

Paper

Science and Religion: how can the Bahá'í Faith contribute to the existing discourse?

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Abstract

If we are to contribute to the extensive public discourse concerning the relationship between science and religion, we must first understand that discourse. This article offers an overview, looking at how perceptions of the history of the relationship effect the current discourse, the development of conflict, the growth of participation in a constructive discourse, and sociological studies to understand public attitudes. Some of the new and different contributions offered by the Bahá'í teachings are described, including discussion of the timing of the Bahá'í revelation, its explicit messages about science when these could be understood, explicit teaching about interpretations of scripture, a practical description of spirituality, an emphasis on diversity and the independent investigation of truth, and what is meant by harmony. A case is then presented that a much better public understanding of the methods and philosophy of science is necessary to enable the achievement of harmony in practice.

Introduction

The future prosperity of mankind depends on both science and religion. 'Abdu'l-Bahá states emphatically that we need both and that they depend on each other, that religion without science leads into "*the quagmire of superstition*" and that science without religion leads into "*the despairing slough of materialism*".¹ Both problems are evident in the world today. To bring about harmony we need a thorough understanding of the different components of existing public discourse that has led to this divergence.

A brief outline summary of the entangled² histories of science and religion over the last two or three millennia provides an essential framework for the discussion that follows. The relationship has been one of neither constant conflict nor constant harmony but something much more complex. However, whatever the reality, it is how that history is perceived now that impacts the current relationship. Although rejected by modern historians, there is a popular perception that there has always been conflict between religion and science, and this negatively influences the current discourse. A description of the emergence of that conflict thesis leads into examples of the development of scientism (metaphysical naturalism), and the rise of fundamentalism in the Christian world. More constructively, there has been a significant expansion in the positive discourse involving prominent scientists and theologians, and the emergence of many

¹ 'Abdu'l-Bahá, *Paris Talks*, no. 44, <https://www.bahai.org/library/authoritative-texts/abdu-l-baha/paris-talks/5#885299221> [accessed 18 December 2025]

² Nicholas Spencer, *Magisteria: The Entangled Histories of Science and Religion*, (London: Oneworld Publications, 2023)

organisations dedicated to its progress. The thoughts of specialist scholars are important, but we also need to understand public perceptions. Beyond simplistic surveys, a more nuanced understanding of people's attitudes is now becoming available through academic networks for the sociological study of science and religion. The findings of some large scale and academically rigorous studies may help us to formulate strategies that will lead towards harmony in practice.

The Bahá'í teachings offer much that is new. Coming after the scientific and industrial revolutions, the Bahá'í writings talk explicitly about science³ in a way that previous Manifestations could not. As will be shown, Bahá'u'lláh and 'Abdu'l-Bahá repeatedly tell us that scripture uses material concepts to describe the spiritual, and that we must not interpret scripture in a way that conflicts with reason. The absence of a separate classes of priests or theologians and an emphasis on independent investigation may lead to better education for the majority. Recognition of the importance of diversity of input to scientific research has increased over recent decades. Bahá'ís would applaud this, emphasise the value of consultation, and argue that spiritual qualities are essential to good science. Equally obvious to Bahá'ís is the answer to the question of what the practice of science should serve. We cannot pretend that there are no difficult issues however. The subject of human evolution, a cause of conflict particularly in Christian and Islamic worlds, has presented some difficulties within the Bahá'í community.

To achieve harmony, to enable science to work in partnership with religion for the betterment of the world, Bahá'ís will need to demonstrate knowledgeable support of science, requiring universal education, not in the details of current theories but in how science works. This will enable informed choices and the ability to explain why religion needs science and science needs religion.

An Extremely Brief History

Science and religion did not exist in the same form in the past as we think of them now; they occupied quite different territories of human thought.⁴ The philosophy of Ancient Greece, for example, while important for the development of modern science, differed from the modern natural sciences in terms of its motivation, its methods, and the range of questions addressed. Its practice was more about preparing the mind than acquiring knowledge for its own sake.⁵

Science and religion can be referred to as two bodies of knowledge, but this does not necessarily mean two bodies of the same type of knowledge. While many may explain their religion in terms of a set of beliefs, others may think much more in terms of a way of life or a state of mind.⁶ As ways of thinking have changed, so has the usage of words. In the past, the Latin *scientia* was more generally used for any systematic body of knowledge, and the Arabic *ilm* has also referred to knowledge in a wider sense than modern natural sciences. It is important to recognise that

³ There are a very large number of explicit and often extended references to science in 'Abdu'l-Bahá's writing and talks, including from *Paris Talks*, no. 44, or "*Among other principles of Bahá'u'lláh's teachings was the harmony of science and religion. Religion must stand the analysis of reason.*" in *The Promulgation of Universal Peace*, 9 June 1912, <https://www.bahai.org/library/authoritative-texts/abdu-baha/promulgation-universal-peace/13#980687897> [accessed 18 December 2025]. An electronic search of 'Abdu'l-Bahá's writing and talks in the Bahá'í Reference Library (<https://www.bahai.org/library/authoritative-texts/abdu-baha/> [accessed 18 December 2025]) yields 258 results for the word science and 160 results for the word scientific.

⁴ Peter Harrison, *The Territories of Science and Religion* (Chicago: University of Chicago Press, 2015)

⁵ Ibid, pp. 26-33.

⁶ Moojan Momen, *Understanding Religion* (London: Oneworld Publications, 2009), Ch. 1; Peter Harrison, *'Religion' and the religions in the English Enlightenment* (Cambridge: Cambridge University Press, 1990)

science and religion are not two simply defined homogeneous categories. Both are human activities and there have always been many competing opinions expressed within each.

Ancient Greek philosophy, including astronomy, medicine, and mathematics, building on learning from Egypt, Babylonia and India, developed alongside a belief in a pantheon of gods. While monotheistic Christianity supplanted the pantheons of Greek and Roman gods, it was greatly influenced by Greek philosophy, which provided intellectual tools for apologetics and biblical exegeses. However, the splitting of the Roman Empire and the ensuing political and social instability led to Western Europe losing contact with much of Greek natural philosophy and mathematical sciences.

From the 8th century onwards, Neo-Platonism, and later the works of Aristotle, had a profound impact of the thinking of many Islamic polymaths who, building on extensive translations into Arabic of numerous texts drawn from other parts of the world, laid essential foundations for many branches of the natural sciences⁷ and the development of scientific methods. Contact between Christian and Islamic worlds led to a second translation movement, starting in the 10th century, first from Arabic to Latin and later from Greek to Latin. Commentaries on Plato and Aristotle, written by Ibn Sina (Avicenna) and Ibn Rushd (Averroes) were used extensively,⁸ having a profound effect on Christian theology and natural philosophy. By the start of the 13th century, the medieval universities of the Latin West were becoming established, and were now able to build on the scientific advances of the Islamic world, facilitated by the advocacy of methodological naturalism (as opposed to metaphysical naturalism) of 12th century philosopher theologians, such as William of Conch,⁹ who, while affirming God as ultimate cause, saw God as working through natural laws which should be investigated rather than resorting to an assumption of miracles.

