

discussions in the classroom. Despite a somewhat unsatisfactory index, this will be a very useful book for adoption in courses in both history of science and medicine and bioethics.

The jacket of Paul Weindling's more ambitious book on the Nuremberg Doctors Trial and the origins of informed consent features the sole woman defendant prosecuted at Nuremberg. Herta Oberheuser received a sentence of twenty years (commuted to ten years) for her work as a camp physician at Ravensbrück. As Weindling, a prolific and well-respected author of earlier books on Nazi medicine, argues, women were actually underrepresented in the dock at Nuremberg, inasmuch as women made up nearly 20 percent of the doctors registered with the Reich Physicians Chamber. Gender is but one of the lenses through which Weindling views both the magnitude and the minutiae of the Nazi medical war crimes. *Nazi Medicine and the Nuremberg Trials: From Medical War Crimes to Informed Consent* is informed by his prodigious and far-reaching research and analysis. The transcript of the Nuremberg Medical Trial alone runs to some five thousand pages. In addition to the transcript, Weindling draws on sources usually overlooked and widely dispersed around the world—including the papers of Andrew Ivy, the medical expert for the prosecution, which are now housed in Laramie, Wyoming, and the papers of Leo Alexander, a psychiatrist who interviewed the defendants and informed the deliberations of the justices, which are located in North Carolina and New York—as well as relevant archival repositories in Washington, D.C., England, France, Germany, and the new nation-states of Eastern Europe. At least part of Weindling's remarkable scholarly energy is fueled by a desire to see reparations for those whose lives were irrevocably affected by the barbarous machinery of Nazi medicine. Some of these people, like those in the United States whose lives were adversely affected by coerced sterilization for eugenic purposes, remain alive, if not well, and the opportunity to compensate them in some small way for their suffering also remains. In many ways, Weindling's book is a chronicle of the roads not taken, the missed opportunities and willful ignorance about recording not just the names, the injuries, and the perpetrators of experiments, but, more broadly, the murderous politics of National Socialism and its obsession with ridding the national body of its infection by "lower races" and "lesser humans." The responsibility for such omissions and the apathy was and is shared by more than a few individuals, professions, and nations. The American and British biomedical re-

search establishment, as well as the German medical profession, saw little advantage in broadcasting the nature and extent of the Nazi medical experiments. Weindling's book, a tour de force that raises as many questions as it answers, sheds much light on these dark corners of world history and professional development.

SUSAN E. LEDERER

Michael Heazle. *Scientific Uncertainty and the Politics of Whaling.* xi + 260 pp., figs., app., bibl., index. Seattle/London: University of Washington Press, 2006. \$60 (cloth).

Peculiar features of oceanic circulation create massive seasonal concentrations of planktonic life in the cold waters of the Antarctic. For a very long time these resources annually fattened the planet's largest aggregation of its largest creatures, the so-called great whales (particularly the blues and fins), which arrived en masse from dispersed regions in warmer waters to take advantage of the fecundity of the short summer in the deep south, where they strained hectares of biomass out of the icy brine with their sieve-like mouths and laid in a year's worth of blubber. Different people have different ideas about the total numbers that once enjoyed this activity, but, depending on whom you ask and what species of whales you decide to include, the count can reach well into the millions. Back in those days there were whales pretty much everywhere in the world's oceans, of course, but the tight Antarctic summer concentration almost certainly accounted for more than half of the total whale population of the earth.

Beginning in the early twentieth century human beings got much better at reaching those animals in their difficult southern waters—and at killing them, which is not easy (nineteenth-century whalers rarely even tried to catch the really big whales, satisfying themselves with slower and smaller sperms, rights, and bowheads). A combination of mechanically powered vessels (steam first, eventually diesel) and explosive harpoons (a sort of twist on the sword-to-plowshares story) improved both access and lethality. The development, after World War I, of large vessels that could drag a 90-foot whale on deck in the high seas and boil it down to oil and meat meal (the former mostly used in margarine, the latter in animal feed) made this fast-growing industry fully pelagic and took the means of regulation out of the hands of any particular national government. It was, more or less, a free-for-all, a very lucrative free-for-all.

