

thinking about this material culture, we can shed light on the relationship of time to imperialism and the transmission of cartographic and ethnographic knowledge during the colonial period' (p. 119). Her study exploits long-overlooked design features of these little dials. For instance, dials frequently included gazetteers, lists of places and their latitudes where the dials might be used. The places listed, however, taken in context with other data, reveal much about 'what French, British, and Spanish administrators, instrument makers, and users thought most important to have and identify in the vastness of colonial North and South America' (p. 169).

Laura Cházaro reminds readers of a Euro-American bias in presuming that 'scientific objects and the knowledge associated with them spread from an enlightened, industrialised Europe to a pre-capitalist America devoid of science' (p. 212). Mexican physicians imported and modified sphygmographs that served a nationalist agenda by creating stereotypes of the normative Mexican body. Cházaro's bracing but too brief essay is the only one on medical tools and the only one to pry open political and national agendas: one hopes that scientific instrument scholars will follow her lead and explore similar non-European contexts.

If intended for an audience beyond the Scientific Instrument Commission, this volume would be improved by an introductory essay that defines what is meant by a scientific instrument, provides a brief historiographical overview to the state of scientific instrument studies, and creates a context for the essays that appear. Without such an essay, casual but interested readers will have difficulty getting their bearings. Joshua Nall's and Liba Taub's (Cambridge University) essay on British scientific trade literature, with slight alteration, could have functioned as such an introductory essay given its articulation of common concerns of this volume's essays. They assert that 'behind [trade literature's] elaborate designs and meticulous illustrations lies important information about instrument design, industry trends, commercial demands, makers' techniques and specialisms, and even clues to the instrument business's social context' (p. 21). Thus social context embraces state interests, private entrepreneurship, labour and business history. Richard Kremer (Dartmouth College) argues the need for a 'longitudinal survey of the development of the making and selling of mathematical, optical and philosophical instruments . . . [which] remains a desideratum for the history of science and technology' (p. 173). One looks forward to synthetic and holistic studies of the scientific instrument trade that give perspective to the many particular case studies in evidence by the well-illustrated and researched essays in this volume.

A brief complaint about the publisher. It used to be a prerogative of writing reviews that reviewers claimed a copy of the book. Brill takes a different view. They offered a pdf version of the book and, when that was rejected, sent a cheap print-on-demand paperback, with many of the rich illustrations in reduced-quality black-and-white. This book is abundantly illustrated, but Brill's parsimony precludes useful comment.

Robert D. Hicks

Mütter Museum and Historical Medical Library,
The College of Physicians of Philadelphia, USA

doi:10.1017/mdh.2018.13

Sighard Neckel, Anna Katharina Schaffner, Greta Wagner (eds), *Burnout, Fatigue, Exhaustion: An Interdisciplinary Perspective on a Modern Affliction* (London: Palgrave Macmillan, 2017), pp. ix+316, £88/£70, hardback/ebook, ISBN: 978-3-319-52886-1 / 978-3-319-52887-8.

Exhaustion is an individual phenomenon of global concern, manifest in the elevated number of people affected by related syndromes. According to the World Health Organisation, depression – of which fatigue is a cardinal symptom – is the leading cause of disability worldwide, affecting over 300 million people of all ages. Incidence rates of chronic fatigue syndrome (CFS), myalgic encephalomyelitis (ME), and burn-out are also on the rise. Exhaustion is also a broader socio-cultural phenomenon, evident in discourses about the current political climate and ecological sustainability. It is present in the distrust of grand narratives and the disenchantment with capitalism in its current, neo-liberal form. In the words of the editors of *Burnout, Fatigue, Exhaustion*, '[o]ur age, it seems, is the age of exhaustion' (p. 1). The extent to which this is true, and the way in which exhaustion theories and discourses have proliferated in all of its forms in multiple disciplines, are the questions that this book sets out to explore.

Burnout, Fatigue, Exhaustion brings together a comprehensive interdisciplinary account of different theories of fatigue and exhaustion syndromes, from the fields of clinical psychology, medical anthropology, sociology, literary studies and history. The book has five parts and thirteen short chapters, which together constitute a rich introduction to the different methodological issues and theoretical approaches that surround fatigue and its related exhaustion syndromes. Particularly prominent amongst these is the example of burn-out, a cultural syndrome on the definition of which there is no medical consensus and which demonstrates national variations depending on the country where it emerges. Through each of its five parts, the book explores the ways in which exhaustion has served as a critique of modern times (either at present or in the past), the construction of exhaustion discourses and their social meanings and implications, and the creation of neo-liberal subjects who, in our context of contemporary capitalism, are pushed to find self-realisation and authenticity in their work.