With the work of Francis Bacon (1561-1626), Galileo Galilei (1564-1642), and Rene Descartes (1596-1650), among others, the natural sciences, mainly physics at that stage, started to separate from philosophy. This was not an instant process. Isaac Newton (1643-1727) would have called himself a mathematician or a natural philosopher but he would not have described himself as a scientist, an appellation first coined in 1833. Before the Enlightenment, none of these natural philosophers would have regarded science as something to be studied separately from religion. While there was open disagreement about how to read the “two books,” God’s words and God’s works (interpreting scripture in the face of reason and observation of the material world), the idea of a general conflict between scientists and religious authorities was not yet evident.

During the Enlightenment,¹⁰ with its confidence in human reasoning, major developments in the natural sciences were accompanied by scientific analysis of religion and questioning of religious orthodoxies by non-conformist movements, focused on religious practice. This was also the time of Robert Boyle (1627-1691) seeing scientific research as a form of worship, and the natural theology of John Ray (1626-1725) and William Paley (1743-1805),¹¹ seeing the wonders of nature as evidence of the divine.

⁷ David C. Lindberg, *The Beginnings of Western Science*, 2nd Ed (Chicago: University of Chicago Press, 2007), Ch. 8

⁸ Edward Grant, *The Foundations of Modern Science in the Middle Ages* (Cambridge: Cambridge University Press, 1996), Ch. 2

⁹ Lindberg, *The Beginnings of Western Science*, pp. 210-214

¹⁰ Harrison, *‘Religion’ and the religions in the English Enlightenment*

¹¹ John Hedley Brooke, *Science and Religion, Some Historical Perspectives* (Cambridge: Cambridge University Press, 1991), which contains multiple references to Boyle, Ray and Paley.

The Emergence of the Conflict Thesis

As the practice of the natural sciences separated further from religious institutions in the 19th century, the nature of the discourse changed. Auguste Comte's (1798-1857) positivism,¹² Karl Marx's (1818-1851) dialectical materialism,¹³ and Sigmund Freud's (1858-1898) dismissal of religion as illusion¹⁴ all played a part in creating the view that faith was incompatible with rational science. Both to support this view and to assert independence from ecclesiastical authority, it became desirable to write history to show that religion had always impeded science. Two books published in America, *A History of the Conflict between Religion and Science*¹⁵ (1874) by John William Draper and *A History of the Warfare of Science with Theology in Christendom*¹⁶ (1896) by Andrew Dickson White, were widely read, very influential, and are regarded as the foundation of the conflict thesis. Modern historians of science reject this conflict thesis, subscribing to a complexity thesis as argued for in 1991 by John Hedley Brooke,¹⁷ but the conflict thesis lives on in public perceptions.

Galileo's trial is a good example of how the conflict thesis has been established in many people's minds through a distorted description of actual events. In popular versions, Galileo was persecuted by an obscurantist Roman Catholic church for espousing the Copernican heliocentric model of the solar system, in opposition to the previously accepted geocentric model, in his *Dialogue Concerning the Two Chief World Systems* (1632)¹⁸. However, we should note that Copernicus's work, *On the Revolutions of the Heavenly Spheres*, had gone uncensored and was widely read¹⁹ from its publication in 1543 until 1616. Pope Urban VIII had, as Cardinal Barberini, been Galileo's supporter and protector for many years, and Galileo had discussed with him the book he planned before publication. We should ask why the Pope felt stabbed in the back by an old friend. After his trial in 1633, Galileo went to stay with an old friend, the Archbishop of Siena, for six months, before returning to house arrest in his own mansion. Over the next five years he published his final and probably most useful contribution to science, *The Discourses and Mathematical Demonstrations Relating to Two New Sciences*.²⁰ The Catholic Church did find Galileo "vehemently suspect of heresy", and it did pronounce on scientific theories in its desire to assert its authority, but the context was more complex than commonly portrayed.²¹

¹² Auguste Comte, *A General View of Positivism*, 1848, Trans. John Henry Bridges, <https://www.gutenberg.org/ebooks/53799> [accessed 18 December 2025]

¹³ Karl Marx, *Capital* [1867–1894], reprint (Ware, Hertfordshire: Wordsworth Editions, 2013)

¹⁴ Sigmund Freud, *The Future of an Illusion*, [1927], reprint (Mansfield Centre, CT: Martino Fine Books, 2015)

¹⁵ John William Draper, *History of the Conflict Between Religion and Science*, (Project Gutenberg, 1874), <https://www.gutenberg.org/ebooks/1185> [accessed 18 December 2025]

¹⁶ Andrew Dickson White, *A History of the Warfare of Science with Theology in Christendom* (Project Gutenberg, 1896), <https://www.gutenberg.org/ebooks/505> [accessed 18 December 2025]

¹⁷ Hedley Brooke, *Science and Religion, Some Historical Perspectives*

¹⁸ Galileo Galilei, *Dialogue Concerning the Two Chief World Systems*, Trans. Stillman Drake (New York NY: Modern Library, 2001)

¹⁹ Owen Gingerich, *The Book Nobody Read: In Pursuit of the Revolutions of Nicholas Copernicus* (London: Heinemann, 2004). The title is intentionally ironic.

²⁰ Galileo Galilei, *The Discourses and Mathematical Demonstrations Relating to Two New Sciences*, Trans. Henry Crew and Alfonso de Salvio (New York NY: The MacMillan Co., 1914)

²¹ J.L. Heilbron, *Galileo* (Oxford: Oxford University Press, 2010)

Opposing Fundamentalisms

Building on the positivism of August Comte, the belief that science can answer every meaningful question we could ask was further developed by the Logical Positivists of the Vienna and Berlin circles in the opening decades of the twentieth century. Central to this was the verification principle, expressible as: a statement can have meaning only if it is either true by virtue of its own meaning or logical form, a tautology, or if a means can be identified of verifying it empirically, by sense experience. The principles of Logical Positivism were expressed with great clarity by A J Ayer in 1936. He declared that all metaphysical thought was nonsense, that the argument from religious experience is “altogether fallacious”,²² and he denied normative morality, arguing that the sentence “*Stealing money is wrong*,” is simply a statement of feeling “*which has no factual meaning*”.²³ His explicit statement of the position known as scientism (or metaphysical naturalism) could not be expressed more clearly:

There is no field of experience which cannot, in principle, be brought under some form of scientific law, and no type of speculative knowledge about the world which is, in principle, beyond the power of science to give²⁴.

Logical Positivism is now regarded by philosophers as superseded, and A J Ayer himself agreed that much of it was false in a 1977 televised interview.²⁵ However, scientific materialism and reductionism retain widespread support.²⁶

Conversely, within Christianity, modern fundamentalism originated largely in the USA, a key stage being the publication of *The Fundamentals: A Testimony to the Truth*²⁷ between 1910 and 1915 by the Testimony Publishing Company of Chicago. In reacting against historical or “higher” criticism of scripture and what was seen as excessively liberal thinking, this movement led to a greater emphasis on a literal interpretation of the Bible.

