art.cit. (in note 2 above), p. 417.

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Tischgesellschaften, constitute Jürgen Habermas's bourgeois public sphere. But whether or not Nate's use of the term "Öffentlichkeit" is intended to allude to Habermas remains unclear.

A missing link
While no diachronic study can be expected to cover every possible aspect of the issues at stake here, the reader of *Wissenschaft und Literatur* will look in vain for a basic account of the preconditions for the process of linguistic standardization. The seventeenth century was the period in which English was made "into a fully functional national language".[4] The use of the vernacular was gradually becoming dominant in literature and commerce and was challenging the Latin hegemony in education and science. The fact that throughout the century the vernacular was still changing rapidly thus provides the seventeenth-century standardization programme with a background. The Latin-vernacular debate might even be seen as providing a missing link between science and poetry, in so far as the increase in the use of English was one obvious domain where Restoration scientists were following the glorious example of Renaissance poets.

Regarding the commonplace question of whether or not the insistence on the plain style and the linguistic projects associated with the New Science contributed to a reduction of the role of rhetoric, *Wissenschaft und Literatur* neither promises nor offers any answers. In terms of the history of rhetoric, the ideal reader would be familiar with the argument of Brian Vickers and Nancy S. Struever in *Rhetoric and the Pursuit of Truth* (1985), and would know the period in general terms from Wilbur S. Howell's *Logic and Rhetoric in England, 1500-1700* (1956). One would perhaps have expected to find more titles containing the words "rhetoric" or "eloquence" among the treatises that are listed chronologically in Nate's handy Appendix. However, it appears as if *Wissenschaft und Literatur* confirms Edward Corbett's argument in *Classical Rhetoric for the Modern Student* (1965) that part of the most influential rhetorical theory of the seventeenth century came from works (such as Bacon's) which were not really dedicated to the study of eloquence.

Sometimes, Nate chooses to represent his lines of thinking graphically. The complex, introductory "Historiographisches Modell" (p. 18) and the overview of "Die 'Welten' der *Blazing World*" (p. 228) may meet some resistance in those readers who are not used to viewing semantic and structural relationships in terms of squares and arrows. But Nate's arguments are generally well-presented and carefully explained in the text, as in the excellent 12-page introduction ("Einleitung"). It would, however, have benefited the reader if Nate had rounded off his discussion with an equally stringent general conclusion.

Excellent guidance
Richard Nate deserves praise for structuring his argument in such a way that the reader is carried effortlessly from one part or section to another. The index, too, generally provides excellent guidance, as in the case of the seventeenth-century categorization craze: by using the indexation of the "System der Disziplinen", the reader can easily compare the classification of the arts in Bacon's *De Augmentis* (1623) with the systems of classification found in, for instance, Thomas Hobbes' *Leviathan* (1651), John Webster's *Academiarum*

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[4] Cf. Manfred Görlach, "Regional and Social Variation", in Roger Lass (ed.), *The Cambridge History of the English Language*, vol. 3 (1476-1776) (Cambridge: Cambridge University Press, 1999; reprint, 2001), pp. 459-538:476: "In order to make English into a fully functional national language, its uses had to be extended into domains associated with Latin, such as the sciences".

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Examen (1654), Abraham Cowley's *Proposition for the Advancement of Learning* (1661), and John Locke's *Essay Concerning Human Understanding* (1690).

   Wissenschaft und Literatur can be recommended to scholars and students in English literary and/or intellectual history, and particularly to those who have a special interest in seventeenth-century rhetoric and prose study.

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