

Pandemic Science, Public Health, and Eucharistic Theology:

Seeking Grounds for Dialogue

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When I first read the text from the recent communique from the Ecumenical Patriarchate regarding the mode of distribution of Holy Communion, I was saddened to read the surprisingly and, to my understanding of Orthodox theology, uncharacteristically cataphatic statement that “it is impossible that through this Mystery of Mysteries any disease might be communicated to those who partake.”¹ I was saddened because, if I understood statement correctly, grounds for dialogue between scientists and the Holy Synod appeared to have been foreclosed.

Epistemological grounds for dialogue

As an Orthodox Christian, I understand my faith to be supralogical, but it cannot be illogical. In that spirit, I propose three epistemological axioms as common ground for dialogue between science and theology. The first axiom I would propose is that “truth is one.” We should be able to agree to a formulation of the Aristotelian *principle of noncontradiction* that it cannot be both true and false that through reception of the Holy Gifts a biological harm could be communicated to the recipient.^{2,3} The second axiom is that absence of evidence of a causal

¹ *Ecumenical Patriarchate Communiqué* (Geneva: Chief Secretariat of the Holy Synod of the Ecumenical Patriarchate, 2020), <https://www.goarch.org/-/ecumenical-patriarchate-communique>.

² *The Stanford Encyclopedia of Philosophy*, s.v. "Aristotle on Non-Contradiction," <https://plato.stanford.edu/archives/spr2019/entries/aristotle-noncontradiction/>.

³ The opposite of the doctrine of the unity of truth is known as *veritas duplex* (double truth), a doctrine associated with Latin Averroism. Gyula Klima, "Ancilla Theologiae Vs. Domina Philosophorum: St. Thomas Aquinas, Latin Averroism and the Autonomy of Philosophy," Fordham University, accessed Aug 5, 2020, <https://faculty.fordham.edu/klima/ANCILLA.HTM>, John Marenbon, *Latin Averroism, Islamic Crosspollinations. Interactions in the Medieval Middle East* (Exeter: Gibb Memorial Trust, 2007).

association is not evidence of absence of such an association.⁴ Because a transmission event of Ebola virus or coronavirus or hepatitis A through contamination of the Holy Gifts has not been proven does not mean that such transmission is impossible. To believe otherwise is an example of the *appeal to ignorance fallacy*.⁵ The third axiom is related to the first two: demonstration of a validated exception to an absolute assertion disproves the absolute nature of the assertion.⁶ Two such empirical demonstrations of communication of disease, defined as biological harm, through reception of the Eucharist are: (1) gluten sensitive enteropathy and consumption of Eucharistic bread containing wheat gluten;⁷ and (2) serious toxic reactions to the consumption of Eucharistic wine by clergy who are concurrently taking disulfiram (Antabuse) or the antibiotic metronidazole.⁸

Concept of Disease

I do not know in what sense the Holy Synod understands the term disease and the communication thereof. In medicine, however, it is much easier for a physician to recognize a

⁴ P. Alderson, "Absence of Evidence Is Not Evidence of Absence," *BMJ* 328, no. 7438 (Feb 28 2004), <https://dx.doi.org/10.1136/bmj.328.7438.476>.

⁵ Robert Arp, Steven Barbone, and Michael Bruce, *Bad Arguments : 100 of the Most Important Fallacies in Western Philosophy* (Hoboken, NJ: Wiley Blackwell,, 2019), 106-11, <http://dx.doi.org/10.1002/9781119165811>.

⁶ This is Karl Popper's principle of falsification. "But if the decision is negative, or in other words, if the conclusions have been falsified, then their falsification also falsifies the theory from which they were logically deduced." Karl R. Popper, *The Logic of Scientific Discovery* (London ; New York: Routledge, 1992), 10.

⁷ "Holy Communion Wafers and Celiac Disease," *New England Journal of Medicine* 321, no. 5 (1989), <https://dx.doi.org/10.1056/nejm198908033210518>, E. Guiraldes, and C. Gutierrez, "Coeliac Disease and Holy Communion," *Lancet* 1, no. 8575-6 (Jan 2-9 1988), [https://dx.doi.org/10.1016/s0140-6736\(88\)91036-7](https://dx.doi.org/10.1016/s0140-6736(88)91036-7).