The Recent Constructive Discourse

From the middle of the twentieth century, there has been a very significant growth of constructive discourse, often involving writers with significant academic qualifications in both science and religion. Ian Barbour (1923-2013) published *Issues in Science and Religion*²⁸ in 1966, described by the John Templeton Foundation as a book that “*has been credited with literally creating the contemporary field of science and religion*.”²⁹ The John Templeton Foundation itself, formed in 1987, has played a major role through the financial support it has given to enabling scholarly contributions to the

²² A J Ayer, *Language Truth and Logic*, [1936], reprinted (London: Penguin Books Ltd, 2001), pp. 126

²³ Ibid. p. 110

²⁴ Ibid. p. 32

²⁵ *Logical Positivism & its Legacy – A. J. Ayer & Bryan Magee* (YouTube video, uploaded by *Philosophy Overdose*, 5 Apr. 2022), <https://www.youtube.com/watch?v=gBSUMC3CqGg> [accessed 18 Dec 2025]

²⁶ See reference to Paul Lample’s analysis in conclusion.

²⁷ Reuben Archer Torrey and Alan C. Dixon (eds), *The Fundamentals: A Testimony to the Truth* (Chicago: Testimony Publishing Company, 1910–15)

²⁸ Ian Barbour, *Issues in Science and Religion* (Englewood Cliffs, NJ: Prentice-Hall, 1966)

²⁹ Biography from John Templeton Foundation (1999) Ian Graeme Barbour, Online NewsHour, https://web.archive.org/web/20080122050215/https://www.pbs.org/newshour/forum/june99/barbour_bio.html [accessed 18 December 2025]

discourse.³⁰ The UK discourse has inevitably been dominated by Christian writers. However, Chief Rabbi Jonathan Sacks writes of a “Great Partnership”,³¹ inspired by the writings of Ibn Rushd (Averroes, 1126-1198), Muslim Professor of Physics and Astronomy Nidhal Guessoum argues that evolutionary theory does not contradict core Muslim beliefs,³² and the Dalai Lama describes the biannual meetings he hosts to bring together scientists from various disciplines:

My confidence in venturing into science lies in my basic belief that as in science so in Buddhism, understanding the nature of reality is pursued by means of critical investigation: if scientific analysis were conclusively to demonstrate certain claims in Buddhism to be false, then we must accept the findings of science and abandon those claims.³³

Over recent decades an increasing number of organisations have fostered this constructive discourse. In Western Europe and North America, this started as a dialogue between Christianity and science but has started to broaden to include other faiths. *Zygon: Journal of Religion and Science*³⁴ has been published since 1966, and the (Christian) Science and Religion Forum³⁵ was formed in 1975. Links to many other organisations can be found on the website of the *Interdisciplinary Encyclopaedia of Religion and Science*,³⁶ edited by the Advanced School for Interdisciplinary Research in the Pontifical University of the Holy Cross, founded in 2003. The Ian Ramsey Centre for Science and Religion at the University of Oxford was formed in 1985.³⁷ The Faraday Institute for Science and Religion at the University of Cambridge, formed in 2006, runs many courses and conferences and has released a large number of high-quality lectures on YouTube.³⁸ The International Society for Science and Religion established in 2002, boasts that, in addition to atheists, its membership includes “representatives from a variety of faith traditions including Buddhism, Hinduism, Judaism, and Islam in addition to Christianity”.³⁹ (No Bahá'í membership is mentioned yet.) The growth of this constructive discourse is extremely encouraging, but much of the discourse in the above organisations remains academic. The loud voices of conflict have reached much of society, but this more complex discourse is not so widely heard.

³⁰ The Templeton Prize, *TempletonPrize.org*, <https://www.templetonprize.org/> [accessed 18 Dec 2025]

³¹ Jonathan Sacks, *The Great Partnership* (London: Hodder & Stoughton, 2011)

³² Nidhal Guessoum, *Islam's Quantum Question: Reconciling Muslim Tradition and Modern Science* (London and New York: I.B. Tauris & Co Ltd, 2011)

³³ The Dalai Lama, *The Universe in a Single Atom: How Science and Spirituality Can Serve Our World* (London: Abacus, 2006)

³⁴ *Zygon: Journal of Religion and Science*, <https://www.zygonjournal.org/> [accessed 18 Dec 2025]

³⁵ Science and Religion Forum, <https://www.srforum.org/> [accessed 18 Dec 2025]

³⁶ INTERS, <https://inters.org/> [accessed 18 Dec 2025]

³⁷ Ian Ramsey Centre for Science and Religion, <https://www.ianramseycentre.ox.ac.uk/> [accessed 18 Dec 2025]

³⁸ Faraday Institute for Science and Religion, <https://www.faraday.cam.ac.uk/> [accessed 18 Dec 2025]

³⁹ International Society for Science and Religion, <https://www.issr.org.uk/> [accessed 18 Dec 2025]

Sociological studies of the current relationship

A 2022 UK survey,⁴⁰ carried out for Christian think tank THEOS, reported that approximately one third of the adult UK population agreed with the statement “science has disproved religion”. A little over a third of the population disagreed, leaving nearly a third apparently unsure. The 2019 British Social Attitudes Survey reported 52% as having no religion and reports a “*significant strengthening of public support for science as a way of understanding and interpreting the world*”.⁴¹ The 2021 UK national census gave a different figure, reporting 37% self-identified as having no religion. Globally, the Wellcome Global Monitor 2018⁴² reports that among people with a religious affiliation, more would agree with religious teachings than with science⁴³, and that perception of conflict was greatest in the North America and Southern Europe, the regions with the lowest rates of religious affiliation. These numbers lack consistency and do not explain the responses.

We need to know how those religious people who reject the results of science regard their own scripture and what they understand scientific processes to be. We need to ask more searching questions about what both religious adherents and religion rejecting scientists understand of the philosophy of science and the wide range of religious beliefs, and what they understand religious faith to be. Exploring how people perceive the relationships between sciences and religions is the subject of academic sociological studies, as supported through organisations such as the Network for the Sociological Study of Science and Religion (NSSSR), established in 2011 to “*promote empirical research on the relationship between science and religion. While historians, theologians, and philosophers have done impressive work on this topic, we believe that sociology, with its distinctive theoretical frameworks and methodological tools, has much to add to this important area of inquiry*”.⁴⁴ Membership of this network currently consists mostly of academics from American universities. Overlapping with the NSSSR, but with a wider international membership and projects starting in 2020, is the International Research Network for the Study of Science and Belief in Society.⁴⁵

Three major studies, led by Professor Elaine Ecklund at Rice University, Texas, have investigated:

1. Views of 1700 natural and social scientists in American universities⁴⁶
2. How more than 10,000 religious Americans view science⁴⁷

⁴⁰ The Nones: Who are they and what do they believe?, *Theos Think Tank*, <https://www.theosthinktank.co.uk/research/2022/10/31/the-nones-who-are-they-and-what-do-they-believe> [accessed 18 Dec 2025]

⁴¹ British Social Attitudes 36: Key findings from the 2019 survey, *NatCen Social Research*, https://bsa.natcen.ac.uk/media/39363/bsa_36.pdf [accessed 18 Dec 2025]

⁴² Wellcome Global Monitor 2018, *Wellcome Trust*, <https://wellcome.org/reports/wellcome-global-monitor/2018> [accessed 18 Dec 2025]

⁴³ Ibid. Ch. 4

⁴⁴ Network for the Sociological Study of Science and Religion, *NSSSR*, <https://www.nsssr.org/> [accessed 18 Dec 2025].

