

ARTICLE

'17, '18, '19: religion and science in three pandemics, 1817, 1918, and 2019

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Abstract

Recognizing that serious pandemics call forth explanations which go to the heart of beliefs about why natural disasters occur, this article examines three pandemics over the last 200 years (cholera from 1817, Spanish influenza in 1918–19, and COVID-19) to establish whether such explanations have changed significantly over time and, if so, why. What it finds is that this period saw a watershed in which the dominance of traditional religious explanations declined in many parts of the world in the face of the ascent of explanations based on biomedical science. Tracking this momentous change across several faiths and regions globally makes it possible to put into telling historical perspective the stances taken by faith-based communities in response to the current COVID-19 pandemic.

Keywords: cholera; COVID-19; epidemic; influenza; pandemic; religion; science

Despite the arguments by historians of Western science over the last forty years that, in the modern era, religion and this science have co-existed far more often than they have clashed, it is clear that conflict between the two – the so-called ‘warfare model’ – continues to be seen as a prominent theme in the making of the modern world in both academic and popular circles. Two sociologists have noted how, in popular accounts, ‘religion and sciences are fixed categories that have always been at war’, alongside a ‘long-running academic assumption that religion and science always conflict . . . over competing truth claims about the world’.¹ For example, in 2002 a prominent literary scholar opined that

The history of the past 500 years [i.e. from even before the Galileo affair] has been one of continual, and futile, attempts to set limits to the nature and scope of scientific knowledge. For centuries, the Catholic Church notoriously insisted that what it saw as biblical Revelation . . . should take precedence over human observation . . . [T]he Bishop of Oxford’s . . . attempt to refute Darwin by ridicule . . . contributed another anecdote to the long narrative of successive scientific victories over superstition and obscurantism.²

Glumly, one historian of science recently concluded that, ‘While historians of science have long ago abandoned this simplistic narrative, the “conflict myth” has proven to be remarkably resistant

¹J. H. Evans and M. S. Evans, ‘Religion and Science: Beyond the Epistemological Conflict Narrative’, *Annual Review of Sociology* 34, no. 1 (2008): 88.

²S. Prickett, *Narrative, Religion and Science: Fundamentalism Versus Irony, 1700–1999* (Cambridge: Cambridge University Press, 2002), 72.

to their demythologizing efforts and remains a centre feature of common understandings of the identity of modern science.³

Written by neither a theologian nor a historian of science or religion but by a historian of epidemics in the midst of the COVID-19 pandemic, this article seeks to utilize the extraordinarily revealing circumstances afforded by pandemics to illuminate the changing relationship between religion and science globally over the last 200 years and thereby put into perspective that relationship as evinced during the COVID-19 crisis. Since pandemics starkly reveal the underpinnings of societal thought, attitudes, and action, they offer rare opportunities for a comparative, cross-sectional examination across the world, and therefore should be probed along these lines, despite the obstacles in the way of doing so. These include the limitations placed on such an investigation by the relative paucity of secondary literature on the topic in English, especially vis-à-vis the developing world, the inaccessibility of primary source material during the current library lockdowns, a heavy reliance on uncorroborated internet sources for information about the COVID-19 pandemic now raging, and the very real consequent dangers of generalization, of mistaking part for the whole, of depicting religion and science as monolithic and one-dimensional, and of the predominance of official religious positions over the viewpoints of lay members of faith communities.

With these caveats firmly in mind, this article focuses on one key aspect of religious responses to pandemics, namely what they made of and how they reacted to Western scientific responses to the first and second cholera pandemics of 1817 to the 1830s, the Spanish flu pandemic of 1918–19, and COVID-19, identifying how these responses changed over time and – as yet only in very general terms – why. Insofar as it is currently possible, the article is deliberately transnational and trans-faith in its approach, as befits a study involving pandemics and the ethos of this journal, which seeks to move beyond a Global North perspective. In trying to do this, it also seeks to flag for further exploration a topic which, for all of its immediacy, urgency, and relevance to populations across the world as they confronted a pandemic, has not yet attracted much scholarly investigation in English for the period after about 1850.⁴ To use an epidemiological term, the article will, I hope, constitute a herald wave which will be followed by far more substantial successors.

Against this conceptual and methodological background, and an understanding of religion as faith or belief in a supernatural being ultimately determining all events, and of science as meaning largely medical science or Western biomedicine, it is necessary first to consider why pandemics throw such a sharp light on both religion and science. For most of recorded history, fearful humans have turned to a version of theodicy in their search for an explanation for disaster in the actions of some powerful, supernatural force, whether divine, malevolent, or ancestral. Only when medical science offered an independent explanation and effective treatment could it either constitute a serious challenge to such dominant religious explanatory frameworks or cause them to be modified so to accommodate these scientific discoveries.

When a disaster took the form of a rampant pandemic, posing a direct threat to the lives of everyone in a community, the need for an explanation became particularly pressing. Charles Rosenberg, that pioneer historian of epidemics, notes that the fear and anxiety generated by such an epidemic ‘create an imperative need for understanding and thus reassurance’.⁵ Central to

³P. Harrison, ‘That Religion Has Typically Impeded the Progress of Science’, in *Newton’s Apple and Other Myths about Science*, ed. R. L. Numbers and K. Kampourakis (Cambridge, MA: Harvard University Press, 2015), 195–6.

