

Cambridge Festival Q&A from Plagues and Pandemic Seminar – 26th March 2021

1. You highlighted that the virus transmits itself internationally far faster today than it did many years ago. This may be due to more air travel but is that the only way it can transmit- after all the virus must have started somewhere (possibly China) so could those circumstances be replicated in other countries.

Response: it is true that the virus travels much faster now due to most means of transport, whether globally or regionally. However, air travel is not the only means of transportation in today's world. You may recall the transmission via cruise ships. The SARS-CoV-2 (coronavirus) is endemic in wildlife habitats (bats). From the original animal reservoir the virus can be transmitted to an intermediary host. In the case of the SARS-COV-2 the intermediary is as yet to be identified (pangolins have been suspected, but not proven). The transmission to humans is also yet to be fully identified. Wet Markets have been highly suspected – but not necessarily the world's largest one in Wuhan. The virus could have been transmitted by a human trader or shopper at a wet market, which they could have got from wildlife hunting, tracking, or from domestic farm animals. This trajectory occurred in West and Central Africa, with the HIV and Ebola outbreaks (probably from humans coming into contact with chimpanzee/monkey carcasses). You may have heard of the farmed minks being identified for culling in Denmark, but following the cull the seriousness of mink being hosts was revised downwards. Therefore, technically, this trajectory of transmission could happen anywhere where the circumstances allow for it. That is, where humans have encroached upon wildlife habitats. It is possible that the same virus could jump from the animal reservoir to humans more than once, and in different places and times, although so far that has not been proven and appears to be highly unlikely. Of course, once the virus is in a human host then the transmission rates explode with human to human proximity anywhere there are humans.

2. I think the government could easily encourage people to take the vaccine or otherwise restrict the dissenters' activities. Cf. safety belts and driving. I would welcome your thoughts on this.

Response: The government could resort to this – hence the notion of vaccine passports being aired. We are also aware of the long-standing requirement for a Yellow Fever certificate before entering certain countries. There can be problems with such government mandatory measures, in the way they are both worded and understood (e.g. the various Covid regulations and advisories). In some ethnicities such mandates are viewed with huge suspicion and fear and resentment. This is because of previous experiences with government measures that have deliberately targeted that ethnicity (e.g. Windrush generation in the UK; the Uighurs in China; Blacks and Native Americans in the USA). Unfortunately, this pandemic is highlighting historic ethnic and racial abuses that have left a generational suspicion of the State and Big Pharma. We mentioned preference for the concept of *vaccine hesitancy*, which can be a healthy characteristic, especially in things novel. Critical thinking is to be commended, but always following the science as much as possible. Remember, there are a good number of anti-seat beltters and anti-motorbike helmet wearers around even today, although seat-belts and helmets are clearly of benefit primarily to the individuals wearing them! We think that engaging vaccine advocates such as local health-workers and community leaders is an important way forward. Recent polls on the subject have shown nursing and GP staff holding most public confidence. But, again, it is the novel aspect of this pandemic that should caution against a too hard-handed approach to vaccine enforcement.

3. It has been suggested that this virus is nature's way of dealing with global warming which seems to be the result of over population of the planet. What do you think?

Response: the issue of over-population is a moot one, and not without considerable controversy, given the presence of genocide in certain parts of the contemporary world, and the historic Holocaust. The Malthusian theory, of population explosions outdoing food supplies, resulting in starvation and population die-off, is open to exploitation and manipulation, especially by high income countries. In our research experience of disasters it is inexorably those in low income countries who tend to be hit the hardest, and who die the most. To us it would seem an ill-construed 'luxury,' afforded by the rich, to support such theories. Large families tend to be found most in low income/high poverty contexts – where child mortality is very high – and also among some very rich, who have the wealth to finance the cost of healthcare for their families. In fact, a more moral and ethical approach would be to re-set world economies to ensure a high degree of economic equity around the globe. The problem isn't so much a case of over-population as resources being inequitably located. Bearing in mind, from the Judeo-Christian perspective, that humans were created to multiply, it is incumbent upon us as the human race to take a responsible approach to that multiplying and to the equitable resourcing of populations. Many Catholic scholars have focused on this issue recently.

