LANGUAGE, MIND AND NATURE

In the attempt to make good one of the desiderata in Bacon's *Advancement of Learning*, a cohort of seventeenth-century philosophers, scientists, schoolmasters, clergymen and virtuosi attempted to devise artificial languages that would immediately represent the order of thought. This was believed directly to represent the order of things and to be a universal characteristic of the human mind. *Language, Mind and Nature* fully reconstructs, for the first time, this artificial language movement. In so doing, it reveals a great deal about the beliefs and activities of those who sought to reform learning in seventeenth-century England. Artificial languages straddle occult, religious and proto-scientific approaches to representation and communication, and suggest that much of the so-called 'new philosophy' was not very new at all. This study breaks new ground within its field, and will be of interest to anyone concerned with early modern intellectual history or with the history of linguistic thought in general.

RHODRI LEWIS is a Fellow of the Max-Planck-Institut für Wissenschaftsgeschichte, Berlin. This is his first book.

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LANGUAGE, MIND AND NATURE

Artificial Languages in England from Bacon to Locke

RHODRI LEWIS

Max-Planck-Institut für Wissenschaftsgeschichte, Berlin

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Much intellectual history is made possible only through the generosity, knowledge and forbearance of librarians. I am indebted to the staff at all the libraries cited in the bibliography and notes, but particularly to those of the Rare Books and Manuscripts Rooms of the British Library, the Upper and Lower Reading Rooms of the Bodleian Library, the library of the Max-Planck-Institut für Wissenschaftsgeschichte, and the Ahmanson Room of the Huntington Library. Nevertheless, I got through most of my reading in Duke Humfrey's Library in the Bodleian. A special word of thanks is thus due to Alan Carter, Russell Edwards, William Hodges and Jean-Pierre Mialon, who provide their readers with a first-class service in circumstances that are very much more testing than they should be.

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exist. When the time came, my doctoral thesis was examined by John Carey and Scott Mandelbrote.

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Of course, my indebtedness to all of the above-named means that I cannot conclude without genuflecting towards one of the most benign of prefatory conventions: the inconsistencies, omissions, errors and misinterpretations that will be discovered within this book are mine, and mine

alone. Although technology might now ameliorate scholarly labours more efficiently than ever before, *verum operi longo fas est obrepere somnum*.

It remains to thank my friends for their habitual support, sanity and good humour. They know how important they have been.

R. L.
Oxford/Berlin, June 2006

Note on the text

Throughout this study, I refer to the 'artificial language movement'. As many readers will be used to thinking about the 'universal language movement' (if familiar with seventeenth-century language planning at all), then this might need a word of explanation.

In short, universal languages were one kind of artificial language devised by the figures I consider. A universal language would be one in which the language planner might make a list of words (from one or a number of extant languages), and accord them new symbols or words that could then serve for inter-linguistic communication. Esperanto is an artificial language created on this model. However, the principal goal of those who concerned themselves with the topic in the seventeenth century was the construction of a 'philosophical language' that would in some way replicate the order of thought. As seventeenth-century thinkers believed the order of thought to be uniform among all human beings, they held that such a language would in turn be universally understood. These are two distinct classes of scheme, which should be clearly distinguished. (A similar distinction obtains between 'universal' characters and 'real' characters.) Further, as many seventeenth-century language planners themselves frequently described their 'philosophical' language schemes as 'universal' (they were universal, but not *just* universal), there is a danger that any modern account of their activities would become confused without clear conceptual definition. Although doing so is a little anachronistic, I have thus opted to describe the 'artificial language' movement, with a view to better defining its constituent parts.

Much of the material I examine in this study comprises correspondence. Accordingly, a number of problems arise as a result of the peculiarities of the early modern English calendar. First, the English year was held to begin on 25 March; a letter written on 20 January 1668 (or, more helpfully, 20 January 1668/9) was thus more often than not written on 20 January 1669. Throughout, I treat the year as beginning on 1 January, and date

correspondence accordingly. Second, although continental Europe had switched to the Gregorian calendar, England remained on the Julian calendar until the mid-eighteenth century. Early modern English dates are thus ten days behind their continental contemporaries. In correspondence written to or from continental addresses, I give both forms of the date (e.g., 10/20 January 1669).

In transcribing manuscript (and printed) sources, I have tried to be as faithful as possible to the original text. I have retained conventions of punctuation, orthography and capitalisation, the only exceptions to which are that I have normalised the long 's', and that I have expanded ligatures. I have not expanded abbreviations (retaining, e.g., 'y^{r}' for 'your', 'y^{e}' for 'the', and so forth) in transcribing manuscript correspondence or notes, which in most cases were not intended for publication. I have, however, expanded such abbreviations in my transcriptions of manuscript treatises, as would have happened had they been handed to a seventeenth-century publishing house.