⁴⁵ International Research Network for the Study of Science and Belief in Society, <https://scienceandbeliefinsociety.org/> [accessed 18 Dec 2025]

⁴⁶ Elaine Howard Ecklund and Christopher P. Scheitle, *What Scientists Really Think* (Oxford: Oxford University Press, 2010)

⁴⁷ Elaine Howard Ecklund and Christopher P. Scheitle, *Religion vs. Science, What Religious People Really Think* (Oxford: Oxford University Press, 2018)

3. How more than 20,000 scientists in university physics and biology departments in 8 different regions in the world engage with religion⁴⁸

In all three, detailed questionnaires were supplemented by hundreds of one to one interviews.

The first two of these studies, restricted to the USA, dispels many conflict myths while nevertheless demonstrating a significant gap in understanding between religious people and scientists. What follows here is a summary of some of the study conclusions. Sciences, particularly related to evolution, can be taboo or rarely discussed topics in churches and even though congregations may include many scientists the majority may be unaware of them. Similarly, religion is rarely discussed within the scientific workplace. Where scientists are not religious this can be linked to having been brought up in a household where they have had no experience of religion, or in a religious environment that discouraged asking questions. Where scientists are religious, they tend to have thought deeply about their religion and often emphasise what they see as core principles and retaining a questioning approach. Religious people seem to trust science as much as non-religious people, but public trust in *scientists* as a people group is eroding. For some groups, the belief that all scientists are loud anti-religious atheists is a part of their distrust. Where conflict is most visible, is related to creationism and topics around reproductive genetic technologies, such as vitro fertilisation and human embryonic stem-cell research, seen as “playing God.” Attitudes are not necessarily a straightforward matter of literal interpretation of scripture versus the current thinking of evolutionary biologists. Religious people can be reacting to a broader perception of science as leaving no place for God.

And we show too that most Americans are surprisingly flexible in their views of creation and evolution. Often, details such as the age of the earth are not that important to them. What is most important are the theological implications – that the broad narrative of life’s origins and development leaves room for an active God and respects the scaredness of humanity.⁴⁹

Data from the third survey, with responses from scientists in the USA, UK, France, Italy, Turkey, India, Taiwan and Hong Kong, shows that discourses in different parts of the world have some significant differences and some common features. Scientists engaged as academics in leading research universities are, on average, less likely to describe themselves as religious than the general population, except in Hong Kong and Taiwan where this trend is reversed. The most visible conflict is in the USA and the UK, France is the most secular, positive papal recognition of evolutionary theory probably accounts for less conflict in strongly Catholic Italy, and science and religion seem to more intimately entwined in India. The situation in Turkey may be changing as it becomes less secular.

Both the first and third studies show that there are many scientists working in leading research universities who consider themselves to be religious but keep their religion quiet, feeling, with some justification, that colleagues will suspect that their religious beliefs will make them biased and unable to follow scientific evidence objectively. Many scientists assume that there are fewer colleagues who are religious than there actually are. The most common non-conflict view

⁴⁸ Elaine Howard Ecklund et al., *Secularity and Science: What Scientists Around the World Really Think About Religion* (Oxford: Oxford University Press, 2019)

⁴⁹ Ecklund and Scheitle, *Religion vs. Science, What Religious People Really Think*, p. 7

expressed by religious scientists is that of non-overlapping magisteria (NOMA).⁵⁰ This can be seen as simple independence in which religion and science are treated as separate compartmentalised parts of a person's life.

*Science and Religion Exploring the Spectrum: A MultiCountry Study on Public Perceptions of Evolution, Religion and Science*⁵¹ was a multidisciplinary project headed by Prof. Fern Elsdon-Baker at the University of Birmingham,⁵² concluding in 2023. This work draws attention to the background assumptions of those who write survey questionnaires. If questions are framed with an assumption of conflict, this can manufacture a perception of more conflict than really exists. People questioned have not necessarily studied theories of evolution and their responses often reflect choices of social identity rather than independent analysis. We need to regard the headline figures from simple questionnaire-based surveys with caution: people's views are probably rather less entrenched than suggested. There certainly is conflict, but while we know the thoughts of those who write and speak vehemently on one side or the other, the views of the quieter majority are less clear and often more flexible. There is one overriding conclusion: in conversations with people about science and religion, we should not make assumptions about what they understand, what they believe, or why they believe what they believe.

Explicit References to Science in Bahá'í Teaching

The advent of the Bahá'í revelation in the middle of the nineteenth century coincides with a growth in the technical applications of science, particularly the development of a global communications. It was now possible for mankind to understand Bahá'u'lláh talking about a global community,⁵³ and to understand references to science⁵⁴ in a way that would have been previously incomprehensible. While the need to reconcile revelation and reason has been expressed many times in the past by influential thinkers such as St Augustine, Thomas Aquinas,⁵⁵ Ibn Rushd (Averroes), and Maimonides,⁵⁶ these have not been central figures. However, the harmony of science and religion, framed in a modern sense, is explicitly taught by the central figures of the Bahá'í Faith.

The current constructive discourse about science and religion is concerned with describing the relationship, implying that the relationship can and should be a positive one. The Bahá'í Faith goes further. It explicitly states that the relationship must become one of harmony, and that this is essential for the future prosperity of humankind. Bahá'ís are therefore required to support efforts to achieve that harmony. We need to clarify what we mean when we talk of science and religion

⁵⁰ The term magisteria derives from the Latin for teacher, magister, so NOMA means non-overlapping teaching.

⁵¹ Science and Religion: Exploring the Spectrum 2 the Global Perspective (SRES2), *University of Birmingham Research Projects*, <https://research.birmingham.ac.uk/en/projects/science-and-religion-exploring-the-spectrum-2-the-global-perspect> [accessed 18 Dec 2025]

⁵² Fern Elsdon-Baker and Bernard Lightman, Ed, *Identity in a Secular Age: Science, Religion and Public Perceptions* (Pittsburg PA: University of Pittsburgh Press, 2020)

⁵³ "The earth is but one country, and mankind its citizens", *Tablets of Baha'u'llah*, <https://www.bahai.org/library/authoritative-texts/bahauallah/tablets-bahauallah/5#403173768> [accessed 18 December 2025]

⁵⁴ See footnote 3.