These seldom last: either they burn out in a

hurry or they come under the strictures of legal regulation. This one combined those fates, burning out slowly under the custodial care of an inadequate regulatory apparatus. Hopes had been for better: shortly after World War II, the intervention of a variety of interested parties (the Norwegians, who were the masters of the craft and hated to see anyone get too rough with their golden goose; the Americans, who had various ideas about conservation and sustainable yields—and could speak for the defeated Japanese; the British, who tended to treat the Antarctic like a remote part of their broader cultural patrimony) succeeded in formalizing an intergovernmental body known as the International Whaling Commission (IWC), which was charged to regulate whaling on the high seas. In practice this meant that it worried almost exclusively about the Antarctic. Good intentions (mostly) gave this organization to the world: a desire for a smooth commercial system, free from the boom-and-bust economic cycles of exploitative industries (call it a cartel, if you feel uncharitable); the ambition to arrange a hunting regime that could tap whale resources in perpetuity (a little like a guaranteed rate of return on a capital investment); a vision of a consensus-driven regulatory process, grounded on the best available scientific data (most of which would be, conveniently, provided by the industry).

The road to extinction is paved with good intentions: toothless, hamstrung by Cold War politics, a talking-shop, the IWC presided collegially over the slow erasure of a large percentage of the cetaceans in the southern oceans. By the early 1970s, when whales became a rallying point for an emerging global environmental movement, there were probably fewer than a thousand blues left in the Antarctic, where there had once been hundreds of thousands.

Michael Heazle, an Australian scholar of international relations, has written a scholarly book that takes up this story, with the expressed intention of investigating the role of science and scientific uncertainty in the regulatory arena. He is not a historian, and his treatment of the IWC as an institution during the second half of the twentieth century emerges mostly from the organization's published reports (supplemented with references to the proceedings of the annual meetings) and interviews with participants; diplomatic and personal archives do not play a significant role in this study. Heazle primarily addresses his analysis to those political scientists who are concerned with the role of "epistemic communities" (roughly, groups of experts) in policy making; broadly speaking, his book takes

aim at the intellectual coherence of the "precautionary principle" as a guideline for environmental policy.

I think Heazle would not identify himself as a practitioner of the sociology of scientific knowledge, but he has read his way through a considerable amount of postpositivist philosophy of science, out of which he concludes that "we cannot establish that science can directly describe or correspond with the 'real world'" (p. 32). It is therefore, in his view, hopeless to try to analyze decision making in the policy arena in terms of *the facts*, or *the truth*, since "scientific research . . . only represents the pursuit and justification of political goals, rather than a noble quest for truth" (p. 33). If you focus on utility, if you answer the *cui bono* question, you will be fine, since the rest of it is just rhetoric.

This position will not shock *Isis* readers, though it is handled here without a great deal of subtlety. Maybe this is all to the good, since it forces an important matter out into the open, stripped of any sophisticated finery.

In the end, however, it is difficult to call the investigation that proceeds from this theoretical posture a success. While it is true, as Heazle points out, that "scientific uncertainty" can cut both ways, politically speaking (at one time it was invoked to stall quota reductions; more recently it has served to stall a resumption of commercial whaling), it is also true that *what* can be said *when* (without getting laughed out of the room) changes over time. Or, to put it another way: groups of scientists do succeed, now and again (even pretty often), in presenting facts that change the shape of the regulatory arena. This is presumably an important thing to understand if you care about science and regulation, and it is going to take some more work than we get in this book. After all, if science is "just" rhetoric (which it probably isn't, but admittedly might as well be when it comes to a contested regulatory arena), it is a form of rhetoric whose greatest power lies in defining its findings as *beyond* rhetoric. Yes, science is "political" (in several senses), but the problems that are successfully defined as "scientific problems" at any given time are the ones that have been carefully extracted from the domain of politics-as-usual: they will be settled in laboratories, not legislatures; the boundary work is everything. Showing how all this unfolds in specific settings has been a very large part of the history of science in the last thirty years. Heazle does not engage with these complicated and rich issues. Since he has decided from the outset that science is "just" rhetoric, he takes seriously neither the produc-

tion of knowledge nor the process by which scientific claims achieve ascendancy in particular agonistic settings. Or, to be blunt, he seems interested neither in science *per se* nor in science *qua* rhetoric.