⁸ Trevor Kitson, "Exorcising the Demon Drink," *New Scientist* 79, no. 1112 (July 20, 1978 1978), https://books.google.com/books?id=FhVrubXc7T0C&pg=PA195&lpg=PA195&dq=disulfiram+reactions+to+communion+wine&source=bl&ots=8bCMeXk88M&sig=ACfU3U2_YYQtUGfx_e81vPXSvYdpmWXqqQ&hl=en&sa=X&ved=2ahUKEwjVwvSFz_3qAhX-IzQIHWqvBG4Q6AEwDnoECAgQAQ#v=onepage&q=disulfiram%20reactions%20to%20communion%20wine&f=false.

disease than to define it. In the philosophy of medicine, disease is a disputed concept. Leading definitions have been categorized as naturalistic, normative, and hybrid. Among the more prominent recent formulations is that of Jerome Wakefield who defined disease as a harmful dysfunction meeting two criteria: (1) failure or dysfunction of an organ or body part to meet its evolutionarily determined function; and (2) the failure or dysfunction causes a social harm.⁹ However this definition does not take into account several critical features of both infectious diseases and chronic diseases: (1) the existence of often prolonged pre-clinical or subclinical disease states, during which damage is accruing; and (2) the existence of asymptomatic but transmissible infection that may harm others.

Disease occurrence is probabilistic

It is important to understand that the occurrence a disease is rarely if ever deterministic. For a deterministically caused disease, if the necessary and sufficient exposures are present, the disease will occur. The classically cited example of such a disease is rabies for which it is virtually guaranteed that exposure leads to disease. But for most diseases, including COVID-19 and AIDS, we understand that exposure to the pathogen is a necessary but not sufficient condition for disease occurrence. If we knew all the component causes, including their critical periods of action, we could predict with certainty who will get sick and who will not. But lacking that knowledge, our ability to predict is probabilistic based largely on studies of risk factors and associations observed in populations rather than individuals.

Spectrum of Public Health Interventions

In the case of the novel coronavirus and COVID-19 disease, there has been rapid evolution of public health guidance informed by accumulating evidence and experience in

⁹ Miriam Solomon, Jeremy R. Simon, and Harold Kincaid, *The Routledge Companion to Philosophy of Medicine, Routledge Philosophy Companions* (New York: Routledge, Taylor & Francis Group, 2017), 10.

scientific, medical, and community settings. Public health intervention occurs along a spectrum of coerciveness as a function of several factors including: (1) the burden of the disease trajectory (the epidemic curve), (2) the consequences of infection and disease spread, (3) the availability and cost of scientific evidence-supported treatment, prevention, control, and mitigation measures, and (4) competing interests that include economic, political, and community stakeholder priorities and impacts.¹⁰

Health Behavior Models

Models of health behavior based on perceived threat and fear include, among others, the Health Belief Model.¹¹ This model predicts that adoption of health behaviors (such as masking, social distancing, using multiple spoons for Communion, cessation of indoor chanting) is determined by: perceived threat of disease, perceived severity of disease, perceived benefits and negative aspects of the recommended preventive actions, cues to action, and self-efficacy to accomplish the preventive action. Public health mandates and recommendations can be considered as cues to action. Actions of hierarchs, including statements, mandates, and legal action to block certain public health measures, may be considered as impediments to the self-efficacy of clergy and congregants to adopt specific public health measures.

SARS CoV-2 and COVID-19 parallels with HIV and AIDS

¹⁰ “Scholars commonly organize regulatory approaches on a spectrum ranging from interventions that are heavily prescriptive and coercive to those that are almost entirely hands-off. At one end of the spectrum is so-called command-and-control regulation, which is prescriptive (mandating that private actors adopt or refrain from certain behaviors) as well as coercive (obtaining compliance through the threat of penalties). At the other extreme is voluntarism and self-regulation.” Lawrence O. Gostin, and Lindsay F. Wiley, *Public Health Law : Power, Duty, Restraint*, Third edition. ed. (Oakland, California: University of California Press, 2016).

¹¹ Ralph J. DiClemente, Laura Francisca Salazar, and Richard A. Crosby, *Health Behavior Theory for Public Health*, Second edition ed. (Burlington, MA: Jones & Bartlett Learning, 2019), N. K. Janz, and M. H. Becker, "The Health Belief Model: A Decade Later," *Health Educ Q* 11, no. 1 (Spring 1984), <https://dx.doi.org/10.1177/109019818401100101>.

I conclude with a few brief comparisons between SARS CoV-2 and HIV pandemics. The most important difference between the two is the predominant modes of transmission: droplet and airborne (SARS CoV-2) vs. sexual and parenteral (HIV). In both infections, there is a high prevalence of an asymptomatic state during which transmission can and does occur. Both infections initially emerged in the context of an absence of biomedical treatments or preventives, leaving only widespread behavior change as the only means of control. In that context, one might ask whether changing sexual or drug use behavior is easier than changing liturgical practice. Just as we speak of safer sex practices regarding HIV, we should speak of safer liturgical practice in the context of COVID-19. Similar tensions emerged with HIV as now with SARS CoV-2 between epidemic control measures and civil rights of stigmatized minority groups (gay men, Haitians, persons who inject drugs (PWID), sex workers). Do we consider ourselves as persons of faith to be persecuted victims or can our perspective be broader and more holistic?

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