

Pop science and pop theology: New ways of exploring an old dialogue

Abstract

While the contemporary media scene often reinforces the conflict model of science and religion, it also may offer new opportunities in moving present discussions of science and religion forward. Looking at news reporting, the new priesthood of scientific celebrities, and the universal popularity of *The Simpsons* and *Star Wars*, this paper argues that in the importance of the person, imagination and narrative, the scientist and the theologian can rediscover older and fruitful resources.

Introduction

The historian Peter Harrison argues that the ideas of science and religion are relatively recent compilations that emerged in the west over the course of the past 300 years¹. While his primary focus is classical Greece to the late 19th century, he touches on 21st century popular presentations of science and points out attempts to imbue science with quasi-religious significance. Thus modern creation myths are presented by new atheists in contrast to outdated religious myths which do not rely on the scientific method. These new myths are able to answer the central questions of philosophy and indeed give us moral imperatives such as an environmental ethic. In addition, an eschatology of utopia or dystopia become the domain of scientific prophets.

Just as Harrison has rightly argued that our conception of science and religion in propositional terms is itself a function of a particular historical turn, I want to argue that the rise of a media dominated society adds both simplicity and complexity to the territories of science and religion. The eschatology of utopia or dystopia are strengthened by headline 24 hours, fake news and the digital visual revolution in Hollywood. New atheism has been fed by the clever use of the media by Dawkins, Harris and Hitchens right through to comedians such as Eddie Izzard and Ricky Gervais.

It has become somewhat common for both the church and the scientific community to view the media with suspicion and even a large degree of cynicism. Church leaders complain of bias against the Christian faith, while scientists despair of a headline culture which does not do justice either to the complexity or tentative nature of scientific discovery. With such an attitude, it is easy to have nothing to do with those whose motive is commercialism, whose epistemology is relativism and whose ignorance of science and Christianity is considerable. While the media may give cause for concern, its importance should not be neglected. Indeed it may give opportunities for moving beyond current conceptions.

1. Moving beyond the conflict model

While Colin Russel rightly sums up the view of modern historians, 'The conflict thesis, at least in its simple form, is now widely perceived as a wholly inadequate intellectual framework within which to construct a sensible and realistic historiography of Western science'², it remains dominant in the popular mind and in much of the media presentations of science and religion.

¹ Harrison, P. *The Territories of Science and Religion* (London/Chicago, University of Chicago Press, 2015)

² Russel, C.A. (2002). In Ferngren, G.B., ed. *Science & Religion: A Historical Introduction*. Johns Hopkins University Press. p.7.

The model's popularity grew in large part through its simplicity in communication. Books such as J.W. Draper's *History of the Conflict Between Religion and Science* rewrote scientific and theological history emphasising controversy and conflict. It is this controversy and conflict that appeals to certain sections of the media. Under the defence of balanced debate, BBC's *Newsnight* has often represented science and religion by bringing together extreme minority views of six day creationism and atheistic science. Framing is the process by which a communication source, such as a media organization, defines and constructs a political issue or public controversy³. It attempts to present information to make it relevant to different audiences, to organize central ideas to resonate with core values and to pare down complex issues⁴. This framing of conflict has been used by publishers with many best-sellers such as *The God Delusion* but also at the opposite end of the theological spectrum in creation science and intelligent design. Within the Christian subculture of bookshops and multi-channel TV, religion in warfare with science sells well and raises money.

Moving beyond broadcast media, many today in the face of overwhelming information and non-stop daily news select news outlets and websites whose outlooks match their own. Thus the choosing of sides when an issue is framed in terms of conflict becomes an easy option.

The media producer who claims that 'conflict makes good television' has to be challenged. There are plenty of examples of good television that have nothing to do with conflict, not least in the science communication of David Attenborough in *Blue Planet*. But the changing of an embedded culture of the conflict model takes considerable commitment and strategic intent.

In 1996, Kay and Francis, looked at over 700 young people of age sixteen-years plus, and found a high percentage of belief in scientism⁵. They then drew the following conclusions to combat such scientism. Within mainstream education more attention was needed to help people understand the scientific method and its limits in an early stage; that there was not enough opportunity for cross-disciplinary dialogue in education, and they also pointed the finger at the churches who were not affirming science sufficiently. Key to the continued popularity of the conflict hypothesis is that churches are breeding a culture where science is seen as a threat rather than seen as part of a God given gift of exploration of the world.

The points are well made. First, within the UK context at least, we need to work hard at how science is taught in schools noting it is often taught without reference to history or philosophy. This means a decade long project on developing the curriculum, more immediate resources for science teachers and work with senior leaders in education to convince them of the importance of this. The encouragement of this will be that those pupils who often reject science at school level can retain an interest in science if its philosophy and history is also taught⁶.