⁴C. E. Rosenberg, *The Cholera Years: The United States in 1832, 1849 and 1866* (Chicago: University of Chicago Press, 1962); R. J. Morris, *Cholera 1832: The Social Response to an Epidemic* (London: Croom Helm, 1976); B. Bulmus, *Plague, Quarantine and Geopolitics in the Ottoman Empire* (Edinburgh: Edinburgh University Press, 2005); Y. Ayalon, *Natural Disasters in the Ottoman Empire: Plague, Famine and Other Misfortunes* (Cambridge: Cambridge University Press, 2014); H. Phillips, ‘Black October’: *The Impact of the Spanish Influenza Epidemic of 1918 on South Africa* (Pretoria: Government Printer, 1990).

⁵C. E. Rosenberg, *Explaining Epidemics and Other Essays in the History of Medicine* (Cambridge: Cambridge University Press, 1992), 294.

providing these have long been institutionally and communally based faiths and healers. As the author of a new book on the history of the relationship between religion and science explains, ‘You can’t really tell the history of medicine without the history of religion and vice versa. Concerns about healing people go back to the origins of religion, and religions have been involved in the training of healers of both body and mind.’⁶

This reliance on religion to make sense of and help mitigate a serious epidemic was clearly evident throughout the world just over 200 years ago, when the first pandemic of the modern globalizing era, cholera, began to spread beyond its endemic home in the Ganges delta across Asia from 1817. As it gathered pace over the next fifteen years, it reached the Middle East, the East and North African coasts, Europe, and North America in two waves in the 1820s and 1830s. Horrifying in its acute symptoms and speed of onset, and threatening entire populations, it demanded an explanation. Faith communities, organized from the local folk level to the supra-national, took little heed of any explanations but their own to account for it, however, as medical healers of all persuasions were unable to offer convincing alternatives or effective counter-measures.

In India, few Hindus looked for an explanation beyond a folk belief that local deities had been offended or displeased by villagers. The perceived source of such ire ranged from not opposing British violations of Hindu religious taboos energetically enough to allowing British colonizers to disrupt the making of devotional offerings to a deity. Such Western biomedical nostrums and interventions as were put forward by the British administration were so ineffective as to see Indians reject them out of hand and, in fact, consider them as another provocation to local deities and thus a source of ‘cosmic disharmony’.⁷

Not surprisingly, many Muslims living in Hindu-dominated regions of Asia shared some of these ideas about the origin of the pandemic and so hastily sought to propitiate displeased local *jinn*s and spirits of their own, so as to bring it to an end. In central Asia, Muslim Kazakhs added demons and spirits as possible sources of the rampant disease and so acted to appease them.⁸ Beyond Asia, some Sunni Muslims saw the cholera as a divine test of their faith and so accepted it without demur, in accordance with what was said to be the Prophet Muhammad’s injunction, ‘Have complete trust and confidence in God and . . . endure [with] patience and accept with contentment His decrees.’⁹ For example, when asked why he ate unwashed vegetables, a Turkish Muslim replied fatalistically, ‘What do I care? What is written is written.’¹⁰ Shi’ite clerics in Persia attributed it to Allah’s wrath, against which the only resort was to seek divine intercession and wear talismans bearing Quranic verses.¹¹

Like India’s Hindus, Buddhists perceived the pandemic as having been sent either by angry local demi-gods and *asura* as punishment or by malevolent demonic spirits intent on wilfully causing harm. Consequently, wearing protective amulets and undertaking penitentiary visits to shrines were common responses. In 1820 the Buddhist king of Siam, Rama II, even organized a mass religious festival with processions by monks chanting sutras in honour of local gods to appeal to them to keep the *hah-lang* (as cholera was known in Thai) away. It failed to do so.

⁶Jeff Levin, cited in Daniel Burke, ‘When Religion is Dangerous for Your Health’, CNN, 1 May 2020, <https://edition.cnn.com/2020/05/01/world/religion-medicine-coronavirus-wellness-levin/index.html>, an interview with the author discussing *Religion and Medicine: A History of the Encounter Between Humanity’s Two Greatest Institutions* (New York: Oxford University Press, 2020).

⁷D. Arnold, ‘Cholera and Colonialism in British India’, *Past & Present*, 113 (1986): 129.

⁸A. Afanasyeva, ‘Quarantines and Copper Amulets: The Struggle against Cholera in the Kazakh Steppe in the Nineteenth Century’, *Jahrbücher für Geschichte Osteuropas* 61, no. 4 (2013): 496.

⁹Cited in E. Masood, *Science and Islam: A History* (London: Icon, 2009), 115.

¹⁰C. Hamlin, *Cholera: The Biography* (Oxford: Oxford University Press, 2009), 76.

¹¹A. Afkhami, *A Modern Contagion: Imperialism and Public Health in Iran’s Age of Cholera* (Baltimore: Johns Hopkins University Press, 2019), 17.

