

Book Reviews

A cumulative book review of:

Conis, E. *Vaccine Nation: America's Changing Relationship with Immunization*, Chicago: University of Chicago Press 2015. 361 pp \$18 (pbk) \$18 (ebk) ISBN 978-0-22637839-8

Reich, J.A. *Calling the Shots: Why Parents Reject Vaccines*, New York: New York University Press 2016. 336 pp \$75 (cloth) \$20.00 (pbk) ISBN 978-1-47981279-0

Holmberg, C., Blume, S. and Greenough, P.R. (eds) *The Politics of Vaccination: A Global History*, Manchester: Manchester University Press 2017. 360 pp £96 (cloth) £96 (ebk) ISBN 978-1-5261-1088-6

In recent years, the issue of compulsory and mass vaccinations has acquired increasing relevance in the public health field. Inquiries have been conducted from medical, epidemiological and healthcare perspectives, as well as in social, historical and anthropological sciences; the latter have empirically studied the multifaceted movement rather simplistically referred to as 'anti-vax'. Hence, they have brought to light a wide range of different attitudes, motivations and positions with regard to vaccinations.

The three volumes discussed in this review are written by scholars in the social sciences and humanities and offer a non-medical view on the phenomenon of immunisation. They are very different yet at the same time complementary books in terms of the disciplines they represent: Elena Conis is a historian of medicine and public health (with a BA in biology); Jennifer Reich is a sociologist; and the third volume is edited by Christine Holmberg (a healthcare anthropologist), Stuart Blume (a science sociologist with a Ph.D. in chemistry) and Paul Greenough (a historian of medicine).

Conis in *Vaccine Nation: America's Changing Relationship with Immunization* reconstructs the recent history of vaccinations in the US, starting from the *Vaccination Assistance Act* (1962) issued by President John F. Kennedy to make vaccination

against polio, diphtheria, tetanus and pertussis compulsory for children. Conis refreshingly claims that historically 'we have never vaccinated for strictly medical reasons. Vaccination was, and is, thoroughly infused with our politics, our social values, and our cultural norms' (p. 3). Drawing inspiration from Charles E. Rosenberg (a historian of medicine), Conis shows that 'vaccine may come to be seen as the remedy for a set of concerns not exclusively medical in nature' (p. 64). However, 'the rhetorical transformation of mumps into a serious disease of children was neither deliberately calculated nor entirely smooth' (p. 82). It occurred in 10 years, between 1968 and 1978, 'enabling the once mild and chucklesome infection to keep close company with long-dreaded diphtheria, smallpox, and polio' (p. 82). Also 'measles (chapter 2), chicken pox (chapter 6), hepatitis B (chapter 8), and human papillomavirus or HPV (chapter 10) were all framed very differently after their vaccines were introduced' (p. 10). The most striking case is that of hepatitis B, against which 92 per cent of US children were immunised in 2010. This disease is transmitted via sexual intercourse, or from mother to baby when born to infected mothers, or (very rarely) via blood transfusions. Hepatitis B was not ever considered a 'childhood' disease until 1981, when the discovery of an effective vaccine made it possible for health officials and healthcare providers to treat it like one.

In the US, opposition to vaccination policies was not voiced until the late 1970s, during the Carter administration. The author shows how the roots of this protest may be traced back to the American New Left, second-wave feminism and the environmentalist movement (pp. 10 and 107). In particular, 'a general disillusionment with the prescribing practices of doctors and growing doubt about the safety of commonly prescribed drugs influenced women's turn against widely prescribed minor tranquilizers (such as Valium) in the 1970s' (p. 114). People recalled the negative effects of other drugs that had been previously presented as safe and harmless: for example, *diethylstilbestrol*

or DES (given to pregnant women to reduce the risk of pregnancy complications but was shown to cause clear-cell carcinoma, a rare vaginal tumour, in girls and women exposed to this medication *in utero*); *thalidomide* (given to pregnant women for morning sickness but caused birth deformities); and *Vioxx* (an anti-inflammatory drug, withdrawn from the market due to an increased risk of cardiovascular complications such as heart attacks and strokes) (p. 233).

