

Vaccines and Vaccinations:

Just a Medical Issue?

Conis, E. *Vaccine Nation. America's Changing Relationship with Immunization*, Chicago: University of Chicago Press, 2015. 361pp \$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. 336pp \$75 (cloth) \$20.00 (pbk) ISBN 978-1-47981279-0

Holmberg, Christine, Blume, Stuart and Greenough, Paul R. (eds.) *The politics of vaccination. A global history*, Manchester: Manchester University Press, 2017. 360pp £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. However, the debate has chiefly been approached from a medical, epidemiological and healthcare perspective. Less room has been given to social, historical and anthropological sciences, which have empirically studied the multifaceted movement rather simplistically referred to as “anti-vax”. This research has brought to light a wide range of different attitudes, motivations and positions with regard to vaccinations that are easier to interpret by placing them within a continuum ranging from the unconditional acceptance of vaccinations (both compulsory and recommended) to their complete and radical rejection. Unfortunately, an even and balanced treatment of the topic still seems like a distant goal today, and this hampers not just public debate but also the attempt to provide an unbiased sociological analysis. A political scientist wishing to discuss recent electoral results will never start by saying whom he or she has voted for. A researcher is never expected to ‘come out’ about his or her own behaviour in relation to the topic under discussion. By contrast, when it comes to vaccinations, especially if the researcher is not a physician, it is almost compulsory to begin with the words “Let me start by saying”, followed

either by “that I have had my children vaccinated” or “that I am in favour of vaccination”. Regrettably, this need to express unconditional trust in the positive value of vaccination extends to both journalists and social scientists (such as Jennifer Reich), who – by their very profession – ought to be free and unprejudiced in their analyses.

The three volumes reviewed here leave open the possibility for a humanities scholar to express a non-medical point of view on the phenomenon of immunisation. These 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 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 claims (surprisingly for a physician) 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). If Conis subscribed to the *actor-network theory*, she would present vaccines as an actant, as something capable of agency. Be that as it may, the author avoids both a banal conspiracist reading and the (opposite, yet equally banal) pitfall of unquestioning naivete: “the rhetorical transformation of mumps into a serious disease of children was neither deliberately calculated nor entirely smooth” (p. 82). This occurred in ten 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 papillomavirus o 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% of US children were immunised in 2010. This disease is transmitted via sexual intercourse and (very rarely) via blood transfusions. Hepatitis B “wasn’t ever considered a ‘childhood’ disease but the presence of an effective vaccine [in 1981] made it possible for health officials and health care providers to treat it like one” (p. 201). In various press and television interviews even Albert Sabin – the doctor and virologist who developed one of the two polio vaccines – voiced reservations with regard to certain vaccines, such as flu vaccines, and certain vaccination policies, such as the choice of making hep-B vaccines compulsory.

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 presented as safe and harmless: diethylstilbestrol, thalidomide, Vioxx, Heparin, Tylenol and so on (p. 233).

Reviewing various diseases and related vaccines, the author offers a balanced and well-documented description of the main controversies that have marked US history over the last fifty 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. This occurs for a number of reasons: 1) because these people have not developed the required antibodies (referred to as non-responders, they make up between 5% and 15% of vaccinated patients, depending on the vaccine); 2) because the duration of the vaccination protection is limited in time (to a few years), so that the number of antibodies drops; 3) because the degree of protection ensured by an attenuated virus (that of the vaccines) is lower than that provided by the wild virus (which is perpetual); 4) because the vaccine only covers some of the many virus strains. As a result, “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).

The author contends that opposition to certain vaccination policies is not a matter of prejudice or ideology. 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' analysis, then, today's free-vaxxers are an outgrowth of the social (feminist and environmentalist) movements that sprung up in the 1970s.

A very different perspective is provided by Reich's book: an empirical investigation conducted between 2007 and 2014 with oral interviews with 34 parents, as well as with free-waxxers paediatricians, lawyers, chiropractors, naturopathic doctors, and lay healers from Colorado (pp. 4, 258, 266-7). Reich has also attended meetings of their associations and followed informal conversations between their members (although it seems a bit of an exaggeration to call these “ethnographical observations”, as she does – pp. 263-4). Finally, the author informs us (pp. 5, 22, 256) that she has had 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, by 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). This almost reads like a loyalty oath. But was there really any need for it?

At the beginning, the author lists the many reasons for choosing vaccination. These are all well-known and oft-repeated reasons – there is nothing specifically sociological here. According to Reich, the reasons why certain parents express criticism, doubt or reluctance are understandable, if largely ill-founded. But they also 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). With a certain degree of success, it has also imposed the right to avoid some or all vaccinations for one's children (for religious, philosophical or personal reasons) 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 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, which ought to be postponed by three 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 three 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 ADHD (Attention deficit hyperactivity disorder/hyperactivity). Where views differ the most it 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: 1) those who will consider whether to have their children vaccinated or not as the occasion arises; 2) those who have some of their children vaccinated but not others; 3) those who reject all forms of vaccination; 4) those who only accept some vaccines; and 5) those who develop a personalised vaccination plan. However, there is not an 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 five interesting recommendations (pp. 239-52) that might serve as the cornerstone of a strategy aimed at winning over the 20% of parents who still question vaccination policies.

The volume edited by Holmberg, Blume and Greenough 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). It is impossible to provide a complete overview of the volume in just a few lines. However, three key themes emerge: 1) vaccination and national identities; 2) nationality, vaccine production, and the end of manufacturing sovereignty; and 3) 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 vaccination policies are not a neutral practice, but rather one that 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.

To mention only one theme among the many of the book, it is interesting to note how loss of national sovereignty in many States *also* entailed the decision to bring an end to the domestic production of vaccines, thereby making the countries dependant on foreign pharmaceutical corporations, turning a public resource (vaccines) into a commodity. Therefore, whereas vaccines might be a medical-pharmacological issue, vaccinations are a political, economic and social matter.

The “hot” topic of vaccination shows that the historian's work is (relatively) easier: by turning to the past, the historian can address thorny issues more freely, without the risk of coming across as someone who is putting public health at risk. By contrast, the analyses of scholars exploring contemporary phenomena are bound to enter the arena of contemporary public debate, with all the consequences this entails. The sociologist's task is not to judge who is right, but only to clarify the reasons adduced by opposing parties. It is difficult to understand, therefore, why communication scholars such as Graham N. Dixon, Christopher E. Clarke, Sander L. van der Linden and Edward W. Maibach feel the need to state that people critical of vaccination are mistaken and endorse unfounded theories; or why they suggest the media not give these views any voice, for this might... confuse people. With baffling scholarly naiveté, they argue that the media only ought to report views that are safely established according to science. Yet, Popper has taught us that if there is any certainty in science, it is that there are no certainties.

What the great sociologists have done, instead, is analyse topics on which, at their time, there appeared to be nothing interesting to say: Durkheim did so with suicide, Weber with religion, the Chicago School with deviance, Latour with science etc. The lesson to be learnt here is that, as far as sociological analysis is concerned, there aren't any taboo topics.

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