Even in Christian countries medical science, in its early nineteenth century form, could offer little by way of convincing and effective alternatives to faith-based explanations. Of course, monotheism made it easy for clergymen to identify the exact source. Both the Russian Orthodox Church and the Roman Catholic Church interpreted the cholera pandemic as an instrument of divine punishment for human misconduct. Prayers and ‘sentiments of contrition and penance’ were urgently required to ‘propitiate an offended God’, proclaimed a Catholic priest in England, while French bishops spoke of it as a visitation from a God ‘justly irritated by our sins’.¹² Their Russian counterparts agreed, perceiving the pandemic as ‘punishment . . . by an angry God on an erring people’.¹³

This vision of a wrathful Old Testament God ever ready to deploy the harshest means to keep believers in line was not limited to the Orthodox and Catholic churches. Across the Channel in Britain, starting from a similar foundational belief, Protestant denominations offered some elaboration of this one-dimensional explanatory model. Evangelical Anglicans, Methodists, and Baptists spelled out in detail which sins in particular – indolence, gambling, and drunkenness – had attracted God’s punishing hand. In his bid to marry moral and scientific explanations, one clergyman explained that ‘vicious indulgences predisposed the body to take disease’.¹⁴ For its part, the Church of England, after acknowledging how ‘our manifold provocations . . . most justly deserved’ God’s ‘heavy judgments’, was more inclined to single out radicals’ attacks on the political and social status quo as having precipitated this dire divine action.¹⁵ A High Church journal even concluded that cholera victims’ moral constitutions had been weakened or undermined in the first place by ‘too free use of those patent drugs and preparations which are distilled and rectified in the laboratory of modern liberalism’.¹⁶

Where many in the two Protestant wings did agree was in their condemnation of the (vain) bids by medical science to explain and counter cholera. This ‘pestilence . . . baffles the efforts of science’, crowed one Methodist journal, while another wrote dismissively of them as little more than ‘the impotent boastings of modern science’.¹⁷ A Congregationalist journal was like-minded, describing cholera as ‘this messenger of God’ whose ‘stroke . . . is upon [those] intellectual deities, the gods of philosophical idolatry’.¹⁸ Verily it had confounded their ‘pride’.¹⁹ Only the tiny Unitarian movement expressed strong faith in contemporary science’s ability to explicate the pandemic, but its voice was marginal.²⁰

In the USA, some Christian ministers did qualify the dominant trope of the pandemic as ‘a rod in the hand of God’ to punish sinners by adding that those sinners’ morally, sanitarily, and dietarily flawed lifestyles had predisposed them to disease.²¹ In holding this opinion, they were in accord with the view of some contemporary doctors that such excesses were conducive to cholera. Unsurprisingly, it was a Unitarian minister there who accepted this connection most readily, observing, ‘If one will eat and drink improper substances, or to excess, he . . . must look for

¹²Father Green as cited in Morris, *Cholera 1832*, 147; *L’Ami de la religion*, 3 November 1831, cited in R. J. Janet, ‘Providence, Prayer and Cholera: The English General Fast of 1832’, *Historical Magazine of the Protestant Episcopal Church* 51, no. 3 (1982): 306.

¹³R. E. McGrew, *Russia and the Cholera, 1823–1832* (Madison: University of Wisconsin Press, 1965), 73–4.

¹⁴The Anglican Rev. Vaughan Thomas as cited in R. J. Morris, ‘Religion and Medicine: The Cholera Pamphlets of Oxford, 1832, 1849 and 1854’, *Medical History* 19, no. 3 (1975): 258. Thomas’ position as chair of the Oxford Board of Health during the cholera epidemic of 1832 and his own exposure to the ideas of natural theology perhaps alerted him too to the role of poor living conditions in the high number of cholera deaths.

¹⁵Proclamation by King William IV, 6 February 1832, cited in Janet, ‘Providence, Prayer and Cholera’, 303.

¹⁶*British Critic* 11 (1832), cited in Morris, *Cholera 1832*, 146.

¹⁷*Wesleyan Magazine*, cited in P. K. Gilbert, *Cholera and Nation: Doctoring the Social Body in Victorian England* (Albany: State University of New York Press, 2008), 25; *Methodist Magazine* 2 (1832), cited in Morris, *Cholera 1832*, 139.

¹⁸*Congregationalist Magazine* 15 (1832), cited in Morris, *Cholera 1832*, 139.

¹⁹*Methodist Magazine* 2 (1832), cited in Morris, *Cholera 1832*, 139.

²⁰Morris, *Cholera 1832*, 142–3.

