

Weston argues that doctors were unable to establish a single explanation for sexual crime: sexual immaturity, childhood sexual development (based on Freud's theories), juvenile delinquency, personality disorders and sadism were some of the many possible causes cited in the medical literature. This multiplicity of causes in turn led to a variety of treatments, as Weston concludes, 'the desire to account for such a wide range of behaviour amongst so many different people and in so many different circumstances ensured that psychiatric theories and treatments both remained diverse' (p. 78).

The final two chapters (four and five), consider the relationship between law and medicine in the context of sexual offending, with Weston concluding (in chapter five) that while forensic psychology gained a significant foothold in the criminal law, in terms of actual practice and treatment, it had its limits. Thus, as the prison doctor John Landers noted in 1938, 'the psychological viewpoint was very helpful in understanding' criminal conduct, but 'was not equally helpful in suggesting a line of treatment' (p. 120).

To conclude, there is much of value here. One small criticism relates to the coverage of the introduction. While a section grapples with the inherent difficulty of terminology and language when referring to sexual offending, a discussion about the nature of the sources and the ethical issues encountering doctors' discussions of patients' lives would have been of some value here. Nevertheless, this is an important book that deserves to be widely read by historians of crime, law, medicine and sexology, and more broadly those interested in the social history of the twentieth century.

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A. Woods, M. C. Bresalier, A. M. Cassidy and R. Mason Dentinger (eds), *Animals and the Shaping of Modern Medicine: One Health and its Histories* (Manchester: Palgrave Macmillan, 2017), pp. xvii + 280, hardback/ebook, £20/open access, ISBN: 978-3-319-64337-3.

Coined as a scientific, interprofessional and political movement aiming at a better integration of human and animal medicine, 'One Health' has been fashionable since the 1990s. *One Health and its Histories*, a research project on the history of the movement, co-written by four historians, goes beyond this initial goal. The aim is to study how animals have shaped and have been shaped by the knowledge, practices and actors of human and animal medicine. The ambition is to advance a new research programme in the history of medicine. How does an interspecies approach to medical knowledge and interventions change our perspectives on what it means to be human or animal? The volume successfully answers this ambitious question with a series of case studies.

The introduction by Abigail Woods, renowned specialist in veterinary history, sets the epistemological and methodological framework for seeing animals as historical subjects. If works stemming from the 'Animal turn' and post-humanist writers are mentioned, the epistemological approach mainly follows the path of the history of the body and the actor-network theory (in its Material semiotics version). The works of Haraway and Mol provide the vocabulary of the volume, in the pursuit of *interferences* between knowledge and practices, the pursuit of where and when active animals are partners who 'make a difference'; how living and dead animals 'shape' the knowledge, the environment and the careers of those who study them. Animals play multiple

roles, sometimes simultaneously: victims of diseases, patients, pathological specimens, experimental material, model animals, producers of their environment, hosts and vectors of infections, nutritional source for humans, etc. At the same time, the archival challenge is to collect clues about animals. In the humanist tradition, the status of the sources on which historical writing is based is linked to the intentionality of the subject: a human privilege. Animals have no voice and their agency remains questionable in historical sources. But, as mentioned by Benson,¹ large parts of human history would have been left bare if historians had restricted themselves to the clues left intentionally. Why should it be any different for other species? Whether these animal traces can produce a relevant historical account can only be demonstrated by empirical investigation.

In the first chapter, Abigail Woods exposes how from the middle to the end of the nineteenth century, animals in the zoos, human medicine and zoological gardens were co-produced in Great Britain. The history of the bourgeois and colonial zoos has often been written; that of their residents rarely. Rather than veterinarians, doctors and surgeons dealt with the health and diseases of rhinos, elephants and monkeys, among others. They imported into zoos the tools and dominant trends of 'modern' medicine, from the public health movement to bedside medicine and clinical hospital medicine. This importation of human medicine into animal health is a two-way street: medicine becomes zoological when doctors study tuberculosis and rickets in their simian patients. In this comparative medicine, animal and human bodies and diseases provide knowledge on physio- and pathological processes equally.