4. I am [approaching] particularly from a philosophical stance[:] your thoughts on the purpose of viruses in God's Creation. God not only allowed plagues for the Egyptians but actually ordained. What is the Christian's defence qua theodicy issues, when challenged with "what is God doing about the pandemic"?

Response: The Hebrew Bible records the plagues with which Yahweh afflicted the Egyptians (Exodus 7-12). References are also found where Yahweh sent "pestilence" to afflict Israel/Judah and other nations. However, since these are all instances which come from records that involve God's covenant people at that time they have to be understood in that specific context. These are not necessarily incidents from which we can extrapolate lessons to understand general disease-related incidents. They simply indicate that the Creator God can make use of his creation for his own just and good purposes. Coming more directly to the issue of theodicy: we (and other reputable biblical scholars) take philosophical theodicy to be an ill-conceived approach to understanding disasters/life in this world. No-one has ever come up with a satisfactory theodic theory over the many centuries during which great minds have tried. In our research of major catastrophic disasters – involving natural hazards, such as earthquakes, volcanoes, storms and floods – it has become very clear that the reason those natural hazards became disastrous has been largely due to human activity (e.g. poor construction activities, corrupt political and commercial practices, poor risk assessments, etc.). It can be too easy for us humans to blame God and ignore our own blatant irresponsibility.

5. Death is seen to be a taboo topic for today's culture and society and death is perceived to be defeat, not least by the medical profession. How might this be addressed please?

Response: You are correct in this observation. But this state of affairs is only a historically recent one, due to a number of factors: increasing medical understanding in healthcare, life prolongation, pharmacology, medical engineering/technology (life-support) in ICUs. It is also due to increasing professional standards and practices in the emergency services industry, whereby the public is

shielded from incidents, by the focus on in-hospital care and end-of-life care in hospices. So many people will live much longer nowadays before actually witnessing dying and the dead. However, there are those within the palliative care and hospice movements who definitely are encouraging a more open conversation about dying and death (e.g. Kathryn Mannix, *With the End in Mind: dying, death and wisdom in an age of denial* (London: William Collins, 2017), which is encouraging, but there is a way to go on this issue yet. From our research too few folk have used the pandemic as an opportunity to have such conversations. Fear of dying/death is a clear issue to overcome; something every Christian has a huge resource for addressing – namely the bodily resurrection of their Saviour, Jesus Christ. In the biblical letter, I Corinthians, chapter 15, the Apostle Paul specifically addresses the issue of fear, death and the resurrection.

6. Where is God at work in all this?

Response: well that question could be fronted from different positions! Firstly, from the position of an atheist the question is a non-sense one, with due respect. Since, if there is no God anyway, the answer is clear, and also very untroublesome – NOWHERE, end of problem. The difficulty with that position and answer is that it just doesn't seem real, nor does it address our sense of horror, fear and mental health struggle that we have all encountered during this pandemic. If there is no God at work, then all that is left is our own resources. Now, simply on a basic human level, it is clear that humans have been/are still at work (NHS staff; Social Services, volunteers, scientists, politicians, neighbours, etc.). The very fact that people still ask the question 'Where is God in all this?' is indicative of us humans acknowledging that all our human resources are not enough to address our fears and anxieties arising from life in a pandemic. So let us assume there is a God. Where is he in all of this? Well, where did those humans (created by God) get all their skills to do as much as they do? Where did they get their compassion, their commitment to help people heal and recover? Why do those who genuinely seek God and call out to him find he answers? Why do so many people who trust in divine revelation (of word and nature) find a level of peace, forgiveness, and of wisdom they never had before? In our research of disasters it has struck us increasingly how most people live their lives with the assumption that life in this world should be / is basically safe and fair. But why should that be so? Usually, because for large amounts of time that is how their life appears. So, given the amount of human irresponsibility in handling the creation, it really is remarkable that there are so few pandemics in our lifetimes. Could that not be the case because our Creator is far more good, kind, generous, and compassionate than we give due recognition to?