²¹The Presbyterian Rev. Gardiner Spring as cited in Rosenberg, *Cholera Years*, 43.

disease We must cease to violate the laws of our constitution – must conform in body and soul to the will of the Creator.²² In this way, Unitarians sought to reconcile both mainstream Christian explanations and prevailing scientific ideas about nature, health, and disease. Rosenberg has described this ‘casual confounding of the spiritual and the material’ as ‘a doctrine which seemed to resolve neatly this inherent paradox’.²³ However, such an accommodating resolution of two fundamentally different explanatory frameworks could not last if one of the two were to become more successful and therefore more excluding of the other. Cognizant of future developments, the historian of cholera R. J. Morris commented tartly, ‘If the authority of God was to depend upon the continued failure of science, then these foundations of faith were indeed vulnerable.’²⁴

Indeed, the very opposite of continued failure to account convincingly for pandemics like cholera was what biomedicine offered in the 101 years after 1817. Those 101 years saw the development of, inter alia, new medical sciences such as pathology and physiology, the blossoming of sanitary science and public health and their impact on living conditions, John Snow’s decisive demonstration of how cholera was spread, and, most critically of all, the germ revolution breakthrough led by Pasteur and Koch.

Against the background of other challenges, too, to the accepted Christian understanding of the world, most notably in Europe and North America by geology, higher biblical criticism, and the doctrine of evolution, and the growth of secularism there, the effect of these medical innovations on thinking about disease had long begun to appear in the public domain as well, and even to be embraced by some governments. As early as 1853, in turning down a request for the proclamation of an official day of humiliation for fasting and repentance in the face of a new cholera outbreak – such a day had been formally observed in the United Kingdom during the 1832 cholera pandemic – the British Home Secretary, Lord Palmerston, had explained that it was necessary first to cleanse impoverished neighbourhoods ‘which, if allowed to remain, will infallibly breed pestilence, and be fruitful in death, in spite of all the prayers and fastings of an united but inactive nation. When man had done his utmost for his own safety then it is time to invoke the blessing of Heaven.’²⁵

However, such revolutionary ideas found little traction elsewhere in the world and there is little evidence that, 101 years later, during the great pandemic of Spanish flu of 1918–19, they had had much impact on faiths dominant in non-Western societies. Thus, most Hindus and Buddhists and a number of Africans still looked to offended local deities or spirits as the source of this devastating pandemic, while Muslims saw it primarily as the *taqdir* (will) of Allah and a severe test of their faith. Orthodox Jews felt that seeking God’s purpose in the Spanish flu was a vain quest. ‘Let us frankly confess that such knowledge . . . is too high for us to attain unto it’, acknowledged a senior rabbi.²⁶

Equally untouched by the scientific breakthroughs of the preceding seventy years were most Africans who were neither Christian nor Muslim. These traditionalists started from a quite different explanatory premise, rooted in this case in both the human and spiritual world, namely that death on such a scale was unnatural and so must be the product of the actions of ill-intentioned people, namely human witches or wizards driven by anger, envy, or selfishness. Accordingly, bereaved families hired professional witch-finders to ‘smell out’ the malevolent individuals responsible so that they could be punished. ‘Many cases of homicide and serious assault resulting from “smelling out” have come to my notice recently,’ reported a South African legal official in 1919, ‘especially after the outbreak of influenza in the native territories.’²⁷

²²The Unitarian Rev. Samuel Barrett as cited in *ibid.*, 45.

²³*Ibid.*, 45 and n. 13.

²⁴Morris, *Cholera 1832*, 139.

²⁵Cited in Gilbert, *Cholera and Nation*, 34.

²⁶Rev. A. P. Bender as cited in Phillips, ‘*Black October*’, 139.

²⁷Solicitor-General of the Eastern Cape as cited in *ibid.*, 149.

Some denominations within the Christian fold appear to have been similarly unaffected by the new medical and scientific ideas of the second half of the nineteenth century, especially as biomedicine had no effective preventive or treatment of Spanish flu to offer in 1918 (knowledge of the very existence of a virus as a pathogenic cause still lay in the future). Roman Catholic priests in Ireland, the Iberian peninsula, and Latin America largely interpreted the Spanish flu pandemic as a manifestation of divine anger at a range of personal and communal sins, in expiation of which intercession by saints associated with pestilence was necessary. In Portugal, prayers from the days of the cholera pandemics were repeated verbatim.²⁸

Another Christian denomination to retain its belief in the wrath of God sending pandemics was Calvinism. However, it did now recognize that this position had to take into account the germ revolution, which it did, but on its own terms, acknowledging that divine intervention might utilize indirect means to achieve its end. In this way, a Calvinist theological journal in South Africa asked whether the plague of lice visited on Pharaoh's Egypt did not demonstrate how God could transform 'the paltriest thing in nature' into a potent instrument of divine will, while another compared those who attributed the raging pandemic purely to natural factors to a dog which bites a stone thrown at it 'without noticing who the thrower is', concluding that, whatever the instrument employed, God was inescapably the First Cause.²⁹ Tellingly, the sins being punished included not only familiar moral, religious, and social transgressions, but also 'worshipping science', which was epitomized by the medico-scientific explanations advanced to account for the Spanish flu. These, the former journal railed, were classic examples of the vanity and conceit which arose when human beings thought they knew better than God and placed science above him: 'Nowadays people speak of germs and dirty streets and slums and it is unfashionable and unscientific to talk about sin.' God demanded that 'we should have no other gods before Him', yet people had made science and materialism the very goal of their existence: 'It itself is their God.'³⁰

Such a dogmatic belief in a punitive God as the sole source of the 1918 pandemic was echoed in other conservative Christian circles around the world too, such as the Bible belts of the USA and the Netherlands, and in numerous evangelical congregations in North America, Europe, and its colonies.³¹ For such ineffective medical explanations as were offered, these communities had little regard.

