

success in Europe. In this regard, Zampieri detects Morgagni's connection with ancient authorities, Hippocrates, Galen, Celsus, and Aretaeus of Cappadocia (p. 204), with early modern physicians, such as William Harvey and Théophile Bonet (p. 210), and then with early modern (natural) philosophers, such as Robert Boyle (pp. 228–30), and, in the case of Morgagni's understanding of causation, John Locke (p. 286). Within this complex matrix of references, *De sedibus et causis morborum* is revealed as an innovative work, in both its title (p. 234) and contents. Zampieri especially deals with the role of comparison in series (p. 238), the innovative uses of mechanical models in the discussion of diseases (p. 248), the observation of polyps in the heart, aneurisms and syphilis (p. 270), the definition of causation (pp. 281–3), and the limits to the uses of the microscope (p. 297). In the last subsection, Zampieri focuses on the role of conjectures and hypotheses developed by Morgagni. The latter's conception of reality is more undetermined than mechanists claimed (p. 320).

Nevertheless, Morgagni's position consists of a strong connection between mechanical and empirical approaches. Indeed, while he developed a conjectural or provisory mechanical approach, he related mechanical models to clinical and anatomical phenomena. Accordingly, a new methodological synthesis of true knowledge surfaced (p. 326). Yet, this is Zampieri's thesis: Morgagni's success resided in a fruitful methodological combination that has its origin in the work of Malpighi and Valsava, as well as in the exceptional condition of the study of medicine at Padua during the early modern period (pp. 349–90).

Zampieri's book, which is of paramount importance for both historians of medicine and physicians (p. 401), lays bare with rigour and exactitude a crucial juncture in early modern medical knowledge, which would otherwise be challenging to comprehend.

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Stephen T. Casper and **Delia Gavrus** (eds), *The History of the Brain and Mind Sciences: Technique, Technology, Therapy* (New York: University of Rochester Press, 2017), pp. i + 310, £95.00, hardback, ISBN: 9781580465953.

Stephen T. Casper and Delia Gavrus have two ambitions for their volume, *The History of the Brain and Mind Sciences: Technique, Technology, Therapy*. The first is to offer a critical reflection on how the mind and brain sciences have been shaped over the past two centuries by various medical concepts, practices and objects. What is most curious about the volume, however, is its second aim, for Casper and Gavrus hope that *The History of the Brain and Mind Sciences* becomes a 'sophisticated and versatile teaching tool for graduate and senior undergraduate seminars' (p. 1). Yet such an ambition feels too modest – unusual, even – for a collection that contains such high-quality, original contributions.

The first three chapters of *The History of the Brain and Mind Sciences* offer rich, generous commentaries on the place of technique, technology or therapy in the neurosciences. The first chapter, by L. Stephen Jacyna, focuses on the Menagerie in the Jardin des Plantes in post-revolutionary France, which was used as a site for the study of animals. Jacyna makes recourse to Foucault and Latour to outline the workings of the Menagerie's 'truth machine' – the actors and observational techniques that constituted animal behaviour as a focus of study (and which then worked to generate knowledge of animal intelligence and, later, human behaviour). The chapter following,

by Thomas Schlich, is as thorough as Jacyna's. It documents the movement of therapeutic practices from experimental physiology to neurosurgery, where Schlich – in a wide survey of North America and Europe – illuminates how physiological technique, with its associations with scientific 'objectivity', was utilised by neurosurgeons in the 1930s to establish medical authority. The third chapter, by Kenton Kroker, focuses on the epidemic of encephalitis lethargica at the turn of the twentieth century, locating it not only within neurology, but also within the paper-technologies used by the World Health Organization to quantify and track the growth of the epidemic. Kroker's is a fascinating and detailed account, and one of the real stand-out chapters in an already impressive volume.

It is to Casper and Gavrus' credit that such lengthy, lavishly detailed contributions feature in *The History of the Brain and Mind Sciences*. Yet the most novel aspect of the volume is the focus on the 'marginal' – that is, on episodes that feel trivial, irrelevant or divergent when viewed from the perspective of contemporary neuroscience, but through which, Casper and Gavrus suggest, historians can disrupt the teleologies underpinning established histories of neuroscience. Max Stadler's contribution is a case in point. Taking as his focus the neurophysiological study of nerve transmission in the interwar period, he enumerates the myriad sites through which knowledge was generated (implicating such non-neuroscientific objects as algae, whipped cream and radio transmitters). A history written from the perspective of present-day neuroscience would, Stadler argues, overlook this heterogeneity. A similar point is made by Delia Gavrus in her chapter on Edward Dockrill, a technician who worked under neurosurgeon Wilder Penfield. With close attention to Dockrill's unpublished novel – rejected by publishers for its thinly-veiled criticisms of Penfield – Gavrus seeks to give a voice to an individual deemed marginal, both because of the job Dockrill did (as a mere technician) but also because the histological research that he was engaged on yielded no therapeutic breakthrough.

