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0521541166 - Defining Science: William Whewell, Natural Knowledge, and Public Debate
in Early Victorian Britain

Richard Yeo

Frontmatter

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William Whewell is now recognized as the first systematic writer on the history and philosophy of science. This book shows how he engaged in metascientific criticism in the early Victorian period, when the social and intellectual status of 'science' and 'scientists' were still matters of contention. In coining terms such as anode, cathode, physicist, and scientist, he contributed not only to scientific vocabulary, but also to the language in which science is now discussed. Whewell was concerned with the nature of science in the broadest sense – its history, ethos, metaphysical foundations, religious, educational, and social implications, and the intellectual and moral biography of its practitioners. These issues were discussed in a public forum in books, journals, addresses, and sermons. Whewell was arguably the major, but not the sole, participant in these debates; yet more so than others, such as John Herschel and David Brewster, he sought to justify a role for himself as a metascientific commentator while still establishing the language and concepts of history and philosophy of science. Whewell's work can therefore be seen not only as an attempt to define science, but to clarify his vocation as its leading critic.

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IDEAS IN CONTEXT
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DEFINING SCIENCE

*William Whewell, natural knowledge, and public debate in
early Victorian Britain*

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For
Mary Louise, Gillian, and Claire

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Preface

My interest in the place of science in early Victorian culture began with postgraduate work on natural theology as a philosophical framework for scientific investigation in that period. Whewell was a figure in this thesis and has been in other work I have published. But it is only recently, and with the benefit of some further specialist studies, that it has seemed possible to use Whewell as the focus of a book on debates about the nature of science in nineteenth-century Britain. Inevitably, this brings problems of selection, since nothing like comprehensive attention can be given both to Whewell's activities and to the range of issues in the public discussions in which he participated. Consequently, I have not attempted to include detailed accounts of Whewell's interventions in particular scientific disciplines such as mineralogy, geology, or electrochemistry, or his contributions to terminology. Where possible, I indicate other relevant treatment of these topics. I have aimed to place Whewell's work in its cultural context and therefore hope that this book will interest not only people who already know Whewell, but also students of Victorian intellectual history more generally.

Although this book was written over the last few years, it has a prehistory. During this time, which I'd rather not quantify, I have happily gathered many debts. An inadequate attempt to recount them should start with thanks to the librarians of Fisher Library, Sydney University, and Griffith University Library, especially the interlibrary loans staff who ferry the large Victorian holdings of Australian institutions. The staff of Trinity College Library, Cambridge, have provided vital assistance, and I am also grateful to the Master and Fellows of the College for permission to use papers in their custody and to reproduce the portrait of Whewell on the jacket. I also thank the staff of the British Library, the Library of the Royal Society, London, the National Library of Scotland, and Edinburgh

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University Library for their assistance and access to manuscript collections. The Faculty of Humanities, Griffith University, has supported the project over several years, and I have benefited from a university research grant and study leave. The final writing was done at the Institute for the Advanced Studies in Humanities, University of Edinburgh, where I was a Visiting Fellow in 1992. I would like to acknowledge that some of the material in chapter 9 appeared in my contribution to the collective volume on Whewell published by Oxford University Press in 1991.

Sometimes less tangible, but always crucial, have been the advice and interest of scholars and friends. John Brooke, Geoffrey Cantor, Menachem Fisch, Jonathan Hodge, David Knight, Rachel Laudan, Don McNally, and Simon Schaffer have shared enthusiasms for the problem of 'dealing with Whewell', and I value their conversation over the years. John Gascoigne and Dorinda Outram offered constructive comments from their respective comparative perspectives, and kindly read drafts of some chapters. I also thank David Oldroyd for giving me his spare copy of the *History*. Errors of fact and other shortcomings are my own.

Without the support, empathy, and sense of humour of my family, none of these other encouragements would have prevailed. I dedicate the book to them.

Brisbane

June 1992

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Abbreviations

BL	British Library
HP	J. F. Herschel Papers, Library of the Royal Society of London
NLS	National Library of Scotland
RS	Royal Society
WP	William Whewell Papers, Trinity College Library, Cambridge (small superior figures in WP references refer to folio numbers allocated to individual letters and pages thereof)