Part I, 'Cultural-Historical Perspectives', addresses the cultural specificities and historical aspects of the symptoms of burn-out syndrome. Discussing acedia, or sloth, and melancholia, Anna Katharina Schaffner argues that since antiquity, different cultures and societies have been preoccupied with exhaustion on a physical, mental and spiritual level. Although the interpretations of what caused the conditions might have varied – the idea that we are possessed by a noon-day demon is no longer in vogue – these diseases shared the same symptoms as present-day syndromes like chronic fatigue, burn-out or depression, pre-dating neo-liberal attitudes to exhaustion. In Chapter 3, on neurasthenia and managerial disease in the USA and Germany, Patrick Kury argues that discourses of exhaustion emerged after intense social upheavals, whether they be the industrial changes of the late nineteenth century in the USA, or the efforts to reconstruct and restore a nation that had been severely affected by the Second World War in 1950s Germany.

Part II, 'Exhaustion Syndromes', reviews the medico-clinical and social usage of the terms depression, CFS/ME and burn-out, situating the emergence of each, and its conceptualisation, within a particular socio-cultural moment. In Chapter 4, clinical psychologists Johanna M. Doerr and Urs M. Nater show that the distinction between different syndromes like depression, CFS and burn-out is still rife with diagnostic difficulties and social stigma. In Chapter 5, 'Burnout: A Short Socio-Cultural History', the occupational psychologist Wilmar B. Schaufeli presents a short history of the concept and how it was accepted and contested in medical and social contexts. In line with the authors of the previous chapter, he argues that the development of a tool to measure the degree of burn-out – the Malsach Burnout Inventory, developed by Christina Malsach and her team in 1981 – made it more legitimate in the eyes of the scientific community (even though it is still not included as a disease in its own right in the ICD-10). Similarly, in

Chapter 6, 'Burnout: From Work-Related Stress to a Cover-Up Diagnosis', the social psychologist Linda V. Heinemann and the sociologist Torsten Heinemann review the academic debates and the media to show that burn-out contains significant gender and class bias in the construction and discourse of exhaustion, as well as national specificities. The responsibility of avoiding burn-out is also placed on the individual: they have to be aware of the organisation elements at work that produce the syndrome and adapt or even change their lifestyle in order to avoid these effects. Furthermore, despite enjoying a strong 'popular' presence that on the surface seems to hold a steady meaning, there is no medical consensus on what burn-out actually *is*, making it difficult to agree on any definition of it as soon as it is discussed in more detail.

In Part III, 'Exhaustion and Self-Realisation' (Chapters 7, 8 and 9), the authors point to the individualist imperatives of self-optimisation in our contemporary neo-liberal capitalist societies. In Chapter 7, the anthropologist Alain Ehrenberg argues that the centrality of mental health and emotional problems in our society is a 'form of "obligatory expression", which characterises an attitude towards contingency or adversity in a global context where autonomy is our supreme value' (p. 155). In Chapter 9, 'Exhaustion and Euphoria: Self-Medication with Amphetamines', the sociologist Greta Wagner demonstrates that, for those individuals who decide to self-medicate with these drugs, exhaustion and fatigue are perceived of as negative, undesirable states. For them, the use of performance-enhancing drugs is a means towards achieving 'self-realisation, autonomy, and activation in present-day society' (p. 197). Self-responsible subjects need to manage their 'resources', or human energy, in an effective way that allows them to continue competing, seeing results at work and finding satisfaction in what they do. Exhausted individuals are those who have failed to be responsible with this energy, have used it badly and therefore find themselves suffering from burn-out or any other exhaustion syndrome. In the same line, cures for this ailment rest on the individuals: they have to develop new coping mechanisms and world-views which will allow them to see every obstacle as an opportunity for growth rather than a hindrance.

