

the Crisis of Extinction (*California, 2022*) and Evolution Made to Order: Plant Breeding and Technological Innovation in Twentieth-Century America (*Chicago, 2016*).

**Noortje Jacobs.** *Ethics by Committee: A History of Reasoning Together about Medicine, Science, Society, and the State.* 264 pp., illus., notes, bibl., index. Chicago/London: University of Chicago Press, 2022. \$35 (paper); ISBN 9780226819327. Cloth and e-book available.

In November 2018 the Chinese biophysicist He Jiankui announced on YouTube the birth of twin girls whose genomes he had edited with new CRISPR technology. The experiment provoked public outrage and was widely condemned as unethical. An investigation revealed not only that Jiankui and his colleagues had faked approval by an ethics committee but that the informed consent obtained from the girls' parents was invalid. An online statement published shortly afterward by the Director of the U.S. National Institutes of Health condemned Jiankui for flouting international ethical norms ("Statement on Claim of First Gene-Edited Babies by Chinese Researcher," NIH.gov, 2018). The response of the Chinese government was to announce the formation of a new committee that would advise the government on research ethics regulations (Hepeng Jia, "China Approves Ethics Advisory Group after CRISPR-Babies Scandal," *Nature*, 2019). Despite the fact that the existing system of research ethics committees had clearly failed to prevent this experiment from taking place, establishing and regulating medical ethics through expert committees is a globally established practice in science governance today. In *Ethics by Committee: A History of Reasoning Together about Medicine, Science, Society, and the State* the historian Noortje Jacobs charts the Dutch contribution to the emergence of our contemporary international regime of ethical regulation in which governmental committees have tried and often failed to regulate and implement ethical research reviews.

This is the first major scholarly work on the history of research ethics committees (RECs) in the Netherlands, and it is an important corrective to the dominant Anglo-American narrative. As is commonly acknowledged, the Dutch were the first to raise the issue of ethics reviews to the World Medical Association in the 1950s, but this was not a simple case of action by an ethically aware medical profession—these early reviews were envisaged as what Jacobs calls "epistemic filters" for monitoring the scientific quality of clinical research in the Netherlands. It should be noted, however, that this claim is not totally substantiated, mainly because *Ethics by Committee* is not a book about how RECs have done medical ethics in practice. Instead, it uses a thorough examination of archival sources from the Dutch Health Council and the Dutch parliament to showcase how discussions about the right way to govern medical ethics reviews unfolded in a series of governmental committees and parliamentary debates. What is most striking about this story is that, while the first governmental committee was established in the 1950s, it took over forty years and several further committees before legislation on human experimentation was finally passed in 1998. In the meantime, RECs and various other forms of ethical review had spread across the country's hospitals, in large part because of international pressures, such as requirements by American research funding agencies for ethics reviews. I counted at least thirteen different committees named in the book, and several more are referenced in passing, which makes the chronology and structure of the argument somewhat hard to follow at times—a simple timeline would certainly have helped. Nonetheless, Jacobs's skill as a writer is clear in her ability to guide the reader through the administrative labyrinth of late twentieth-century Dutch science governance while always relating this back to national debates in the medical and popular press.

The value of this study is no doubt primarily its local focus and examination of the particular context for the emergence of Dutch ethical review (or bioethics). There are nonetheless two general post-1945 transformations that set the context for the deliberations within the Dutch medical and political system: the rise of modern international medical research and the birth of the modern patient. The rise of RCTs

and a new vision of clinical science as built on statistical-empirical methods that yielded population-based results challenged the old idea of doctor–patient relations; the clinician was no longer a trusted individual who would do the patient no harm but, instead, a regulated expert who offered a standardized risk calculation. At the same time, the emergence of civil rights movements, mass consumerism, and national health insurance changed what it meant to be a patient. The modern patient was no longer happy to take whatever treatment was prescribed but was instead an active consumer of health care, with diverse beliefs and well-defined rights. In the new landscape of modern doctors and modern patients, the bioethicist emerged in the Dutch policy discourse of the 1990s as an objective mediator who could operate within the regulatory machinery of biomedicine while also representing the interests of the layperson. Jacobs cautions that despite the appearance of democratic governance, the agenda of medical ethics has by and large been set by experts from within the medical profession. The world we live in now, a world of medical ethics by committee, is a technocratic trade-off between scientific progress and patients’ rights, with the visions of participatory governance of the early postwar era firmly in the past.

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**Renny Thomas.** *Science and Religion in India: Beyond Disenchantment.* (Routledge Science and Religion.) 214 pp., illus., bibl., index. London: Routledge, 2022. £130 (cloth); ISBN 9781032073194. Paper and e-book available.

A recurring feature in the movies I saw growing up in India was the frequent invocation of faith by biomedical doctors with stethoscopes around their necks. “Now the ball is in the court of One-Who-Sits-High-Up,” the doctor would tell the anxious friends and family of the patient, often outside the operating room. In my teenage years I began to find this juxtaposition of modern science and faith quite comical. But there is indeed more to this than met my impatient eye. Renny Thomas’s important book, which is “an ethnographic study of ‘science and religion’ in India,” takes us right to the center of such juxtapositions. Thomas is clear at the outset that the book does not discuss “India as a special case, rather it intends to present a case study of universal science—a case of science and religion that has local inflections in India” (p. 1).

It is unsurprising that there are many scientists, in India and elsewhere, for whom religion and faith are important. What is of special interest to the scholar, however, is the ways in which religious ideas, symbols, and behaviors manifest in the professional lives and work of modern scientists and shape the structures and institutions of modern science. Thomas’s book delves into these themes primarily through an ethnography of a research lab in a major scientific research institution in Bengaluru, India. Additionally, he interviewed several scientists outside the lab and in other parts of India, as well as studying the public writings, including memoirs, of Indian scientists.

One of Thomas’s most significant arguments is that most scientists in India disavow a “disenchanted secular identity” (p. 78). What the book illuminates is the existence of a culture of science characterized by some major common features related to religion and caste. First, religious ideas and invocation of a god are an integral part of the professional lives of Indian scientists, irrespective of religion. There is a fascinating section in Chapter 2 in which Thomas shows how several students at the institute invoked and thanked God, under different names, in the acknowledgments sections of their doctoral theses. Second, the majority of scientists in India, including those Thomas interacted with, are Hindus from privileged-caste