On the threshold of the twentieth century, the Scottish sheep is at the crossroads of knowledge networks, as the next chapter shows. In a fascinating study, Abigail Woods describes how pasture sheep and their diseases move in a few decades from an object of investigation valued by an 'eclectic research network' knitting sheep with local doctors, farmers and natural history amateurs, to a 'capture' by some veterinary doctors pursuing institutional and professional aims in line with the rise of state funding for agricultural research.

In the third chapter, Michael Bresalier takes up the issue of international campaigns against hunger between the 1930s and the 1960s, a topic now largely covered by the historiography with the emergence of concerns over overpopulation and agricultural development. The role of livestock has remained largely invisible; although the threat to human health from animals' infectious diseases was well known, their beneficial role for health, through the nutritional intake of meat and milk, has seldom been considered.

Rachel Mason Dentinger's case study focuses on Calvin Schwabe, one of the most celebrated figures of the twenty-first century One Health movement. If Schwabe is best known for his later career as a veterinary epidemiologist at Davis University, Dentinger shows how this American parasitologist and veterinary doctor gained international fame between the 1950s and 1970s thanks to a parasite, the *Echinococcus granulosus*. The captivating investigation into Schwabe's surveys in Lebanon, Cyprus, Kenya and California allows her to describe how he came to consider the parasite as a key partner of complex biological and socio-cultural interactions (breeding practices, domestication, etc.), mixing dogs, hyenas and coyotes, farm animals, farmers and their children. Through these different roles, the parasite shaped its environment, the bodies of other great animals, and Schwabe's career.

¹ E. Benson, 'Animal writes: historiography, disciplinarity, and the animal trace', in Linda Kalof and Georgina Montgomery (eds), *Making Animal Meaning* (East Lansing, MI: Michigan State University Press, 2011), 3–16.

The last chapter delineates the emergence of the One Health movement in the twenty-first century, previously known as One medicine in the 1990s. Angela Cassidy focuses her work on deconstructing a heterogeneous One Health movement often represented as an umbrella. Depending on its promoters, the movement ranges from a version focusing on wildlife conservation to another focusing on zoonoses, while a third, more academic trend, studies 'health systems'. Overall, veterinarians take the lion's share of its scientific publications. But in the end, One Health grants a rather restrictive and conservative role to the animals it claims to defend. These are often limited to the usual and generic suspects, i.e. animals likely to infect their human cousins. Beyond the universalist claims of an integrative 'logic', One Health aims above all to respond to the expectations of arenas where global health policies are forged.

The annotated bibliography in the appendix provides a useful thematic list of references (unfortunately in English only) related to the history of medicine, where the multiple roles of animals have been considered by historians.

After previous academic calls for a history of interspecies medicine,² the book successfully moves on to empirical work. Rather than genealogical and human-centred, the authors defend a cautious writing of history, sensitive to the multiple roles that men and animals play, separately and together. The book recalls recently published interdisciplinary projects such as the one edited by Asdal, Druglito and Hinchliffe.³ It also echoes to the proposal of a new evolutionary history, further integrating history and biology. On the scale of atmospheric pollution or microbial resistance, transformations caused by the human species not only affect the environment but are now in us, humans, plants and animals.⁴

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² Robert G.W. Kirk and Michael Worboys, 'Medicine and species: one medicine, one history?', in Mark Jackson (ed.), *The Oxford Handbook of the History of Medicine* (Oxford: Oxford University Press, 2011), 561–77.

³ Kristin Asdal, Tone Druglito and Steve Hinchliffe (eds), *Humans, Animals and Biopolitics: The More-than-human Condition* (London: Routledge, 2016).

⁴ Edmund Russell, *Evolutionary History: Uniting History and Biology to Understand Life on Earth* (New York: Cambridge University Press, 2011).