⁵⁵ F.C. Coppleston, *Aquinas: An Introduction to the Life and Work of the Great Medieval Thinker* (London: Penguin Books Ltd, 1991)

⁵⁶ Jonathan Sacks, *The Great Partnership* (London: Hodder & Stoughton, 2010), p. 268

being in harmony. It does not mean that they should be seen as the same thing. As Farzam Arbab writes: “*Religion and science are clearly not the same, or it would be absurd to talk about harmony between them*”.⁵⁷ Consider one analogy suggested by the word harmony, that of two singers singing in harmony. This does not mean singing the same notes, nor of course does it mean singing two unrelated tunes. It means two singers listening to each other, and singing notes that complement each other.

We should not underestimate the size of our task. A very poor public understanding of how science works presents a major challenge. Even those who have worked for whole careers in the field can have a surprisingly weak grasp of the history and philosophy of science in general. As Farzam Arbab points out:

Widely held perceptions of science are based on notions that have, in recent decades, been proven either wrong or extremely inadequate. These notions are held not only by the majority of the world's peoples, who see the magical results of scientific progress, but also by those who are engaged in narrow scientific activity without feeling the necessity to reflect in any depth on the nature of science and its offspring, modern technology.⁵⁸

If degree programs in the natural sciences include little of the history and philosophy of science, this is not surprising. Scientists can dismiss philosophy if they are aware only of the ideas of past philosophers that have been superseded by modern science, or know little of recent developments in the philosophy of science. Still less do those who are not practising scientists understand how science is carried out.

It is sometimes asserted that science is based on proof, while religion is not, but we need to question the nature of that proof and understand the differences between deduction, induction, and abduction (inference to the best explanation). Although deduction is used to make predictions, no scientific theory is proved by deduction. All scientific theories are provisional, open to revision in the face of new evidence. It may be better to think in terms of scientific consensus and the process by which it is reached, how hypotheses become theories accepted by the majority of a scientific community after repeated empirical studies, discussion and challenge at conferences, and reviews of multiple peer reviewed academic papers.

Reading Scripture as Science, and Understanding the Spiritual Through Metaphor

A common perception is that religious believers consider their revealed scripture as providing explanations, particularly of creation, that are to be taken literally as equivalent to historical and scientific accounts. This perception has considerable implications for how religious scientists are perceived by colleagues in the workplace, and is reinforced by religious believers who loudly and vehemently express these views. Such accounts in scripture often differ from the empirical evidence-based explanations provided by modern science. Believers in scientific processes can regard those creation stories as simply meaningless and reject the rest of scripture by association. Around 400 CE, when Christians were trying to spread the teachings of Jesus, the Manifestation of God for that age, one of the most influential Christian theologians, Bishop Augustine of Hippo (354-430), expressed his frustration at this same problem:

⁵⁷ Farzam Arbab, *Knowledge and Civilization: Implications for the Community and the Individual*, Bahá'í World Vol. 26 (1997-1998), https://bahai-library.com/arbab_knowledge_civilization_implications [accessed 18 December 2025]

⁵⁸ Ibid.

Now it is quite disgraceful and disastrous, something to be on one's guard against at all costs, that they should ever hear Christians spouting what they claim our Christian literature has to say on these topics, and talking such nonsense that they can scarcely contain their laughter when they see them *toto caelo* (by the whole heaven), as the saying goes, wide of the mark. And what is so vexing is not that misguided people should be laughed at, as that our authors should be assumed by outsiders to have held such views and to the great detriment of those about whose salvation we are so concerned, should be written off and consigned to the waste paper basket as so many ignoramuses.⁵⁹

In his many attempts to interpret the Book of Genesis, Augustine, educated in Neo-Platonic philosophy, did not necessarily interpret the bible literally in the modern sense of the word. He argued that it should be interpreted allegorically in a way that agreed with current reason and observation of the world. He did not see creation as necessarily taking place over six twenty-four-hour periods or ages.

There are many more examples of prominent philosopher theologians, over the last two millennia, who have also interpreted scripture allegorically so as not to contradict reason. For example, the sentiment expressed by the Catholic historian Cardinal Baronius (1538-1607) and quoted in an open letter by Galileo: "*The intention of the Holy Ghost is to teach us how one goes to heaven, not how heaven goes*",⁶⁰ reflects very concisely a continuing Augustinian influence shared by many theologians of the time.

However, many do read passages in scripture as scientific statements, not only in the bible. Nidhal Guessoum,⁶¹ describes and critiques an increasingly popular practice in Islam of Qur'anic *I'jaz 'ilmiy* (miraculous scientific content). For example, he quotes an article claiming that the speed of light was given in a Qur'anic verse rendered as "*God rules the cosmic affair from the heavens to the earth. Then this affair travels to Him in one day, where the measure is one thousand years of your reckoning.*" (Q 32:5), and he then describes the full argument and its many flaws in detail. If Bahá'ís also point to phrases in scripture as material scientific statements, this can perpetuate similar difficulties.

Religious scripture and modern scientific papers are very different types of writing. Scientists try to avoid any ambiguity in their writing. Scriptural writing takes many forms. Some passages, such as those telling us how we should behave, are meant to be taken literally, but it is pointed out many times, by both Bahá'u'lláh and 'Abdu'l-Bahá, that some passages have many meanings, challenging the reader to seek deeper spiritual meanings. Bahá'u'lláh writes:

It is evident unto thee that the Birds of Heaven and Doves of Eternity speak a twofold language. One language, the outward language, is devoid of allusions, is unconcealed and unveiled; that it may be a guiding lamp and a beaconing light whereby wayfarers may attain the heights of holiness, and seekers may advance into the realm of eternal reunion. Such are the unveiled traditions and the evident verses already mentioned. The other language is veiled and concealed ... In such utterances, the literal meaning, as generally understood by the people, is not what hath been intended. Thus it is recorded: "Every knowledge

⁵⁹ De Genesi ad litteram 1.19.39, translation quoted in Gavin Ortlund, *Retrieving Augustine's Doctrine of Creation* (Lisle IL: InterVarsity Press, 2020), p. 76.