At the other end of the explanatory spectrum were those members of Protestant churches in which the clergy were coming to terms in their theology with the recent discoveries in medicine and science. Foremost among them were Methodist revivalist ministers, who called on their congregants to take scientifically based measures to prevent infection rather than just beseeching God 'to perform a miracle in the preservation of health. Christians do not discount their faith in the omnipotence of their God by keeping their bodies and streets clean and non-germ producing; by using care in traffic and travel, accepting vaccination, sprays and disinfectants and keeping God's

²⁸J. M. Sobral, M. L. Lima, and P. S. E. Sousa, 'And to Make Things Worse, the Flu: The Spanish Influenza in a Revolutionary Portugal', in *The Spanish Influenza Pandemic of 1918–1919: Perspectives from the Iberian Peninsula and the Americas*, ed. M. Porras-Gallo and R. A. Davis (Rochester: University of Rochester Press, 2014), 85.

²⁹*De Kerkbode (The Church Messenger)*, 7 November 1918, 1057; *Het Kerkblad (The Church Magazine)*, 1 November 1918, 1, both cited in Phillips, 'Black October', 138.

³⁰*De Kerkbode*, 17 October 1918, 992–3, cited in Phillips, 'Black October', 140.

³¹T.-E. Krijger, 'The Religion Factor: Coping with Covid-19 in Dutch Christianity: A Comparison with the 1918 Spanish Flu Pandemic (Part One)', 24 April 2020, <https://www.rug.nl/research/centre-for-religious-studies/religion-conflict-globalization/blog/coping-with-covid-19-in-dutch-christianity-comparison-with-the-1918-spanish-flu-pandemic-24-04-2020>; T. Quinn, *Flu: A Social History of Influenza* (London: New Holland, 2008), 142–3; G. Garrison, 'What Clergy Said When Influenza Closed Churches in 1918', 17 April 2020, <https://www.al.com/coronavirus/2020/04/what-clergy-said-when-influenza-closed-churches-in-1918.html>; N. K. Bristow, "'You can't do anything for influenza': Doctors, Nurses and the Power of Gender during the Influenza Pandemic in the United States", in *The Spanish Influenza Pandemic of 1918–19: New Perspectives*, ed. H. Phillips and D. Killingray (London: Routledge, 2003), 67.

own laws of health and life.³² Of a similar mind were South African Congregationalists, who insisted that 'ignorance and neglect, not God, are responsible for disease'.³³

Such interpretations were echoed in Anglican circles. A South African bishop made it clear that he did 'not believe . . . that God has sent the influenza because He is angry with us, and has determined to punish us'. What had made the Spanish flu so lethal was that

certain conditions . . . laid down by the Creator as necessary to our health, have been neglected . . . We know already that fresh air, cleanliness, nourishment, are our allies in contending with this disease, and that on the other hand, foul air, dirt, poor and insufficient food, are enemies entrenched in the households of thousands of people in this country . . . we who tolerate such conditions are guilty before God and humanity . . .³⁴

Although his archbishop thought similarly – he observed that 'The enemy who sows tares certainly found a congenial soil in the slums here' – it is clear that not all Anglicans held such an opinion.³⁵ For example, in 1919 an Australian Anglican Synod committee regretted that the Church there had not strongly enough opposed 'the view so widely held, and vigorously promulgated, that the world-sickness of today is due to material causes, and can be cured by material means. We must boldly proclaim, whoever we offend . . . [that] Only God in Christ can do that.'³⁶

For all religious denominations, however, the acid test of their faith came when the civil authorities in their countries, quite unlike their predecessors a century earlier in response to the cholera pandemic, required that all places of public gathering, including those used for communal worship, be closed so as to minimize the social contact which medical science argued was a major mode of infection. In this head-on conflict between the teachings of faith and science, some Congregationalists were, predictably, four-square in support of such closure, one of their ministers in Cape Town, the Reverend Frederick Conquer, declaring, with a flourish of theological modernism, 'if the churches are to open for public assembly, I fail to see why we should discriminate against the theatres. Whatever ecclesiastics may think about our newly-made acquaintance, the bacillus catarrhalis, there is no essential difference between a congregation assembled for public worship and a crowd gathered to witness the screening of a film.'³⁷ Even Methodists in Cape Town were taken aback at such a radical stance, one of their ministers in the city responding that churches should remain open, not on theological grounds, but because, amid the crisis of the pandemic, people needed 'detachment from the present distress, . . . comfort and inspiration for further duty . . . [and] the need of breathing another atmosphere, if only for a brief space'.³⁸ Local Anglican clergymen agreed, but on theological grounds, some expressing themselves keen to continue indoor services at 'a time when people are looking to their religion for help and comfort', or because not to do so 'would be surrendering every principle that is most precious and discarding GOD as useless in such times'.³⁹ Some tried to resolve the dilemma by shortening services or holding them in the open air.