Reviewing various diseases and related vaccines, Conis offers a balanced and well-documented description of the main controversies that have marked US history over the last 50 years. She analyses a number of problems: from serious adverse reactions (acknowledged by several law courts – p. 234) to the fact that a percentage of the population is not immunised, despite having been vaccinated: ‘among the roughly 17,000 measles cases that had occurred between 1985 and 1988, 42 percent were in vaccinated people; in some school districts, measles outbreaks occurred even though 98 percent of the children were immunized’ (p. 190). This may have occurred for a number of reasons: because (i) some vaccinated people did not develop the required antibodies (referred to as non-responders, they make up between 5 per cent and 15 per cent of vaccinated patients, depending on the vaccine); (ii) some vaccines only cover some of many virus strains; (iii) the duration of some vaccination protections could be limited in time.

Conis contends that opposition to certain vaccination policies is a matter of prejudice or ideology only. For this purpose, she distinguishes between ‘sceptics’, i.e. those ‘accepting some vaccines and forgoing others they deemed too risky or just unnecessary’ (pp. 11, 145 and n. 31, 264), and actual anti-vaxxers, who constitute a minority (although the media frequently conflate the two groups). According to Conis, today’s ‘free-vaxxers’ (a group critical of contemporary vaccination policies) are an outgrowth of the social (feminist and environmentalist) movements that sprung up in the 1970s.

Reich (2016) provides a very different perspective in *Calling the Shots*. The book is based on empirical research conducted between 2007 and 2014 with oral interviews with 34 parents, as well as with free-vaxxers, paediatricians, lawyers, chiropractors, naturopathic doctors and lay healers from Colorado (pp. 4, 258, 266–7). The author acknowledges (pp. 5, 22, 256) having her three

children vaccinated, that her husband is a paediatrician, that her father-in-law is immunocompromised, and that several of her friends are HIV-positive. More than a self-disclosure, it seems an attempt to forestall possible criticism for having lent this movement a voice. The author hastens to distance herself from it, stating: ‘I am not neutral on whether vaccines are good or bad. I have opted to follow all mainstream medical recommendations (...) I trust that vaccines are mostly safe (...) I support policies that encourage efforts to broadly vaccinate the population and protect public health’ (p. 22).

After having listed the many reasons for choosing vaccination, Reich states that the reasons why certain parents express criticism, doubt or reluctance, are understandable, if largely ill-founded. They reflect the emergence of what she calls *individualist parenting* (pp. 5, 11–3): an ideology that leads parents to worry exclusively about their children’s health, while ignoring community obligation; like ‘free riders’, these people take advantage of the herd immunity achieved by pro-vaccine parents (p. 9). The ideology in question is based on a personalised, individualised, ‘have it your way’ kind of medicine, typical of consumer society (p. 19). Its success is perhaps reflected in the fact that the right to avoid some or all vaccinations for one’s children (for religious, philosophical or personal reasons) is now established in all American States (except West Virginia, Mississippi and California).

After an initial historical chapter on vaccination, the author provides an overview of the various motivations that are adduced by interviewees for not vaccinating their children. Firstly, these parents regard themselves as experts (ch. 2) and informed consumers capable of weighing the potential benefits of vaccines and the risks entailed to their own family health history, as well as the chances that their children might contract the disease. They believe that infants (who do not have a fully developed immune system) are vulnerable to the excessive antigenic load of vaccines, which ought to be postponed by 3 years; and that each child is unique and needs an individualised vaccination plan. Almost all of the 34 parents interviewed have a high level of education. Secondly (ch. 3), these parents prefer natural forms of immunisation (for diseases such as measles, rubella, chickenpox, scarlet fever, mumps and pertussis), achieved by contracting the virus in its ‘wild’ form. They maintain that vaccinations alter the immune system,