⁶⁰ A translation of the open letter Galileo wrote to the Grand Duchess Christina in 1615 can be found here: <https://inters.org/Galilei-Madame-Christina-Lorraine> [accessed 18 December 2025], see footnote (8)

⁶¹ Nidhal Guessoum, *Islam's Quantum Question: Reconciling Muslim Tradition and Modern Science* (London and New York: I.B. Tauris & Co Ltd, 2011), Ch. 5.

hath seventy meanings, of which one only is known amongst the people.” ... He also saith: “We speak one word, and by it we intend one and seventy meanings; each one of these meanings we can explain.”⁶²

Earlier in the *Kitáb-i-Íqán*, Bahá'u'lláh, repeatedly points out the error in interpreting prophecy literally, not just in that we get the material sense wrong, but in that we miss the spiritual meaning.⁶³ ‘Abdu’l-Bahá explains that we cannot explain spiritual realities except by using material (sensible) analogies:

Thus, when you wish to express the reality of the spirit and its conditions and degrees, you are obliged to describe them in terms of sensible things, since outwardly there exists nothing but the sensible.⁶⁴

In His talks and letters, ‘Abdu’l-Bahá explained spiritual realities using material analogies that would have made sense to His audience at that time, analogies that may not have been appropriate for a different audience at a different time. What He did repeat many times was that religion must not contradict science. It is easy to take one phrase out of context. If we find a phrase that appears to make or confirm a scientific concept, we should look at the context, both in the whole passage that it is part of and the audience to whom it is addressed, and ask ourselves if the point being made is a spiritual rather than a material one. Bahá'u'lláh and ‘Abdu’l-Bahá give us many allegorical interpretations of Biblical and Qur’anic writing, pointing to spiritual rather than material meanings.⁶⁵ We cannot expect to be respected if we join the discourse with other faiths arguing for allegorical readings of their scripture but insisting on a literal interpretation of ours.

We need the material world to provide metaphors for thinking about the spiritual world and, by providing new ways of thinking about the material world, the natural sciences give us new analogies for thinking about the spiritual. Our understandings of both worlds are works in progress and we cannot justify being dogmatic about our current theories in either domain. Central to Bahá'í teaching is the concept that humanity is constantly being guided in its progress by successive Manifestations of God, each explaining new principles needed at the time they live, and our understandings of Bahá'u'lláh's teachings will develop as we study and learn from our efforts to put them into practice. For Bahá'ís, it is relatively easy to accept that religious understanding must change just as scientific theories change, while followers of previous Manifestations may have to attempt to reconcile an ever-changing science with scripture that can be seen as the unchanging last word revealed millennia in the past.

⁶² Bahá'u'lláh, *Kitáb-i-Íqán*, penultimate page (The number seventy is used many times in Christian and Islamic writing, not as an exact number but generally meaning many)

⁶³ Much of the *Kitáb-i-Íqán* is an extended lesson in the interpretation of scripture. For example, the quote “Immediately after the oppression of those days shall the sun be darkened, and the moon shall not give her light, and the stars shall fall from heaven, and the powers of the earth shall be shaken: and then shall appear the sign of the Son of man in heaven ...”, p. 16 (available: <https://www.bahai.org/library/authoritative-texts/bahauallah/kitab-i-iqan/2#663902635> [accessed 18 December 2025]), is followed by many pages explaining different spiritual meanings of the words oppression, sun, light, moon, and stars.

⁶⁴ ‘Abdu’l-Bahá, *Some Answered Questions*, no. 16

⁶⁵ See e.g. ‘Abdu’l-Bahá, *Some Answered Questions*, no. 21

Independent Investigation of Truth

Augustine of Hippo was willing to search for spiritual allegorical meanings in biblical text. His Christian mother Monica had offered a relatively simple understanding of scripture that led to the questioning young Augustine abandoning Christianity as contrary to reason, but he later came to appreciate that he could see meaningful spiritual reality in allegorical readings of the bible after hearing St Ambrose of Milan (c339 - 397) preach.⁶⁶ He returned to Christianity and became one of its most influential theologians. However, his work and that of other theologians led to different approaches to scripture: a sophisticated philosophical understanding for a highly educated theologian class and a simpler more literal understanding to provide guidance for the majority. This division was apparent for many centuries, with a small theologian class based in monasteries and later in universities, and a majority who, even if they were literate in their own language, could not read the bible, available only in Latin.

Islamic polymath, Ibn Rushd (Averroes, 1126-1198), proposed three levels of sophistication in interpreting the Quran: a simple literal reading for the less educated majority, a more dialectical reading to underpin jurisprudence and the most sophisticated demonstrative understanding for philosophers.⁶⁷ This division between a sophisticated understanding for the highly educated and a simple understanding of religion for the masses may appear to be less relevant in a modern world of near universal literacy and greater access to higher education. However, it is still present to a degree where there is a separate clergy and a minority qualified as theologians, and where informed discussion takes place in exclusively academic settings. However, the Bahá'í Faith has no separate clergy or theologians with authority to impose interpretations of scripture on individual Bahá'ís. Even the Universal House of Justice, the international governing council of the Bahá'ís, “*will not engage in interpreting the Holy Writings*”.⁶⁸ All Bahá'ís are expected to study the writings for themselves and engage in independent investigation of the truth.⁶⁹ However, a lot of the current discourse that we wish to be part of is very academic, sometimes exclusively so, and, while it remains very important for scholars to critique each other's work, we do need to see boundaries between the learned and not learned as a part of an old-world order that we must avoid retaining.

From the scientific revolution up to the middle of the twentieth century, scientific investigation in Europe and North America was dominated by white men of social status and often presented as a value free search for knowledge. In the twentieth century it became increasingly clear that medical and other human sciences in particular were seriously compromised by assumptions and values that were so deeply embedded as to be invisible to practitioners. Feminist philosophers of science⁷⁰ have contributed to pointing out these problems and the solution. Science is a human social activity and people's values should be recognised as inevitable and important. If we include a widely diverse range of people from the start in scientific projects, all those different values and

⁶⁶ Henry Chadwick, *Augustine of Hippo* (Oxford: Oxford University Press, 2009)

⁶⁷ Ibn Rushd (Averroes), *Kitab fasl al-maqal* (On the Harmony of Religion and Philosophy), 575 AH, 1179 CE

⁶⁸ The Universal House of Justice's Power of Elucidation, letter written on behalf of the UHJ, 25 Oct 1984, <https://www.bahai.org/library/authoritative-texts/the-universal-house-of-justice/muhj-1963-1986/> [accessed 18 December 2025]

⁶⁹ Abdu'l-Bahá, *Selections from the Writings of 'Abdu'l-Bahá*, The Independent Investigation of Truth, <https://www.bahai.org/library/authoritative-texts/bahauddin/bahai-sacred-writings/4#334602164> [accessed 18 December 2025]

⁷⁰ For example, see Helen E. Longino, *Science as Social Knowledge* (Princeton NJ: Princeton University Press, 1990)

background assumptions can be subjected to consultative processes that can lead to some degree of objectivity. We are seeing this principle applied, with more women and often a considerable diversity of ethnic origins in the scientific workplace, but there is still a long way to go, and it can be a mistake to confuse diversity of ethnicity with diversity of thought.

Spirituality in Science, and What Science Should Serve

Ecklund's work, described above, reveals almost 50% of US scientists identifying themselves as religious. Some describe their faith as influencing how they work with others, what they choose to research, and how they reflect on the consequences of their research. Beyond this, they do not generally see their faith as affecting how they do their scientific research. The study also reveals scientists who do not subscribe to an organised religion nevertheless expressing some form of spirituality. Description of this spirituality can be vague, often described in terms of a sense of awe and wonder or a connection to something more than the immediate material world. For the theist it must centre around the idea of a connection to God but, if God is unknowable, a precise definition of that connection must always contain an element of mystery. This leaves unclear the question of how spirituality might be of value to the pursuit of science, and there are scientists who will be very definite in their view that it is of no value whatsoever.

