

The conceptualization of vaccination refusals: between science denial and violation of rational choice

Vaccination programmes have been acknowledged as the greatest public health achievement of the last decades. Therefore, it may be surprising that growing number of people are opting not to vaccinate their children (Omer 2012).¹ On the one hand, vaccination refusals seem to be clear examples of science denial that may result, among others reasons, from exposure to scientific fraud (an infamous report linking the measles vaccine to autism, later retracted). On the other hand, some countries (e.g. the US and Australia) offer non-medical exemptions from mandatory vaccination. It is surprising, because these kinds of exceptions are usually limited to value disagreements, but are not accepted in cases of science denial (e.g. objections to teaching evolution in schools). Moreover, reputable journals in medicine, bioethics or social science publish papers defending parental “conscientious objection” to mandatory vaccination programmes (Salmon 2006; Navin, Largent 2017). In my presentation I show there are no good reasons to assume that anyone should be allowed to refuse “to vaccinate their dependants on conscientious grounds” (Clarke et al. 2017).

First, I want to analyze a suitable ethical framework for mandatory vaccination of children or specific populations (e.g. health care personnel): public health ethics (that implies a consequentialist approach) versus traditional bioethics (that concentrates on autonomous consent and individual risk-benefit ratio).

Second, I want to discuss vaccination refusals in the context of philosophical (or legal) theories of responsibility of those who opt out for harms to others, including: i) collective action problem (e.g. few persons being unvaccinated, where herd immunity is achieved, are very unlikely to cause harm); ii) responsibility for imposing mere risks of harm to others (Jamrozik et al. 2016).

Third, I want to analyze explanations of vaccination refusal (see systematic reviews: Mills et al. 2005; Wang et al. 2014).

i) Free-riding without rejecting scientific consensus. Some individuals may be pro vaccination in general, but prefer to keep children unvaccinated as long as enough others are vaccinated and risks have largely been eliminated. I will show that even if someone agrees that free-riding is not always

¹ E.g., in Poland in 2009 there were about 3,000 refusals of mandatory vaccinations of children; in 2015 - 17,000.

objectionable (Dare 1998), it would be hard to establish the content of beliefs about vaccination refusal (cf. Jamrozik 2017).

ii) Religious reasons. Despite of the fact that no major organized religion prohibits vaccination (Grabenstein 2013), some Catholics have questioned some vaccines as “morally illicit” (Carson, Flood 2017), because they were developed in cell cultures derived from tissue originally taken from an aborted fetus (WI-38; MRC-5). The Catholic teaching permits parents to use a vaccine despite its “illicit origin” (CDF 2008), although every act of vaccination is “a form of *very remote mediate material cooperation*” (PAL 2006) with the evil. Both documents underline that parents “should take recourse... to the use of conscientious objection with regard to the use of vaccines produced by means of cell lines of aborted human fetal origin” (PAL 2006). But in this context “conscientious objection” does not mean vaccination refusal, but only a symbolic act (e.g. signing a petition).

iii) A mistrust concerning the necessity, safety, and efficacy of vaccines. Some people may disagree about the authority of science, and some individuals reject only the orthodox account of the risks and benefits of immunization. But these views are clearly related to the different biases that make pro-vaccination beliefs more counter-intuitive, and anti-vaccination beliefs – more intuitive, especially once vaccinations have made some diseases rare (Miton, Mercier 2015). For example: omission bias (Wroe et al. 2005); in-group favoritism (Kahan et al. 2010); identified victim effect (Hare 2012).

References

- Brennan J. (2016). A libertarian case for mandatory vaccination. *Journal of Medical Ethics*, Online First, doi:10.1136/medethics-2016-103486.
- Brown K.F. (2010). Omission bias and vaccine rejection by parents of healthy children: Implications for the influenza A/H1N1 vaccination programme. *Vaccine* 28:4181–4185.
- Carson P.J., Flood A.T. (2017). Catholic Social Teaching and the Duty to Vaccinate. *American Journal of Bioethics* 17(4):36-43.
- Clarke S., Giubilini A., Walker M.J. (2017). Conscientious Objection to Vaccination. *Bioethics* 31(3):155–161.
- Congregation for the Doctrine of the Faith (CDF) (2008). Instruction Dignitas Personae On Certain Bioethical Questions. Retrieved 11.04.2017 from: http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_20081208_dignitas-personae_en.html
- Dare T. (1998). Mass Immunization Programmes: Some Philosophical Issues. *Bioethics* 12(2):125-149.
- Flanigan J. (2014). A Defense of Compulsory Vaccination, *HEC Forum* 26: 5-25.
- Grabenstein J.D. (2013). What the World’s religions teach, applied to vaccines and immune globulins, *Vaccine* 31:2011-2023.
- Hare C. (2012). Obligations to Merely Statistical People. *Journal of Philosophy* 109(5/6):378-90.
- Jamrozik E., Handfield T., Selgelid M.J. (2016). Victims, vectors and villains: are those who opt out of vaccination morally responsible for the deaths of others? *Journal of Medical Ethics* 42:762-768.
- Kahan D.M., Braman D., Cohen G.L., Gastil J., Slovic P. (2010). Who Fears the HPV Vaccine, Who Doesn’t, and Why? An Experimental Study of the Mechanisms of Cultural Cognition. *Law and Human Behavior* 34(6):501–516.
- Mills E., Jadad A.R., Ross C., Wilson K. (2005). Systematic Review of Qualitative Studies Exploring Parental Beliefs and Attitudes Toward Childhood Vaccination Identifies Common Barriers to Vaccination. *Journal of Clinical Epidemiology* 58:1081–1088.
- Miton H., Mercier H. (2015). Cognitive Obstacles to Pro-Vaccination Beliefs. *Trends in Cognitive Sciences* 19(11):633-636.
- Navin M.C., Largent M.A. (2017). Improving Nonmedical Vaccine Exemption Policies: Three Case Studies. *Public Health Ethics*, published online: 14 February 2017, doi:10.1093/phe/phw047
- Omer S.B., Richards J.L., Ward M., Bednarczyk R.A. (2012). Vaccination Policies and Rates of Exemption from Immunization, 2005–2011. *The New England Journal of Medicine* 367(12): 1170-1171.
- Pontifical Academy for Life (PAL) (2006). Moral reflections on vaccines prepared from cells derived from aborted human fetuses. *National Catholics Bioethics Quarterly* 6(3):541-550.
- Wang E., Clymer J., Davis-Hayes C., Buttenheim A. (2014). Nonmedical Exemptions From School Immunization Requirements: A Systematic Review. *American Journal of Public Health* 104(11):e62–e84.
- Wroe A.L., Bhan A., Salkovskis P., Bedford H. (2005). Feeling Bad About Immunising Our Children. *Vaccine* 23:1428–1433.