interfering with the physiology of the thymus (an organ which in the first 3 years of a child's life is responsible of the development of the immune system). They favour a healthy diet and breastfeeding as ways to promote a healthy immune system in infants. Furthermore, they argue that non-vaccinated children are healthier than vaccinated ones and rarely suffer from allergies, asthma, autism and Attention deficit hyperactivity disorder/hyperactivity. Where views differ the most is in relation to the way diseases are conceived: for vaccinists diseases are a negative thing and to avoid getting ill is the priority; for free-vaxxers, instead, certain diseases should not be demonised, as they significantly contribute to the healthy development of children and the priority is to attain natural immunisation.

The third chapter discusses the interviewees' reservations with regard to the pharmaceutical industry: a lack of trust due to the fact that it has often been at the centre of scandals; the unexpected collateral damage caused by some drugs; and the alleged toxicity of vaccines, suggested by the presence of heavy metal adjuvants. Finally (p. 259), the author classifies critical parents into five groups: (i) those who will consider whether to have their children vaccinated or not as the occasion arises; (ii) those who have some of their children vaccinated but not others; (iii) those who reject all forms of vaccination; (iv) those who only accept some vaccines; and (v) those who develop a personalised vaccination plan. However, there is not a latent coherent model capable of distinguishing parents who completely reject vaccination from other parents; rather, Reich suggests a degree of continuity across the five categories. The book ends with seven recommendations for 'public health agencies and paediatric providers [who] can build greater trust in vaccine safety and claims of necessity' (p. 239). These recommendations include promoting the social, not only individual, benefits of vaccines; embracing uncertainty about vaccines; being transparent about how they are developed and funded; increasing trust in their regulation; eradicating the culture of blaming mothers for refusing vaccines; and ensuring the concept of herd immunity is understood. Reich thinks that these seven recommendations might serve as the cornerstone of a strategy aimed at winning over the 20 per cent of parents who still question vaccination policies.

The third text in question is a volume edited by Holmberg, Blume and Greenough entitled *The*

Politics of Vaccination: A Global History (2017). It brings together 12 contributions by 15 scholars (many historians of medicine, in addition to anthropologists, philosophers and sociologists) who have been focusing on vaccination policies in their home countries (Pakistan, India, Eastern Europe, South Korea, Mexico, Holland, Brazil, Japan, Great Britain, Sweden and Nigeria).

Three key themes emerge: (i) vaccination and national identities; (ii) nationality, vaccine production and the end of manufacturing sovereignty; and (iii) vaccination, individuals and society. The authors are keen to point out that their critical approach to vaccination policies does not imply any attempt to deny the benefits provided by vaccines or the fact that they have saved millions of lives (p. 6). The authors only wish to highlight that 'mass immunization should not be considered a neutral practice' (p. 2), but it must be interpreted in relation to the main political phenomena that have marked the past century and to which they are connected (nationalism, colonialism, decolonisation, the Cold War and neoliberalism). For example, mention is made of Gandhi (pp. 57 ff.), who staunchly opposed vaccination and promoted naturopathy, hygiene and sanitisation as an alternative. For this purpose, the book collects 'a solid body of literature that links the 19th-century advent of public health immunization to the consolidation and emergence of nation-states' (p. 3). One example of this is the emergence of smallpox vaccination in the early 1800s which served to demonstrate the willingness of small, newly formed German states to protect their citizens.

Chapters 9, 10 and 11 are of particular interest, devoted to more contemporary practices. In particular, they point out that some countries have experienced loss of national health sovereignty, due to the decision to end the domestic production of vaccines, thereby making the countries dependant on foreign pharmaceutical corporations. This, the authors note, turned a public resource (vaccines) into a commodity: 'a downward spiral and loss of public-sector manufacturing capacity as autonomous production gave way in the face of free market ideology' (p. 10).