The Bahá'í teachings offer a practical way of thinking about spirituality. As well as the inward derivation of inspiration and strength from connecting with God through prayer, meditation and fasting, spirituality is spoken about in terms of spiritual qualities or virtues. Discussion of science and its methods can treat science in a detached and abstract way, but it is first and foremost a human social activity and its practice is therefore vulnerable to all human weaknesses. Of course, science should be the pursuit of truth, but a human scientist has bills to pay, a job to keep, dependents to support, and a career and reputation to build. As well as a sense of wonder, curiosity, perseverance and enthusiasm, scientists need detachment and integrity to value truth over personal advancement. Junior scientists need courage to disagree with illustrious senior scientists, who in turn need humility to admit that they might be wrong. However good their intentions, scientists can be put under intolerable pressures to compromise these virtues. It is equally important therefore that those with power over scientists' careers come to share the same spiritual qualities. We will need patience and perseverance to bring this about.

It can be suggested that science should be a pursuit of knowledge serving no master other than truth. It may well be true that much scientific investigation in the past has been motivated purely by curiosity, but much has always been carried out for practical purposes as well. In Ancient Greece, astronomy was driven by a need to create a calendar for the timing of agricultural processes and religious festivals, and to underpin astrology. For many centuries, in the Christian world, philosophy was regarded as the handmaiden of religion. Virtually all science now relies on funding from government or commercial sources, and so scientists serve many masters, including the military. The idea that science can be a totally free, curiosity driven search for knowledge with no master is not tenable. Bahá'u'lláh tells us that work, including science, should be carried out in a spirit of service to the whole of humanity:

It is permissible to study sciences and arts, but such sciences as are useful and would redound to the progress and advancement of the people. . . . It is enjoined upon every one of you

to engage in some form of occupation, such as crafts, trades and the like. We have graciously exalted your engagement in such work to the rank of worship unto God, the True One.⁷¹

That one indeed is a man who, today, dedicateth himself to the service of the entire human race.⁷²

Evolution

We cannot avoid the issue of the many understandings and conflicting views of evolution. This can be presented simplistically as Young Earth creationism versus an atheistic presentation of the neo-Darwinian Modern Synthesis, but the issue is far more complicated than this. That evolution has occurred is often conflated with theories about the mechanisms by which it has occurred. There are many different versions of creationism and there are many misunderstandings and misrepresentations of the history and implications of biological theories of evolution.

Creationism in its current more publicly assertive form, or creation science as it came to be presented by proponents, may have seemed largely a USA phenomenon in the 1960s, but it has spread throughout much of the Christian and Islamic worlds.⁷³ Adopting an anti-evolutionist position is not necessarily an epistemic decision, but can be about choosing a social group to join or remain part of, a matter of social identity. It may also be a reaction to the way the biological theory is often presented. If those who value their religious belief and practice are told that science has no place for God, it can be no surprise if they then reject science. There are a great many religious people nevertheless who are also prominent biologists, such as Francis Collins,⁷⁴ head of the Human Genome Project and vocal Christian. And we should not assume that all atheists assume conflict: atheist philosopher Michael Ruse, for example, argues that biological theories of evolution can be compatible with religion.⁷⁵

The Bahá'í community is not exempt from difficulty over evolution. 'Abdu'l-Bahá's discussion of evolution in *Some Answered Questions*⁷⁶ has been interpreted by some Bahá'í writers⁷⁷ as arguing for a kind of parallel evolution that proposes a separate line of biological evolution for the human species parallel to the animal kingdom since the beginning of life on earth. Rejecting evidence for a common ancestor shared between humans and apes would put us directly in opposition to the overwhelming consensus of current evolutionary biologists. Courosh Mehanian and Stephen R. Friberg⁷⁸ make a valuable contribution to resolving this conflict, and of enormous importance now

⁷¹ Bahá'u'lláh, Bishárát (Glad-Tidings), *Tablets of Bahá'u'lláh*, <https://www.bahai.org/library/authoritative-texts/bahauallah/tablets-bahauallah/2#118530370> [accessed 18 December 2025]

⁷² Bahá'u'lláh, Lawḥ-i-Maqṣúd (Tablet of Maqṣúd), *Tablets of Baha'u'llah*, <https://www.bahai.org/library/authoritative-texts/bahauallah/tablets-bahauallah/5#431422730> [accessed 18 December 2025]

⁷³ Ronald L. Numbers, *Galileo Goes to Jail and other myths about science and religion*, (Cambridge MA: Harvard University Press, 2009), Ch. 24.

⁷⁴ Francis Collins, *The Language of God* (New York NY: Simon & Schuster Ltd, 2006)

⁷⁵ Michael Ruse, *Can a Darwinian be a Christian* (Cambridge: Cambridge University Press, 2000)

⁷⁶ 'Abdu'l-Bahá, *Some Answered Questions*, foreword to 2014 edition, <https://www.bahai.org/library/authoritative-texts/abdu-baha/some-answered-questions/2#552304545> [accessed 18 December 2025]

⁷⁷ For example: Bryan Donaldson, *On the Originality of Species: The Convergence of Evolutionary Science and Bahá'í Teachings* (Independently Published, 2023)

⁷⁸ Courosh Mehanian and Stephen Friberg (2003) "Religion and Evolution Reconciled: 'Abdu'l-Bahá's Comments on Evolution." *The Journal of Bahá'í Studies*, 13(1–4), pp. 55–93. https://bahai-library.com/mehanian_friberg_religion_evolution [accessed 18 December 2025]

is the foreword to the 2014 edition of *Some Answered Questions*, in which the Universal House of Justice reminds us that:

...the attentive reader should consider any chapter within the context of the entire book, and the book within the larger context of the entire body of the Bahá'í Teachings... that Bahá'ís strive to reconcile their understanding of the statements of 'Abdu'l-Bahá with established scientific perspectives, and therefore it is not necessary to conclude that these passages describe conceptions rejected by science.