Second, in the UK context, how much time is given to cross-curricular education? Pupils specialize early in science or arts and humanities. University students, with the exception of the collegiate universities of Oxbridge and Durham, have little access to interdisciplinary conversation and even at research level interdisciplinary research is perceived to be a disadvantage when it comes to research evaluation⁷.

³ Nelson, T., Clawson, R., & Oxley, Z. (1997). 'Media Framing of a Civil Liberties Conflict and Its Effect on Tolerance'. *American Political Science Review*, 91(3), 567-583

⁴ Nisbet, M.C. and Mopney, C. (2007). 'Framing Science', *Science*, 316, 56

⁵ Kay, W. and L. Francis, *Drift from the Churches*. 1996: University of Wales Press

⁶ Hottecke, D. and Silva, C.C. (2010) 'Why Implementing History and Philosophy in School Science Education is a Challenge: An Analysis of Obstacles', *Sci & Educ* (2011) 20:293-316

⁷ Rafols, I, Leydesdorff, L., O'Hare, A., Nightingale, P., and Stirling, A. (2012) 'How journal rankings can suppress

Yet there is good evidence that interdisciplinary research can contribute to innovation, creativity and addressing societal problems⁸. It can also rejuvenate science and contribute towards its ongoing health⁹. Could churches and theology departments take the lead from sponsoring events in schools to taking the lead in interdisciplinary studies at HE level.

Third, we need to value and teach more history of science and religion. The conflict hypothesis is reinforced in people's minds by a misleading telling of history where Galileo and Darwin are presented as simple battles between the truth of science and the dogma of the church. History is more complex than that. For example, Darwin's own religious position was influenced by deism, respect for his wife and the influence of emerging Old Testament critical scholarship alongside many other things. A desire for truth in science and religion is a battle to be as true to the richness of history as we can and teach it with integrity.

Here the Christian church must do much better in affirming science as a gift from God and its programme of Christian education.

2. A new priesthood

The outpouring of tributes to Professor Stephen Hawking following his death was remarkable in its breadth and depth. His personal story of illness and disability, his wide ranging media appearances in *The Big Bang Theory*, *The Simpsons* and *Star Trek: The Next Generation* and his great ability as a science communicator, reinforced his contributions to relativity, quantum theory and cosmology and thus raised him to a unique place in contemporary culture.

While few in the general public had any knowledge or interest in M-theory, Hawking was sought after for his views on heaven, death, the environment, the existence of aliens and the future threat of AI. The People's Daily, the mouthpiece of China's ruling Communist Party, wrote on Weibo telling its 56.5 million followers to reflect on some of Hawking's quotes on science and life¹⁰.

In the four days after his death, I did 26 media interviews focused on his views on God, many of the interviewers picking up on phrases such as 'mind of God'. I welcomed Hawking's work and contributions. While sometimes as an atheist he fell into a conflict model and displayed real ignorance of philosophy and theology, a close reading of his work on cosmology was helpful in rejecting 'god of the gaps' and a deistic god in the origin of the universe.

Hawking is one of many scientists who form a new priesthood¹¹. Michael Sadgrove pointed out, 'Priests fascinate and make people nervous. We carry hopes and longings, projections and transferences.'¹² He went on to quote Carl Jung who said that a society without priests would be severely impoverished because there would be no-one to reawaken in people the spiritual,

interdisciplinary research: A comparison between Innovation Studies and Business & Management'
<https://arxiv.org/ftp/arxiv/papers/1105/1105.1227.pdf>

⁸ Hollingsworth, R., Hollingsworth, E.J. (2000) 'Major discoveries and biomedical research organizations: perspectives on interdisciplinarity, nurturing leadership, and integrated structure and cultures', in: Weingart, P., N. Stehr, (Eds), *Practising Interdisciplinarity*. University of Toronto Press, Toronto, pp. 215-244.

⁹ Jacobs, J. A., Frickel, S., 2009. Interdisciplinarity: a critical assessment. *Annual Review of Sociology* 35, 43-65

¹⁰ <https://www.reuters.com/article/us-people-hawking-china/hawkings-death-triggers-emotional-goodbyes-tributes-in-china-idUSKCN1GR0SC>

¹¹ Karl Giberson and Mariano Artigas, *Oracles of Science* (New York: Oxford University Press, 2007).

¹² M. Sadgrove, (2004). 'On being a priest' <https://www.durhamcathedral.co.uk/worshipandmusic/sermon-archive/on-being-a-priest>

the imaginative, the humane, the compassionate, the prophetic dimension of life, to be there, publicly, in Blake's words, to open the doors of perception.