Such compromises were frowned upon by the denominations which gave unquestioned priority to religious imperatives, the Roman Catholic, Baptist, and Calvinist churches. It was plainly

³²*Age-Herald* (Birmingham, AL), 14 October 1918, cited in C. Gehrz, 'What the 1918 Influenza Pandemic Meant for American Churches', 10 March 2020, <https://www.patheos.com/blogs/anxiousbench/2020/03/influenza-pandemic-1918-churches/>.

³³*Congregationalist*, March 1919, 5, cited in Phillips, 'Black October', 144.

³⁴*Church Chronicle*, 28 November 1918, cited in Phillips, 'Black October', 144.

³⁵Archbishop W. M. Carter as cited in Phillips, 'Black October', 144.

³⁶C. Reilly, 'The 1919 Flu Pandemic and the Diocese of Melbourne', 22 April 2020, <https://www.melbourneanglican.org.au/wp-content/uploads/2020/04/The-1919-flu-pandemic-and-the-Diocese-of-Melbourne-2020Apr22.pdf>.

³⁷Letter from Rev. F. Conquer, *Cape Times*, 26 October 1918, cited in Phillips, 'Black October', 146.

³⁸Letter from Rev. A. H. Hodges, *Cape Times*, 26 October 1918, cited in Phillips, 'Black October', 146.

³⁹Letter from Archbishop Carter, *Cape Times*, 25 October 1918, cited in Phillips, 'Black October', 145; *Benoni and District Parish News*, November 1918, 5, cited in Phillips, 'Black October', 145.

'unchristian', declared a Calvinist journal, to prevent public worship where people were 'suffering under God's afflicting and chastising hand'.⁴⁰ Compared to the Congregationalist Reverend Conquer's stance, its beliefs might seem 'old-fashioned and unscientific', it declared, yet, of the two, 'closed churches fill us with greater fear than bacillus catarrhalis'.⁴¹ Elsewhere in the world, ministers of these denominations shared this view, and several ignored a ban on indoor services, even if this meant courting a clash with the authorities. In Kentucky, a Baptist pastor was arrested in his pulpit by the police for infringing the ban, while in neighbouring St Louis a Catholic priest was taken in for questioning after 200 congregants were seen entering his church. He told the police that they had entered the church through a side window without his noticing them.⁴²

Insofar as I can tell, such open, large-scale resistance to the official closure of places of public worship and theological training has not been common during the current COVID-19 pandemic.⁴³ Of course, in 2020 the existence of social media does offer the novel alternative of live virtual services for those possessing radio, television, or devices giving them access to the World Wide Web or the likes of Zoom, Skype, Youtube, Crowdcast, and Teams. However, despite their ready embrace of such science-based technology, many faith communities have not carried this acceptance of the fruits of science into their theology. Some fundamentalists have continued the long tradition of explaining a pandemic in terms of the devil's work straight and simple. For example, the born-again American Christian televangelist Kenneth Copeland claimed that 'the devil is trying to give me the flu . . . or whatever else kind of thing he's trying', while a pastor of the International Evangelism Center-Africa Interior Mission, Mamadou Karambiri, told an enthusiastic congregation in France that the coronavirus was 'a satanic plan conceived a long time ago to destroy the world'.⁴⁴

Other faith organizations, under the banner of Christian, Muslim, Jewish, and Hindu sects, reprised the long-standing explanation of pandemics as instruments of divine punishment for sins moral, religious, political, and dietary. Thus, a right-wing rabbi in Israel claimed that COVID-19 was divine retribution for gay pride parades there; an Al Qaeda affiliate in Syria asserted that the virus was sent by Allah to kill unbelievers who 'shed the blood of Muslims all over the world'; the head of an extremist Hindu nationalist movement explained that the coronavirus was an avatar sent to punish meat-eaters; and two Pietist Calvinist ministers in the Dutch Bible belt attributed it to God's anger at the decline of morals in the world.⁴⁵ As epidemic history tells us, such explanations say more about the prior concerns of the author than about the origin of the pandemic.

⁴⁰*De Kerkbode*, 31 October 1918, 1034, cited in Phillips, 'Black October', 145.

⁴¹*De Kerkbode*, 31 October 1918, 1035, cited in Phillips, 'Black October', 146.

⁴²Joe Carter, '9 Things You Should Know About the 1918 Influenza Pandemic', 24 March 2020, <https://www.thegospelcoalition.org/article/9-things-you-should-know-about-the-1918-influenza-pandemic/>.