This edited book is particularly interesting because it offers an international view of immunisation policies across the globe, showing the differences among countries as well as the local interplay between local issues and global needs; a 'glocalization' of vaccination policies, if you will. Whilst the book sometimes lacks attention to the

most recent changes in health policy, the great value of this volume is in its historical perspective.

The three books illustrate that, whereas vaccines might be a medical-pharmacological issue, vaccinations are a political, economic and social matter. They link immunisation policies to the specific cultural, political and social factors that drive them. In particular, Conis and Holmberg, Blume and Greenough are both remarkably successful in documenting how even the (apparently) most technical, medical and expert-intensive policies are embedded in features which are primarily social. In addition, these two books show how even small artefacts like vaccines can produce structural changes in society, resembling the ‘actor-network theory’ (Latour 1987) which would present the vaccine as an actant, as something capable of agency. Thirdly, these authors differentiate from a purely medical-dependent narrative, with which Reich’s book seems to remain too much entangled, accepting uncritically the received view of vaccination. Despite their different sensitivities and theoretical perspectives, these three books are very useful to scientists and practitioners who want to understand the apparent incomprehensibility of the opposition to mandatory and mass vaccinations, the role of immunisations in contemporary society and the interplay of medicine, politics, economics, culture and society.

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Reference

Latour, B. (1987) *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge: Harvard University Press.

Hausman, B.L. *Anti/Vax: Reframing the Vaccination Controversy*, Ithaca and London: ILR Press, an Imprint of Cornell University Press. 2019. 275pp \$29.95 (hard), \$14.95 (ebk) ISBN 978-1-5017-3562-2

In 2019, the World Health Organization declared vaccine ‘hesitancy’ as one of the greatest threats to global public health, alongside climate change and antimicrobial resistance. Non-vaccination is a

major public (health) anxiety because it has led to a resurgence of measles outbreaks, particularly in high-income countries. Lawmakers have consequently re-written and enforced mandates, indicating how parents are not trusted to make ‘rationale’ and ‘responsible’ child health decisions. This backdrop gets to the heart of Bernice Hausman’s stellar book, *anti/vax*, which takes ‘medical controversies in the public sphere as social controversies’ (p. 2). For Hausman, ‘a social controversy is something that must be addressed by social means [...] it cannot be addressed by scientific or biomedical data dumped into the public sphere – it represents a problem *in society* that requires a social solution’ (p. 2). Amidst recent inflammatory media coverage and legal interventionism, Hausman courageously attempts to reconcile opposing – seemingly binary – voices on vaccinations.

The interdisciplinary approach of the book makes it a strong and timely contribution to the medical humanities, especially as the majority of chapters are based on analysis of published books and articles, media and literary cultures. The book is punctuated with interview data collected by the Vaccination Research Group at Penn State University, which Hausman leads. Whilst this strand of the book more directly speaks to sociologists and anthropologists, it feels like a more marginal part of the book’s methodology. So whilst the theoretical approach and laudable aims of the book can inspire questions beyond Hausman’s disciplinary framework, the book’s methodology will depart from the practices of sociologists of health and illness (a point I return to later in the review).

The historical framing of vaccinations (Chapter 1) makes clear that ‘there never was a golden age of vaccine acceptance’ (p. 16). Hausman traces the development of vaccines and associated concerns that have arisen in the United States, particularly since the 1980s, offering a useful narrative chronology for readers unfamiliar with the context but interested in prevailing issue of vaccine hesitancy. This backdrop introduces *how* vaccinations became a product of inflammatory media coverage and commentary (Chapter 2), tar- raring parents opposed to vaccinations as ‘irresponsible’ – in ways that are unhelpful and conducive to developing positive vaccine relationships. Hausman’s analysis extends to prominent nonfiction books on vaccine hesitancy that are written for the general public (Chapters 3 and 4), and she critiques how mistrust of vaccinations reflect broader questions of public trust of government