There is much to welcome in priests who open the doors of perception. Recently Jon Reynolds has reassessed Arthur Eddington and James Jeans in their historical context and their legacy for the field of science and religion¹³. They were physicists and astronomers of a very high calibre. Eddington's place was secured as early as 1919 when his expedition to Principe provided observations that were key in the acceptance of Einstein's General Relativity. Reynolds also points out that they were the Hawking and Dawkins of their day in terms of their profile in popular culture in books, newspaper articles and radio. By 1937, 139,000 copies of *The Mysterious Universe* by Jeans had been printed by Cambridge University Press and 56,195 copies were sold of Eddington's *The Nature of the Physical World*. This can be compared to 22,000 copies of *Essays and Reviews* (1860)¹⁴. Reynolds argues rightly that these books helped move the general public on from a Victorian, mechanistic, deterministic and naïve view of science to a more nuanced understanding of physics from the sub-atomic world to the universe at large.

More subtle was their influence as apologists for the Christian faith and a more nuanced view of science and religion in years following the Darwinian controversies. Eddington as a Quaker and Jeans as a middle of the road Anglican embodied in their academic and public profile a subverting of any conflict model. Indeed it could be argued that their role in the interwar period contributed to the resistance to the rise of creationism which was becoming so much part of North American culture.

Yet many of the priests of modern science communication take a very different line on religion. Hawking, Dawkins, Krauss, Sulston and Kroto are now joined with another kind of priest in popular culture. This is a group of stand-up comedians who have been heavily influenced by new atheism and shape popular culture on television and on the web. Ricky Gervais, Eddie Izzard, Bill Maher, Louis CK, George Carlin, Dara O'Brien are highly popular, and often use science to pick apart the absurdity of religion as they see it.

Now one of the problems of priests has been the combination of a sense of importance coupled with ignorance! This has been true of church leaders who feel that they wander into a media setting and can pronounce on any subject under the sun. It is also true for the new priesthood. There is little evidence of an understanding of science and religion in their historical complexity and fruitfulness. Such ignorance resonates with a western culture which is largely biblically and scientifically illiterate.

Fame and celebrity are at the heart of the contemporary mass media where some people are just famous for being famous. Television, radio and newsprint tell their stories with reference to the personal, focusing on the individual at the heart of the story or the individual affected by the story, even if this is in the most trivial way.

From the Christian perspective this is both an encouragement and a challenge. Christians may need to re-learn the importance of the person. The Christian faith is based on incarnation: that is the coming to earth of God in human form. The person is central to the communication and

¹³ J. Reynolds. 'Popular Theology from Popular Scientists: Assessing the Legacy of Eddington and Jeans as Apologists' (PhD thesis, Durham University, 2017).

¹⁴ Whitworth, M. 'The Clothbound Universe: Popular Physics Books, 1919-1939' *Publishing History* 40 (1996), 53-82..

so the media itself, by focusing on the person, is not the anti-Christ. It is picking up on something that is fundamental to the creation of the Universe itself.

In practical terms, the centrality of the person in the media reminds us of the importance of testimony and the fact that some may be particularly gifted to communicate in the media. The outstanding theologian may not be the best media communicator. The Bishop may need to defer to the scientist who is a Christian.

3. New narratives of science and religion

While stereotypes of science and religion continue to be present in the media, pop culture can subvert them in lots of interesting ways. *The Simpsons* combine anarchic adventurers but also the most regular church attenders on television¹⁵. It explores science and it explores theology by using comedy to question certain assumptions¹⁶.

It seems to me that to explore questions of truth we need to hold together intellect and imagination. The astrophysicist Lawrence Krauss has written a fun book on the physics of Star Trek¹⁷. He justifies such a project by noting that in an informal campus survey the number of people who did not recognise 'Beam me up Scotty' was comparable to the number of people who had never heard of ketchup! Alongside its popularity, Krauss argues that 'Star Trek is a natural vehicle for many people's curiosity about the universe', and he is joined by Stephen Hawking, who in a foreword to the book, suggests, 'Science fiction like Star Trek is not only good fun but it also serves a serious purpose, that of expanding the human imagination'.

Pop culture often draws you into a world where the imagination is stretched and stimulated. This may give alternative ways to think about science and religion. NASA has been extremely good at using pictures from the Hubble space telescope to excite people about science and the exploration of the Universe.. The vastness and the beauty of the Universe can be communicated so powerfully through the visual image. The visual is very important in holding together imagination and intellect. Kepler spoke of joy and being ravished at the creation. How do we in presenting the relationship of science and religion use the visual in a way that stimulates people to think more, and does our communication of truth excite them and fill them with joy?