Two further chapters continue this focus on the marginal in the history of the brain and mind sciences, albeit rather briefly. Frank W. Stahnisch's contribution explores the effects of technologies and techniques as they were transferred by emigrants from Europe to North America in the 1930s. Stahnisch indicates the ways in which photographs, data sets or instruments could be utilised by emigrants to claim new expertise. The chapter is at its strongest, though, and its most poignant, when documenting the difficulties neuroscientists faced when emigrating – ranging from the loss of a few prized research-notes or books (with a knock-on effect on research), to a loss of all scientific and worldly possessions. A greater focus on contingency, and on people less celebrated by modern-day neuroscience, teases out these stories. Elsewhere in *The History of the Brain and Mind Sciences*, Stephen T. Casper focuses on the 1951 Festival of Britain, a morale-boosting initiative sponsored by the government in the aftermath of the Second World War, in which science and medicine were given pride of place. Yet as Casper shows, despite scientists' intentions to produce a holistic view of nature, the structure and architecture of their exhibits unwittingly introduced a dualism between illusion and reality. Casper uses the episode to underline the ease with which such dualisms can enter scientific representations, firing a warning shot to contemporary neuroscientists who believe that such out-dated dichotomies could never enter scientific thinking again.

It is at this point that the focus on marginality appears to diminish, with the final three chapters of *The History of the Brain and Mind Sciences* returning to the study of technique, technology and therapy. Justin Garson examines how shifting research techniques meant that amphetamine psychosis, as opposed to LSD intoxication, became the model for schizophrenia by the 1970s. Garson accounts for this through a combination of medical and cultural shifts – the former a reframing of medical thinking to make psychosis and

schizophrenia comparable; the latter, a perception that amphetamine use was narcissistic and more associated with madness. Garson's chapter is meticulously researched, as with earlier contributions, and ends with a hypothesis on how the history of schizophrenia could be approached in future research. The chapter that follows Garson's continues the focus on schizophrenia, with a contribution by Brian P. Casey on the National Institute of Mental Health (NIMH) and schizophrenia in the decades after the Second World War. Casey successfully complicates the idea that schizophrenia became understood in biological terms through mere scientific enlightenment. Rather, he identifies the NIMH's rhetoric as important in reframing the disorder, arguing that a focus on it could prove illuminating for future studies.

The History of the Brain and Mind Sciences concludes with a brief coda by Katja Guenther which summarises the preceding chapters, offers some gnomic statements about the value of studying marginality (to avoid teleology, for example) and ends with an important albeit terse point about how history is a technique and one imbricated in the time-period in which it is written. Although beyond the scope of *The History of the Brain and Mind Sciences*, one suspects that historians of the neurosciences will return to Guenther's point in future publications – agitating, perhaps, for histories that not merely undermine teleological histories of neuroscience, but which also strive for a deeper, more creative engagement with our contemporary obsession with the neuro.

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Suzannah Biernoff, *Portraits of Violence: War and the Aesthetics of Disfigurement* (Ann Arbor, MI: University of Michigan Press, 2017), pp. viii + 213, \$70, hardback, ISBN: 9780472130290.

Fiona Reid, *Medicine in First World War Europe: Soldiers, Medics, Pacifists* (London: Bloomsbury Academic, 2017), pp. xi + 283, £19.99, paperback, ISBN: 9781472505927.

The face, Levinas wrote, invites us into a relationship with others. What happens to those who suffer from disfigurement in war? Are they spun off into an isolated space where interaction is no longer possible? Do they represent the horrors of war and the impossibility of using the word 'redemption' when speaking of the aftermath of war? Anyone interested in these matters should read Suzannah Biernoff's book. It is a sober challenge to those who tried to find any 'meaning' in war, let alone a 'redemptive' meaning in the suffering it brought about. In Biernoff's view, all their efforts foundered when confronted by the *Gueules cassées*, the men with broken faces.

A cultural history of the tortured face in and after war, her book makes us re-examine the term the 'gaze' used thoughtlessly all too frequently. When we look at disfigured men, do we look away? When they see us looking away, what relationship can we have with them? Her book is less about 'portraits of violence' than about the yawning gap between those who suffer and those who don't in the age of industrialised warfare. Violence has always existed, but assembly-line killing and mutilation on the scale of the Great War required a prior industrial revolution to equip the armies with weapons which devastated human bodies by the million. Perhaps her title would have been rendered better as *Portraits of Mutilation*, since what we see in renderings of these men is not violence but the ravages it causes.