⁴³Two rare examples of open resistance were mass protests against the closure of mosques and shrines in Iran in March 2020 and the resistance by ultra-Orthodox Jews against the closure of theological training institutions in Jerusalem. See S. E. Rasmussen and A. Egbali, 'Iranians Defy Authorities in Bid to Access Holy Sites Closed Amid Coronavirus', *Wall Street Journal*, 17 March 2020, <https://www.wsj.com/articles/iranian-worshippers-defy-authorities-in-bid-to-access-holy-sites-closed-amid-coronavirus-11584460895>; TOI Staff, 'Crowds of Jerusalem Ultra-Orthodox Clash with Cops Enforcing Virus Lockdown', *Times of Israel*, 22 March 2020, <https://www.timesofisrael.com/jerusalem-ultra-orthodox-clash-with-cops-enforcing-virus-lockdown-3-arrested/>.

⁴⁴K. Copeland, as cited in B. Niemitz, 'Evangelical Preacher Claims to Cure Coronavirus through Television', *New York Daily News*, 13 March 2020, <https://www.nydailynews.com/news/national/ny-televangelist-cure-coronavirus-television-sets-20200313-vwkb2aqkwzfvzgu3lzwfw6223u-story.html>; T. Salaün, 'Special Report: Five Days of Worship that Set a Virus Time Bomb in France', 30 March 2020, <https://www.reuters.com/article/us-health-coronavirus-france-church-spec/special-report-five-days-of-worship-that-set-a-virus-time-bomb-in-france-idUSKBN21H0Q2>.

⁴⁵TOI Staff, 'Israeli Rabbi: Coronavirus Outbreak Is Divine Punishment for Gay Pride Parades', *Times of Israel*, 8 March 2020, <https://www.timesofisrael.com/israeli-rabbi-blames-coronavirus-outbreak-on-gay-pride-parades/>; Hayat Tahrir al Sham, cited in A. Hanna, 'What Islamists Are Doing and Saying on COVID-19 Crisis', 14 May 2020, <https://www.wilsoncenter.org/article/what-islamists-are-doing-and-saying-covid-19-crisis>; Swami Chakrapani, cited in T. Ahmad, 'Keeping Faith in Times of Pestilence Often Meant Inventing New Enemies', 11 April 2020, <https://thewire.in/history/keeping-faith-in-times-of-pestilence-often-meant-inventing-new-enemies>; Krijger, 'Religion Factor'.

More mainline religious denominations' explanations of COVID-19 perceive a far less directly interventionist godhead. Islamic theologians of this ilk see the current pandemic traditionally as primarily a test of faith, and Congregationalist Christians as a challenge to persevere in the face of adversity and thereby develop personal character and belief.⁴⁶ The very influential Chabad movement within Judaism has focused on how the COVID-19 experience can be an occasion to deepen faith in God. 'It is not for us to ask "Why?"', announced one of its rabbis, echoing what a predecessor had said in 1918; 'It is for us to ask "What [must we do]?"'⁴⁷

Not only were the mainstream Roman Catholic and Protestant churches as unwilling to conceive of God's direct hand in COVID-19, but both were now agreed, unlike in 1918, that what this pandemic demonstrated chiefly was the need to re-emphasize their social gospel, along with commensurate action to implement it. 'To make sense of God's kingdom and will during the COVID-19 pandemic', proclaimed the Anglican Alliance in April 2020, 'we need to look to those on the margins of our societies and its impact on them . . . This pandemic is an invitation to all of us to ask questions about our world. What does it mean for God's kingdom to come and God's will [to] be done in the time of COVID-19?'⁴⁸ Pope Francis summed up this stance succinctly: 'God is asking us, "Where is your brother?"'⁴⁹ In a practical demonstration of this position, churches in Britain closed all church buildings at the government's request, except for those offering essential social outreach such as foodbanks, soup kitchens, and night shelters, provided that these met the government's official safety precautions.⁵⁰

In adopting this stance, these mainstream faiths publicly moved closer to a wholehearted, accommodationist embrace of science than in any previous pandemic, even HIV/AIDS. Moreover, Pope Francis' embrace included not only science but other denominations and faiths too. Early in May 2020, he called on believers of all faiths to join in a common day of fasting and prayer on 14 May, which fell during the Muslim fasting month of Ramadan. The aim was to request God/Allah 'to help humankind overcome the coronavirus epidemic'.⁵¹ In fleshing out this appeal on behalf of the Pope and his ecumenical Higher Committee of Human Fraternity, the second papal secretary, Monsignor Yoannis Gaid, called on the faithful to pray that 'God Almighty may inspire and guide scientists and researchers to discover a vaccine soon'.⁵² Momentously, he explained that, 'Though the areas of modern and traditional faith are often perceived as incompatible, there is no contradiction between the two, as demonstrated by the pandemic. There is complementar[ity]. Science without faith remains without horizon and faith without science remains without support. This is the great lesson of COVID-19.'⁵³ Almost as

⁴⁶M. H. Fadel, 'Coronavirus and Islam: How Muslims Can Come to Terms with the Pandemic', *Middle East Eye*, 9 April 2020, <https://www.middleeasteye.net/opinion/coronavirus-muslim-world-islam-covid-19-pandemic>; H. Koire, 'Coronavirus: An Islamic Perspective', *Newvision*, 17 March 2020, <https://www.newvision.co.ug/news/1516641/coronavirus-islamic-perspective>; United Congregational Church of Southern Africa, 'Pastoral Letter at an Extremely Difficult Time for Church and Society', 26 March 2020, <http://www.unitedcongregational.org/wp-content/uploads/2020/03/UCCSA-Covid-19-Pastoral-Letter.pdf>.