Imagination and intellect is often held together by the use of narrative. This occurs in many different elements of the relationship between science and religion, for example in the discussion of the nature of time. Paul Ricoeur writes, 'Speculation on time is an inconclusive rumination to which narrative activity alone can respond'¹⁸. Philosophers such as Richard Swinburne and Sidney Shoemaker use story to talk about the nature of time, while astronomers and physicists have often used stories to speak about time in terms of twin paradoxes. Of course a huge number of movies, some which are good and some that are just downright awful, have also explored the nature of time.

More directly there are narratives of the relationship of science and religion. George Lucas, the creator of *Star Wars*, attributes its nature and popularity to it being like an ice-cream sundae.

¹⁵ Pinsky, M.I. (2002). *The gospel according to The Simpsons: The spiritual life of the world's most animated family*. Louisville, Kentucky: Westminster John Knox Press.

¹⁶ Halpern, P. (2007) *What's Science Ever Done for Us?: What the Simpsons Can Teach Us About Physics, Robots, Life, and the Universe*, John Wiley & Sons

¹⁷ Krauss, L.M., *The Physics of Star Trek*, (London: Flamingo, 1997).

¹⁸ Ricoeur, P., *Time and Narrative*. 1984, Chicago: University of Chicago Press. 122.

That is, it is a combination of lots of different and attractive features. First, it contains myth, using a common store of images, symbols and stories, so that Luke Skywalker follows the classic journey of the hero. Second, there is the Western, recreating for Hollywood the Western genre but this time in outer space. Thus Han Solo becomes the gunslinger on the frontier. Third, Star Wars is full of the science fiction styling and stories of Lucas' fascination with the comic strips of Flash Gordon and Buck Rogers. Fourth, this is a story reflecting the Space Age and the period following Neil Armstrong's small step onto the Moon. Finally, Lucas borrows heavily from Samurai movies, especially Akira Kurosawa's *The Hidden Fortress* (1958). Now on top of these elements Star Wars liberally sprinkles little bits of religion, for example *The Empire Strikes Back* encompasses a number of Buddhist themes.

The danger for the theologian is to focus immediately on these religious quotes and images, and thus Star Wars has been characterised as Buddhism, New Age or even a Christian allegory. But more importantly, the ice cream sundae of Star Wars is held together by big questions concerning hope, good and evil and transcendence. Rather like the glass which contains the different kinds of ice-cream and chocolate, these big questions give the story an attraction.

In discussing the question of transcendence, Lucas comments, "I would hesitate to call the Force God. It's designed primarily to make young people think about mystery. Not to say, 'here's the answer'. It's to say 'Think about this for a second. Is there a God? What does God look like? What does God sound like? What does God feel like? How do we relate to God?'"¹⁹.

Now these narratives need careful handling. Cooper and Skrade encourage us to be open to film in a way that allows it to charm, enlighten and disturb us²⁰. Theological engagement needs careful attention to its genre, its nature as art and the deeper questions it poses. Further we need what Michael Dyson calls 'ethical patience'²¹, that is the tendency to go off and make ethical judgements before we have heard the whole of the story.

Stories abound in the mass media. The use of such stories brings questions of truth into the everyday world.

Conclusion

There is much more to be said about the media and our reaction to it. In recent work on the attitudes of senior church leaders towards science, we have identified the language of 'good' and 'bad' science²², which may have an interesting conversation with Harrison's vocabulary of true religion in the writings of some of the church fathers²³. If true religion is about whether worship was rightly directed, church leaders use the vocabulary of good and bad science in relation to whether science discloses God or attacks God.

However, in this paper, I have made a plea to take the opportunities presented by the media seriously and to learn from them. Focusing on the person, pop culture, the importance of the imagination may give new resources in re-thinking and re-forming science and religion.

¹⁹ Moyers, B. & G. Lucas, 'Of Myth and Men', *Time*, 26 April 1999.

²⁰ Cooper, J.C. and Skrade, C., *Celluloid and Symbols*, (Philadelphia: Fortress Press, 1970).

²¹ Dyson, M., *Holler If You Hear Me: Searching for Tupac Shakur*. (London: Plexus, 2001).

²² Bouveng, R., Wilkinson, D. (2016) 'Going beyond the How and Why of Science-Religion? Senior Christian Leaders on Science and Personal Faith', *Science and Christian Belief*, 28, (2), 100-115

²³ Harrison, P. *The Territories of Science and Religion* (London/Chicago, University of Chicago Press, 2015) p.8