One can certainly learn things from *Scientific Uncertainty and the Politics of Whaling* about the history of whaling policy in the second half of the twentieth century, but the book is ultimately hobbled by its methodology, and it makes exasperating reading for a historian of science. I cannot really say how the book will be received among policy makers or political scientists; but if this is the way the history and sociology of science is going into other disciplinary arenas, there are reasons for concern.

D. GRAHAM BURNETT

Mark Jackson. *Allergy: The History of a Modern Malady*. 288 pp., illus., bibl., index. London: Reaktion Books, 2006. \$39.95 (cloth).

If you flip through any recent survey of the history of medicine looking for the term “allergy,” you’d be lucky to find even a passing reference to the topic. Mark Jackson’s book will change all that, for we now have a carefully plotted, well-researched, and engaging source on a seemingly ubiquitous health issue.

This change has been in the works for more than a decade. In the early 1990s, a handful of medical historians called for an analysis of immunological topics beyond those selected from that field’s self-image as the definitive interface between bacteriological research and medical practice (or, to borrow a provocative phrase from Anne-Marie Moulin, “the last language of medicine”). The language here is that of chronic diseases, which, as Jackson points out in his first chapter, have come to occupy progressively more of the historical imagination. While virology might be considered a bacteriological dialect, the allergy Jackson describes is a patois—an amalgam of lay and expert knowledge that is both distinctive and heterodox.

The language begins with the word. “Allergy” was coined by the Viennese pediatrician Clemens von Pirquet in 1906, but its meaning—“altered reactivity”—contained within it a challenge to the teleology inherent in medical reasoning. Immunity, von Pirquet argued, could both harm and heal, and “allergy” was a term that usefully grouped together immune responses wrongly thought to be in opposition. Though this challenge died with von Pirquet, the word acquired a life of its own, as its associated practices expanded into specialized medical clin-

ics in the United States and England (Ch. 3). Allergists were frequently derided by more orthodox practitioners for their lack of theoretical sophistication and standardized remedies, but the former group more than made up for this through professional organization, specialist journals, and popular appeal. By the 1940s, “allergy” could describe a psychological disinclination toward almost anything as much as it could account for an adverse response to grasses or pollens. This is no mere rhetorical flourish. Jackson takes seriously the question of how the spread of allergy was fueled in part by people’s willingness to adopt it as a kind of self-identity. Allergy was endowed, he suggests, with a “particular personality” that made it “an alluring and fashionable condition” (p. 16).

With allergists’ newfound professional leverage, a growing commercial interest in allergy’s increasingly diverse pharmacology, and an international body (the World Health Organisation) eager to identify emergent diseases in developing countries and export Western cures, allergy went global during the 1960s and 1970s. These changes, outlined in Chapters 4 and 5 and buttressed by archival material from the WHO, make for a particularly fascinating read. Historians of medicine and of science alike will appreciate Jackson’s analysis of how questions of standardization (framing types of hypersensitivity around the discovery of a new immunoglobulin, IgE), drug production and dissemination, concerns about increasing pollution and iatrogenic illness, the epidemiologic trend toward risk analysis, and growing bureaucratic networks combined to internationalize a Western phenomenon.

Allergy, Jackson concludes, is now everywhere. The book begins with a confessional (the author himself suffers from the condition) and ends with what I interpret as a twist on the familiar trope of degeneration, as environmental activists and clinicians alike increasingly decry the rise of allergy as a “disease of civilization.” Jackson is more sanguine. Where nineteenth-century anxieties surrounding degeneration were dominated by social and racial intolerance, Jackson sees the possibility that “unremitting exposure to the diverse biological and cultural manifestations of allergy” might generate the sort of “biological and psychological tolerance” (p. 220) to which René Dubos (of “think globally, act locally” fame) alluded when he depicted health as less a “birthright” and more a “creative way of life” and a dynamic engagement with one’s environment (p. 219).

My objections to *Allergy: The History of a*