A bibliographical note: unless otherwise stated, all printed works that I cite were published in London. Further (again, unless otherwise stated), classical texts are cited from the editions in the Loeb Classical Library.

Abbreviations

For ease of reference, the following abbreviations and short titles are used throughout.

Akad.	G. W. Leibniz, *Sämtliche Schriften und Briefe*, 6 series, ed. der Deutschen Akademie der Wissenschaften (Darmstadt and Berlin, 1923–). (Cited by series, volume and page number.)
Aubrey	*Brief Lives, Chiefly of Contemporaries, set down by John Aubrey, Between the Years 1669 & 1696*, 2 vols., ed. Andrew Clark (Oxford, 1898).
BC	*The Correspondence of Robert Boyle, 1636–1691*, 6 vols., ed. Michael Hunter et al. (2001).
Birch	Thomas Birch, *The History of the Royal Society of London*, 4 vols. (1757).
BL	British Library, London.
Borst	Arno Borst, *Der Turmbau von Babel: Geschichte der Meinungen über Ursprung und Vielfalt der Sprachen und Völker*, 4 vols. (Stuttgart, 1957–63).
Bodl.	Bodleian Library, Oxford.
Calamy	*Calamy Revised: Being a Revision of Edmund Calamy's Account of the Ministers Ejected and Silenced 1660–62*, ed. Arnold G. Matthews (Oxford, 1934).
Dalgarno	David Cram and Jaap Maat, *George Dalgarno on Universal Language: The Art of Signs (1661), The Deaf and Dumb Man's Tutor (1680), and the Unpublished Papers* (Oxford, 2001).
DNB	*Dictionary of National Biography*.
DRH	*The Diary of Robert Hooke MA, MD, FRS, 1672–1680*, ed. Henry W. Adams and Walter Adams (1935).
Essay	John Wilkins, *An Essay Towards a Real Character and a Philosophical Language* (1668).

Foster	Joseph Foster, *Alumni Oxonienses: The Members of the University of Oxford, 1500–1714*, 4 vols. (Oxford and London, 1891–2).
GI	Charles Webster, *The Great Instauration: Science, Medicine and Reform, 1626–1660* (1975; 2nd edn, Bern and Oxford, 2002).
HDC	George H. Turnbull, *Hartlib, Dury and Comenius: Gleanings from Hartlib's Papers* (1947).
HP	*The Hartlib Papers*, CD-Rom, 2nd edn, ed. Patricia Barry et al. (Sheffield, 2002).
JHI	*Journal of the History of Ideas*.
Knowlson	James Knowlson, *Universal Language Schemes in England and France, 1600–1800* (Toronto and Buffalo, 1975).
LAM	Paolo Rossi, *Logic and the Art of Memory: The Quest for a Universal Language*, trans. Stephen Clucas (2000).
Lodwick	Vivian Salmon, *The Works of Francis Lodwick: A Study of His Writings in the Intellectual Context of the Seventeenth Century* (1972).
Maat	Jaap Maat, *Philosophical Languages in the Seventeenth Century: Dalgarno, Wilkins, Leibniz* (Dordrecht and Boston, 2004).
NR	*Notes and Records of the Royal Society of London*.
OC	*The Correspondence of Henry Oldenburg*, 13 vols., ed. Rupert Hall and Marie Boas Hall (Madison, Milwaukee and London, 1965–86).
OFB	*The Oxford Francis Bacon*, 15 vols., ed. Graham Rees and Lisa Jardine (Oxford, 1996–).
Pepys	*The Diary of Samuel Pepys*, 11 vols., ed. Robert Latham and William Matthews (1970).
PL	*Philosophical Letters between the Late Learned Mr. Ray and Several of his Ingenious Correspondents*, ed. William Derham (1718).
RSL	Royal Society Library, London.
Shapiro	Barbara J. Shapiro, *John Wilkins, 1614–1672: An Intellectual Biography* (Berkeley and Los Angeles, 1969).
Slaughter	Mary M. Slaughter, *Universal Languages and Scientific Taxonomy in the Seventeenth Century* (Cambridge, 1982).
Venn	John Venn and J. A. Venn, *Alumni Cantabrigienses: A Biographical List of all Known Students . . . at the University of*

	Cambridge from the Earliest Times to 1900, 10 vols. (Cambridge, 1922–54).
Wood	Anthony Wood, *Athenae Oxonienses. An Exact History of All the Writers and Bishops who have had their Education in the University of Oxford. To which are Added the Fasti, or Annals of the said University*, 4 vols., ed. Phillip Bliss (1813–20).