Part IV, 'Exhaustion Discourses', explores the metaphorical representations of exhaustion and the literary uses it has had. The cultural sociologist Ulrich Bröckling argues that metaphors of exhaustion illustrate the complex experiences that individuals suffering from burn-out have: a double-meaning of self-discipline and self-care, who feel both pride for their monumental efforts to attain the impossible, and shame for not being able to succeed. Michael Greany, on the other hand, shows that, in late nineteenth-century literature, there existed a politics of exhaustion that spoke to class differences. In his own words, 'not everyone gets to take ownership of the meaning of their own exhaustion or to parlay tiredness into an aesthetic strategy or lifestyle choice' (p. 254), an interpretation which remains just as true then as in present-day discourses of exhaustion.

The final section, Part V, 'Exhaustion and the Social' explore the dynamics of social suffering and the abuse of subjectivity in contemporary capitalism that gives rise to states of exhaustion. In the twenty-first century, Iain Wilkinson argues that 'there is a renewed recognition of the extent to which social factors comprise physiological manifestations of exhaustion and distress' (p. 261). For Sighard Neckel and Greta Wagner, the authors of Chapter 13, '[exhaustion] represents the condensation of problems currently besetting the modern conduct of life' (p. 283) and explains the reason why it has more currency at the moment. Exhaustion is not simply an individual experience but a phenomenon that serves to represent current debates, as well as generate new ones. The social movement towards a 'Buddhist capitalism', as they call it, in which individuals develop mindfulness techniques which let them grow in the face of difficulties and embrace change, constitutes an example

of how social and individual problems epitomised by and articulated through exhaustion discourse can generate social changes and new forms of subjectivities.

Each of the chapters is too short to offer substantial analyses of the subject if taken individually. Those that deal with history are at times too broad and lacking in context (especially Chapters 2 and 3), without much archival research, and some authors occasionally make debatable affirmations. For example, in Chapter 5, Wilmar B. Schiufeli equates Shakespeare's use of 'burn'd out' in a sonnet with the 'process of energy exhaustion in relation to love' (p. 107), a complicated statement which over-simplifies the history of the concepts 'energy' and 'exhaustion', and their link to the industrial changes of the nineteenth century. This over-simplification can be understood given the fact that he is a sociologist, not a historian, but a suggestion for improvement would be to have included more historians amongst the authors of the book. Additionally, given the variety of interpretations of exhaustion, it would have been interesting to consider the extent to which it is a metaphor that goes beyond the human body; for instance, by considering issues of climate change and ecological sustainability (but perhaps this is a point for further research).

Burnout, Fatigue, Exhaustion is a book to be read from cover to cover: as a whole, it serves as a very useful and thought-provoking introduction to a complicated subject. Even though there are only a handful of chapters specifically dedicated to the history of exhaustion syndromes, those that deal with other topics still present useful approaches and raise questions that would be of interest to historians of medicine, particularly those in the field of medical humanities. The different parts speak to each other in a cohesive way that demonstrates the depth of the subject and shows the value of using interdisciplinary approaches to tackle its issues, resembling other publications in the fields of the history of pain and emotions that have called for such approaches, including the work of Joanna Bourke and Rob Boddice. Many of the chapters thread historical analyses of neurasthenia, burn-out and treatments like amphetamines with present-day narratives of exhaustion, demonstrating the uses of incorporating history into other disciplinary approaches. Politically charged and methodologically varied, *Burnout, Fatigue, Exhaustion* is a useful introduction and point of departure for thinking about an old problem that affects us in new ways.

Violeta Ruiz

The Autonomous University of Barcelona, Spain

doi:10.1017/mdh.2018.14

Elizabeth Neswald, David F. Smith and Ulrike Thoms *Setting Nutritional Standards: Theory, Policies, Practices* (Rochester, NY: University of Rochester Press, 2017), pp. vii+230, £80/£19.99, hardback/ebook/ebook for handhelds, ISBN: 9781580465762 / 9781782049197 / 9781782049296.

In 1995 Harmke Kamminga and Andrew Cunningham set off a new era in the history of nutrition science with their edited book, *The Science and Culture of Nutrition, 1840–1940* (Amsterdam: Rodope, 1995). The articles in that volume argued that, as a science, nutrition had to be read in its historical and cultural contexts. Elizabeth Neswald, David F. Smith, and Ulrike Thoms new book, based on a 2010 Brock University symposium, updates that argument looking specifically at the individuals, institutions, and politics of creating nutrition standards in Europe and the United States during the nineteenth and twentieth centuries.