7. Are viruses part of God's good creation?

Response: there are no scientific or theological reasons that we can see for this not being the case. After all, not all viruses result in disease or damage. Given the vast amount of viruses that there are on this planet, and given the positive role these have played, and are playing still, in sustaining life, we argue that viruses are essential to the wellbeing of the planet's life, including to humans. For example, humans have co-opted a virus to enable us to use placentas to nurture embryos. About 8% of the human genome consists of viral inserts, though we don't yet know what they all do. And many animals host viruses because they give them protection from bacteria. It is only because of *some* viruses, or viruses that have 'jumped' (which is what viruses are designed to do) into alien species/environments and caused diseases, that we tend to think ill (excuse the pun) of them. Some Christians think viruses are a consequence of the "fall" (Gen. 3), or are creations of Satan, but there is no theological or scientific basis for such views. However, if we can distinguish between the virus and the disease then there is some argument for the disease in humans being a consequence of the

“fall” of even a disease that Satan can manipulate malevolently. This is why we argue that it is routes of transmission that are so important, because they lead to the virus ‘jumping’ from its harmless habitat into the alien, human one. Of course, anything that God creates as good can be used for evil if used irresponsibly.

8. As a virologist working on basic science in COVID19, I know from my experience that there are a lot of negative feelings (and sometimes grief) associated with the outcome of track and trace, in particular when the source is someone you know. While I agree it is necessary for such [a] system, how would a Christian virologist cope with these negative “blame the patient” mentality? How do we approach these feelings with compassion and empathy?"

Response: this is clearly an important and sensitive issue, involving GDPR integrity and human rights. We understand also why it can pose stress for the virologists who play such an important part on the Test, Track and Trace (TTT) programmes. We are encouraged to read that you see such a system as necessary as well. It is interesting that in those countries where the TT systems have been very successful (e.g. Taiwan, Hong Kong, South Korea, New Zealand and South Africa) cultures of civil compliance have already been in place. In regards to all of these countries this has been largely due to previous epidemics/pandemics they have had to contend with (SARS, MERS, HIV and Ebola). The predominant disease threat to the UK for decades has been ‘flu. Even so the UK healthcare systems have not taken that or any other disease threat as seriously as it should have. Ironically, this has been due, in part, to the success of our NHS in treating diseases. Because disease outbreaks are comparatively rare in the UK, we become complacent over possibilities and risks. If the scientists and government had fully explained and informed the UK public of the value of a full lockdown and the implementation of a TTT program at the beginning of the pandemic then we think there would have been greater compliance. That did not happen, the government prevaricated and then the value of TTT became much denuded. Thus, the answer to your question about how to approach the feelings of those with negative feelings over the use of information is not an easy one. However, we make two possible suggestions: 1. The construction of a truly tried and tested TTT system (The WHO already has one in its tool-kit). As of yet, we have not had an effective TTT system running in the UK, despite HM Gov’s insistence that have. 2. Close collaboration between central government and local government/NHS systems, so that trained community health workers and faith leaders and GP practice nursing staff take charge of implementing the TTT in their region. This would require deploying/employing a large network of local TTTers to ensure people are tracked and persuaded to comply with isolation. Such local agents, more widely known in the community, can bring compassion and understanding regarding individuals identified by TTT programmes. This is how programmes have worked well in other countries. On the issue of dealing with negative feelings compassionately and empathetically: here in the UK we need to understand that a disease outbreak such as we are witnessing is novel, and shocking. It is also something that we need time to come to terms with. The ease and speed with which the virus can spread from person to person is breath-taking, and can occur even after taking great precautions. Admittedly, transmissions occur following some reckless social behaviours, especially by those who cannot have the same degree of knowledge of the virus as a virologist has. The truth is that this pandemic is highlighting both the best and the worst about our human natures.

9. I heard an interview with Professor Dawkins this morning on radio 4. He asserted that viruses attack us because they are programmed to survive at our expense. Does this imply that God pre-ordained their purpose, and if yes, how do we square that with a loving God?