⁴⁷Rabbi Zushe Winner, 'Jewish and Chassidic Perspectives on the Coronavirus', https://www.chabad.org/multimedia/video_cdo/aid/4687145/jewish/Jewish-and-Chassidic-Perspectives-on-the-Coronavirus.htm.

⁴⁸Anglican Alliance, 'Faith in the Time of Coronavirus: Bible Study 5, Your Kingdom Come', April 2020, <https://files.anglicanalliance.org/wp-content/uploads/2020/04/22143718/COVID-19-Bible-studies-FINAL.pdf>.

⁴⁹Pope Francis as cited in G. O'Connell, 'Pope Francis Shares His Vision for Covid-19 Aftermath', *America-Jesuit Review*, 17 April 2020, <https://www.americamagazine.org/faith/2020/04/17/pope-francis-shares-his-vision-covid-19-aftermath>.

⁵⁰Methodist Church of the United Kingdom, 'Official Guidance', update issued on 15 May 2020, <https://www.methodist.org.uk/about-us/coronavirus/official-guidance/>.

⁵¹E. Judd, 'Pope Francis Calls for Fasting during Day in Ramadan for End of Covid-19', *Al Arabiya*, 5 May 2020, <https://english.alarabiya.net/en/features/2020/05/05/Coronavirus-Pope-Francis-calls-for-fasting-during-day-in-Ramadan-for-end-of-COVID-19>.

⁵²Speech of Monsignor Yoannis Lazhi Gaid', *Twitter*, 11 May 2020, <https://twitter.com/HumanFraternity/status/1259967353649016836/photo/3>.

⁵³As cited in Judd, 'Pope Francis Calls for Fasting'.

momentously, the call was echoed by the head of the Eastern Orthodox Church, Patriarch Bartholomew, who spoke of the need to embark on a journey to the Promised Land, 'where science, by the grace of God, will overcome this virus', and by the Grand Imam of Cairo's Al-Azhar, Sheikh Ahmad al-Tayyeb, who exhorted Muslims 'to pray to Allah, asking Him to eradicate this pandemic and to help scientists reach treatment for the coronavirus disease'.⁵⁴ Extending the ecumenicism even further, backing was also forthcoming from religious minorities such as the Hindu community in the United Arab Emirates and the Mormon Church.⁵⁵ As if to reciprocate, the World Health Organization's director-general recently called on faith and science to 'work hand in hand . . . The two do not contradict; they go together.'⁵⁶

For this zeal by several faiths to reach a public accommodation with science, the discoveries and innovations of medicine and science since the Second World War and their effectiveness have been a pre-eminent game-changer. A rampaging COVID-19 has highlighted this outcome very clearly indeed, as is the wont of epidemics and pandemics, which, through the intense pressure they place on society, allow us to see clearly changes taking place below the surface in the relationship between key (and, in the past, oppositional) determinants of human conduct like faith and science. As Charles Rosenberg pointed out, 'Values and attitudes, especially in the areas of science, of religion, of traditionalism and innovation are . . . inevitably displayed during an epidemic.'⁵⁷ Historians both of religion and of science will do well to bear this in mind.

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⁵⁴Message from His All-Holiness Ecumenical Patriarch Bartholomew Regarding Covid-19', 19 March 2020, <https://www.goarch.org/-/message-ecumenical-patriarch-bartholomew-covid-19>; 'In Response to COVID-19 Crisis, Egypt's Azhar, Vatican Call for Day of Prayer', *Egypt Today*, 2 May 2020, <https://www.egypttoday.com/Article/2/85342/In-response-to-COVID-19-crisis-Egypt%E2%80%99s-Azhar-Vatican-call>.

⁵⁵T. Khalid, 'Coronavirus: Hindus in UAE Join Day of Prayer Supported by Pope Francis, Azhar Imam', *Al Arabiya*, 12 May 2020, <https://english.alarabiya.net/en/coronavirus/2020/05/12/Coronavirus-Hindus-in-UAE-join-day-of-prayer-supported-by-Pope-Francis-Azhar-Imam>; T. Walsh, 'Latter-Day Saint Leader Expresses Support for Today's Interfaith Day of Prayer for Rescue from the Pandemic', *Deseret News*, 13 May 2020, <https://www.deseret.com/faith/2020/5/13/21257703/catholics-muslims-mormons-latter-day-saints-prayer-day-coronavirus-covid-19-pope-christians-god-pray>.

⁵⁶WHO Reacts to Apparent Faith Healing of Doctor in Cameroon', *Weekend Argus*, 4 July 2020, <https://www.pressreader.com/south-africa/weekend-argus-saturday-edition/20200704/281930250262312>.

⁵⁷C. E. Rosenberg, 'Cholera in Nineteenth Century Europe: A Tool for Social and Economic Analysis', *Comparative Studies in Society and History* 8, no. 4 (1966): 452.