


BOOK REVIEW

Bernard Lightman and Efram Sera-Shriar (eds.), *Victorian Interdisciplinarity and the Sciences: Rethinking the Specialization Thesis*

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Grappling with categories of different kinds, including the names associated with the diverse endeavours that come within our purview, is an integral part of being a historian of science. Do such nouns denote disciplines, fields, bodies of knowledge, research areas, pedagogic practices or markers of occupational identity, perhaps in flexible combinations? Roget's *Thesaurus*, originally a Victorian artefact, treats science, knowledge, expertise and specialism as 'results of reasoning', and discipline as one type of order, suggesting just how wide-ranging these phenomena are and how elusive their historicity is. Such intricate issues may be usefully explored through deft, detailed case studies that keep larger historical shifts in mind. Whether the concept of 'interdisciplinarity' helps or hinders such investigations remains an open question. The editors of this volume acknowledge that the term is anachronistic when applied to the Victorian era, while suggesting that its use opens up new avenues for research. One immediate difficulty is that interdisciplinarity is predicated on the existence of disciplines, yet it remains unclear what counts as a discipline in the first place, especially in the nineteenth century, which is routinely presented as an era of rapid change with respect to the organization of knowledge, indeed to every aspect of society.

Victorian Interdisciplinarity and the Sciences draws attention to a number of '-ization' words, especially specialization and professionalization. Close cousins are institutionalization and, more contentiously, modernization. It is vital to subject such notions to critical scrutiny and to reflect carefully on the most productive ways of doing so. One possibility is to take their history seriously; that is, to historicize our own inherited modes of thought and practices, including the manner in which these have been shaped by the social sciences. Although not the approach taken here, it could be helpful, especially since those domains were taking shape during the very period covered by this book. Terms for periods, such as 'Victorian', invite similar scrutiny. So much hangs on concepts of modernity, whether implicit or explicit, that an era widely understood as the crucible in which it was forged needs to be critically examined. What larger forces were at work that can help make sense of science textbooks, huge exhibitions and ambitious expeditions, for example? The publishing industries and their audiences are central here. If we are to consider rhetorical moves around disciplines, mentioned a number of times in the volume, then those to whom such moves were directed deserve our attention. In any case, rhetoric is always situation-specific. Publishers acted as midwives and were

themselves strikingly ‘interdisciplinary’ in their interests and their practices, for example when they hosted meetings and dinners for their authors. These are some of the wide-ranging social, political and economic questions that future writings might address.

Victorian Interdisciplinarity has more modest aspirations. Lightman and Sera-Shriar have organized the ten chapters that make up this book under five headings: ‘Between disciplines’, ‘Synthesizers’, ‘Practices and displays’, ‘Reluctant collaborations’ and ‘Hybrid fields’, followed by an afterword. Both the subject matter and the approaches are diverse. There are chapters focused on individuals, with Janet Browne writing about Charles Darwin and Henry Thomas Buckle the subject of Ian Hesketh’s chapter. Lightman considers a particular type of literature – science primers published by the Macmillan brothers. Other chapters tackle domains of science, such as that by Geoffrey Cantor on electrochemistry, by Iwan Morus on physics and by Chris Manias on the study of early man. Two chapters take specific events as their starting points: Elsa Richardson examines a public exhibition on health and Nanna Katrine Lüders Kaalund an arctic expedition. James Stark and Richard Bellis address nutrition as a hybrid field, while Sera-Shriar probes a scientifically inspired investigation into a medium. Thus there is much ‘interdisciplinarity’ to be had here, and of markedly different types. An exhibition on health and the study of nutrition, which draw on human concerns that go back to the ancient world, were working with notions that, by their very nature, belong to no single field and thus are bound to be ‘interdisciplinary’, partly because so many social groups have a stake in them. Few people are uninterested in their own health, after all, and by the nineteenth century many constituencies articulated their concerns, as Richardson shows.

Many of the chapters reveal, whether they intended to or not, how flexible even fickle disciplinary practices were. As Janet Browne explains, Darwin was both a naturalist and an exponent of more specialized fields, such as geology, according to the situation in which he found himself. ‘His personal track seems to suggest that he did not recognize himself as engaged in interdisciplinary research’ (p. 79). Here lies the rub; if disciplinary boundaries are ill-defined, little-policed or ambiguous, it is hard to make the case that interdisciplinarity is a robust analytical term. And it is ironic that in many chapters historical actors are repeatedly tagged as ‘biologist’, ‘philosopher’, ‘politician’, ‘naturalist’, ‘zoologist’ and so on when in most cases they inhabited more than one such category. Whether the notion of interdisciplinarity captures the rich intellectual worlds of such figures is an open question. Rather we might take a leaf out of Morus’s book when he explores ‘different sorts of bodily practices and performances as ways of making knowledge’ (p. 136). His suggestion that it is also important to think about spaces and audiences is spot on since it leads naturally into the situations and contexts that can shed light on ‘results of reasoning’ without anachronistic encumbrance.