Response: with due respect to Prof. Dawkins, as a biologist he is correct. However, one has to always be cautious with the Professor, because he often has a deliberately provocative and anti-religious agenda in his mind. To be precise, viruses are designed to survive at the “expense” of any host it can find to ‘jump’ to. Viruses have no reproductive capacity in themselves, they are designed to replicate by parasitically deploying their genetic material into the machinery of another host for replication. We see no theological problem with viruses being evolved, designed, or even pre-ordained for that purpose. Remember, they are not living things (not like bacteria); they are designed to operate chemically. So are our hormones, and our neurones, for example, just not parasitically. But hormones, neurones and viruses can cause harm if their processes are allowed to operate in such ways and in environments that cause disease and disability. The Christian doctrine of pre-ordination has to sit alongside an equal focus upon human responsibility. It must be distinguished from fatalism. Thus, we argue, viruses often do what they do harmlessly and for the good of the planet; it is only when they do what they do because bad routes of transmission occur, that they cause us damage. Given the vast number of viruses that inhabit this planet, it is clear that most of them function successfully to provide us with the relatively safe world we live in. Because Prof. Dawkins does not believe in a divinely created universe, he tends to view life solely in biological terms, and thereby concludes that the mechanisms of life are basically selfish, and even cruel – we humans just have to live with that and make the best of it! It is interesting if he did use the term “programmed” – programmed by what/who? (Just a thought).

10. Whatever the efforts of individual Christians, churches as institutions have shut their doors for months and often seemed absent from pressing concerns, Can they, as institutions and communities, recover a central role in human life?

Response: we would suggest that this assumption about churches might not be so clear as the question makes out. Theologically, churches are not institutions, at least not when judged theologically. Churches are *organisms*, in that they consist of communities of *people* - not buildings - who function in covenanted *relationships* with one another. Therefore, when the government ordered the lockdown (only the first one actually), then churches were not permitted to meet in their *buildings*, for good reasons of infection control It is also true that some of their customary practices could not function fully or wholly either (collective, in person worship, in person ministries of prayer and fellowship). There are a huge number of Christians who do not view the church to be a building, and who are persuaded that the church has not shut their doors on anyone or been absent from pressing concerns. In fairness to the government (who have come in for a great deal of criticism and suspicion, over its regulations for churches) it has, from the outset, given “religious staff” *keynote worker status*; that in itself has given churches opportunity to engage in pastoral and essential social/mental health support among their members and in their communities. A great deal of this has been carried out by churches, it just has not been given headline status. Many churches have run foodbanks, support groups, and pastoral care initiatives in different ways. Churches have been at the forefront of digital communications, utilising digital media platforms for ensuring fellowship and worship continue *in as best a way as possible in the circumstances*. The fact is we are in the midst of a very serious pandemic, which thrives on close proximity. Though not exactly the same

conditions, the Early Church often had to contend with interruptions and conditions that it would prefer not to have to contend with (forbidden to gather on punishment of death; dispersions due to persecutions; living 'on the run' from authorities, etc.), yet such circumstances have never closed the church; on the contrary, churches have often thrived under such restrictions. The history of pandemics bears this point out. That is the challenge church history places today's Church with.

11. The Bible mentions that Faith comes by hearing, hearing the Word of God. Science wants reality to be seen as evident through the eyes. The stories were mentioned in the Bible like Joseph, Son of Jacob, helping a king and nation in securing food for the whole world. The scientific world has become less aware of the stories and miracles of God, because many reject God as the Creator of Heaven and Earth. How can we as Christians talk about Biblical prophecy, Eschatology and the saviour God who saves His People during uncertain times?

Response: indeed, the Bible does indicate that Christian faith comes from hearing the word of God (Bible) and by coming to trust in the living Word of God (Jesus Christ, John 1:1-14; Rom. 10:17). It is also true the scientific method aims for the production of empirical evidence. It is true that, as far as Western civilisation is concerned, scientists have become more secular and dismissive of the Biblical accounts and miracles. However, it remains that historically many scientists have also been Christians and they have not seen their faith as being in conflict with their science. There are also many scientists today who have a Christian faith and who see no conflict. One example of this, which is relevant to the pandemic, is Francis Collins, the director of the National Institutes of Health in the USA, which has been at the forefront of addressing the pandemic in that country and globally. Francis also founded the Biologos organisation, which combines science and religion. Francis is also very open about his faith and the Bible. The Faraday Institute, here in Cambridge, that we represent, also exists to demonstrate how collaboratively religion can work with science in today's world.