

Crafting Immunity: Working Histories of Clinical Immunology

Kenton Kroker, Jennifer E. Keelan, and Pauline M. H. Mazumdar, eds.
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Crafting Immunity brings together a fascinating collection of medico-historical papers presented at a University of Toronto conference in June 2004. Complementing recent scholarship on immunology, including Mark Jackson's *Allergy: The History of a Modern Malady*, the collection traces related practices and theories from the natural history frameworks of the 18th century to the molecular models of the 20th century. The articles effectively destabilize conceptions of immunity to recover its convoluted historical trajectory and ongoing evolution. Although the authors explore the politics of medical innovation and the reciprocity between laboratory and clinic, their contributions unite in assessing the challenge of pinpointing the nature of immunity.

The volume is thoughtfully divided into four thematic sections and presented according to chronological relevance. Rusnock and Keelan open the first section by exploring 18th- and 19th-century paradigms of smallpox prophylaxis and the debates that emerged over efficacy and risk. Rusnock finds that natural history models of immunity informed Jenner's vaccine but that its acceptance was only assured through tests conducted at urban hospitals. Keelan's paper, which analyzes the vaccination debates in 1870s Montreal, reveals that a shared theoretical commitment to viral attenuation led supporters and detractors of the vaccine to reach an impasse. For these authors, nascent ideas of immunity fueled discordance and pressed practitioners to reassess assumptions.

In the second section, Jackson and Keirns uncover the origins of allergy and its intimate association with immunological advancement. Jackson's paper reveals that although allergists maintained a "zone of collaboration" with the laboratory in the early 20th century, they pursued a slightly divergent trajectory than immunologists because their practice remained rooted in clinical observations. Building on this contention, Keirns evaluates clinical responses to hay fever and asthma in Europe and North America. As theories of allergy were based on natural history and germ theory, she finds that practitioners logically turned to environmental manipulation and desensitizing immunizations. As allergists borrowed from the laboratory model to fix an understanding of immunity they also influenced its trajectory.

Critical assessments of the scientific methods to conceptualize immunity are offered by four scholars in the subsequent section. Investigating the development of animal models for human diseases in 1930s England, Bresalier contends that the susceptibility of ferrets to influenza combined with the adaptation of mice for antibody neutralization served to legitimize virology, establish new disease definitions, and bridge the laboratory and clinic. Kroker, Löwy, and Mazumdar respectively analyze the influence of the Pasteur Institute during the interwar years. Indeed, Kroker brings to light the work of *pasteurien* researcher Levaditi, whose use of older natural history methods led to a novel visual classification system of viral diseases. In complementary dialogue with Kroker, Löwy challenges the assumption of Institute backwardness; instead, she reasons that *pasteuriens* adapted both holism and reductionism to cope with unresolved immunological issues. Mazumdar concludes the section by demon-

strating that the Institute's commitment to *anatoxine* became a boundary for serologists at the League of Nations. These papers reveal that a range of animal models, semiotic representations, flexible philosophies, and politics informed the development of immune identities.

The final section comprising four papers traces how understandings of immunity were reshaped after World War II. The American government's effort to rationalize civilian atomic energy through radioimmunoassays leads Creager to conclude that it ushered in important immunological breakthroughs, particularly in diabetes research, but with a legacy of ethical issues and health risks. Building on the theme of medical innovation, Harden's account of 1980s AIDS research at US National Institutes of Health proves that new sequencing technology and a molecular model of immunology enabled researchers to overcome knowledge deficits and identify the causative agent. Moving to reproductive immunity, feminist scholar Howes takes exception to the dominant "foreign fetus" model by advocating a more nuanced "relational" approach that situates the maternal interface as inherently constructive rather than pathological. From theory to practice, Rutty traces the efforts of researchers at Connaught Laboratories to improve their smallpox vaccine and exceed international standards. These chapters affirm that while knowledge of immunity increases, the models themselves remain in flux.

Crafting Immunity is a welcome contribution to historiography offering many provocative insights. Keirns article, for instance, illustrates how geography can orient research agendas proving that place, as a concept, matters. Moreover, Bresalier and Mazumbar's instantiation of boundary objects provide a powerful methodological tool to frame the interactions between institutions, ideas, and people. Finally, Howes' assessment of maternal immunity discloses the consequences of gendered assumptions and the application of inappropriate models. For these reasons, this volume is not only recommended for historians but also medical researchers as they interact with current immunological models and explore new ones in the 21st century. As exemplified by the rising incidence of antibiotic resistance, food allergies, and HIV/AIDS, pinpointing the nature of immunity is ongoing and may be aided by a reassessment of its philosophical underpinnings.

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Unspeakable: Father-Daughter Incest in American History

Lynn Sacco

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Unspeakable is a book about how medical experts tried to account for an epidemic of venereal disease among young American girls without imputing their fathers. Reports of father-daughter incest were not uncommon in pre-1890s America, but they dramatically dropped off at the turn of the century. The key to understanding what changed, argues Sacco, is an abrupt turn-of-the-century reversal in medical views about the etiology of their infection. In this feminist and Foucauldian-inspired study, the experts, not those who lived through such experiences, are the protagonists.