'Abdu'l-Bahá's comments were made when, although it was widely accepted that evolution had occurred, natural selection had been almost universally rejected by the scientific community,⁷⁹ to be resurrected decades later when finally combined with genetics as part of the neo-Darwinian Modern Synthesis around 1940. Public concepts of evolution were very different then from the process of evolution as understood now. We also need to consider the context, such as who He is referring to when he speaks of "*Certain European philosophers*", possibly a reference to the 19th century German materialists, such as Ludwig Büchner. As ever, we should look for the spiritual rather than the material meaning of the Master's comments, an interpretation consistent with:

The reality of man is his thought, not his material body. The thought force and the animal force are partners. Although man is part of the animal creation, he possesses a power of thought superior to all other created beings.⁸⁰

Steps Towards Harmony

Shoghi Effendi described the Bahá'í Faith as "*scientific in its method*"⁸¹. Religion needs science, not only to ensure that it is "*shorn of its superstitions, traditions, and unintelligent dogmas*",⁸² but to provide the systematic evidence-based knowledge of possible choices and their consequences for decision making, and the tools to implement those decisions. For example, if we consider ecological efforts to repair the damage to our planet caused by materialism and ignorance, we see that success is only achieved by combining love with knowledge, a combination demonstrated, for example, in the forestry work of Richard St. Barbe Baker⁸³ and the farming practices sponsored by 'Abdu'l-Bahá at 'Adasíyyih.⁸⁴

In relating a Bahá'í relationship between science and religion to the possibilities recognised within the current public discourse, Stephen Jay Gould's nuanced version of NOMA may be a starting point, being clear that science and religion are different but understanding that only a dialogue between the two can answer our deepest questions:

⁷⁹ Peter J. Bowler, *Evolution: The History of an Idea*, 25th anniversary edn (Berkeley CA: University of California Press, 2009)

⁸⁰ 'Abdu'l-Bahá, *Paris Talks*, no. 2

⁸¹ Shoghi Effendi, Letter to the High Commissioner for Palestine, June 1933, https://bahai-library.com/writings/shoghiEFFENDI/uncompiled_letters/1930s/1933-06-XX_The_World_Religion.html [accessed 18 December 2025]

⁸² 'Abdu'l-Bahá, *Paris Talks*, no. 44

⁸³ Paul Hanley, *Man of the Trees: Richard St. Barbe Baker, the First Global Conservationist* (Regina: University of Regina Press, 2018)

⁸⁴ Paul Hanley, *'Adasíyyih, The Story of 'Abdu'l-Bahá's Model Farming Community* (Evanston IL: Bahá'í Publishing, 2018)

The resolution might remain entirely neat and clean if the non-overlapping magisteria of science and religion stood far apart, separated by an extensive no-man's-land. But, in fact the two magisteria bump right up against each other, interdigitating in wondrously complicated ways along their joint border. Many of our deepest questions call upon aspects of both magisteria for different parts of a full answer – and the sorting of legitimate domains can become quite complex and difficult.⁸⁵

We want to go further though. If religious scientists adopt a simple form of NOMA to avoid their scientific objectivity being questioned, they effectively leave their faith outside the lab. To remain a complete person, a Bahá'í scientist must remain fully a Bahá'í inside the lab, confidently asserting that their faith does not conflict with following the evidence nor bias them towards theories found in revelation. They can point to 'Abdu'l-Bahá's words:

... If religion does not agree with science, it is superstition and ignorance; for God has endowed man with reason in order that he may perceive reality. The foundations of religion are reasonable. God has created us with intelligence to perceive them. If they are opposed to science and reason, how could they be believed and followed?⁸⁶

They can then demonstrate by their actions that the spiritual qualities emphasised by their Faith make them better scientists.

The understandings and actions of those who do not work as scientists are equally important. Not all need to study current scientific theories in depth, and only a few will want to specialise in studying the philosophical literature in detail, but everyone needs an education that prepares them to contribute to decision making that is informed by scientific knowledge. Confronted by conflicting statements, they need to know who and what to trust. They need to know how science works, to have some understanding of the history and philosophy of science, what scientific proof is and is not, how scientific communities work and how a scientific consensus is reached or changed.

Science also needs support against attacks from directions other than religion. When a developing scientific consensus shows that the actions of wealthy and powerful materialistic interests are damaging to the world, deliberate measures, including highly effective manipulation of media, have been used to cast doubt on this scientific consensus.⁸⁷ The only solution is a combination of the universal application of spiritual values, particularly those of truthfulness and justice, and a good public understanding of how science works that enables people to understand, for example, the difference between an articulate person in the media and authoritative report underpinned by research.⁸⁸

Support for science cannot be a slavish acceptance however. We know that all scientific investigation is human and fallible. Just as scientific theories about the world have changed, so have the philosophy and methods of science. Both theories and the methods used to develop them will change in the future. Scientists can sometimes deny the existence of that which they cannot

⁸⁵ Stephen Jay Gould, *Leonardo's Mountain of Clams and the Diet of Worms: Essays on Natural History* (New York NY: Harmony Books, 1998), p. 274

⁸⁶ 'Abdu'l-Bahá, *The Promulgation of Universal Peace*, 19 May 1912, <https://www.bahai.org/library/authoritative-texts/abdul-baha/promulgation-universal-peace/9#869824053> [accessed 18 December 2025]

⁸⁷ Naomi Oreskes and Eric Conway, *Merchants of Doubt* (New York NY: Bloomsbury, 2010)

⁸⁸ Such as reports from the Intergovernmental Panel on Climate Change (IPCC)

observe and measure, but there are many phenomena now recognised, radio waves for example, that we once had no way of detecting. Scientists are right to be sceptical and demand evidence, but they should also remain open to the possibility of the reality of phenomena that they cannot detect, and understand that science cannot answer all human questions.

Another attack on science, a relativism associated with post modernism, involves the denial of any absolute truth. Such arguments were loud during what were known as the science wars⁸⁹ in the 1990s, when some sociologists dismissed scientific theories as socially constructed to obtain power. The response of most scientists is that their theories, backed by empirical evidence, are constrained to some degree of correspondence to objectively real properties of the world. We also see moral relativism in the idea that everyone is entitled to their own truth, a repeat of the rejection of normative values expressed in the logical positivism of A J Ayer. The philosophical problem may be one of having difficulty with the idea that there may be a reality that will always be beyond our understanding. If you deny that reality you deny that there is something you cannot understand. But Bahá'ís have accepted this limitation, believing in a reality that is utterly beyond any human understanding but nevertheless makes spiritual values normative. This is the common starting point for both science and religion, a belief in the ontological reality of both God and His creation, and our fallibility in understanding both.

Conclusion

I have attempted to indicate in broad terms the nature of the public discourse about science and religion and its participants. This short article could not dig deeply into the more academic content of that discourse, necessary if we want to take part. Much of that content is to be found in the works cited, and important recent Bahá'í contributions include papers by Paul Lample⁹⁰ and Todd Smith.⁹¹ Paul Lample analyses the nature and consequences of scientific materialism and relativism, explaining the limitations of reductionism, particularly in understanding human consciousness, and describes the partially successful responses of many philosophers before setting out solutions offered by the Bahá'í understanding of religion. Todd Smith also considers philosophical discussions of the current human malaise before exploring many ways in which science and religion supplement, correspond to, and cultivate each other.

While not everyone will wish to delve deeply into theological and philosophical study, if we wish to bring about the harmony of science and religion as they are practised, it is essential for everyone to have access to a much better understanding of science than is common now. Bahá'ís, who have the valuable insights discussed, should read passages in the writings that appear to relate to material scientific issues *within the larger context of the entire body of the Bahá'í Teachings*,⁹² and then work to be able to bring the constructive discourse out from the academic world and to explain the concepts discussed here simply to anyone. This requires enough of history to counter the conflict thesis, and enough of scientific methods and proof, and how scientific communities work,

⁸⁹ Keith Parson (ed.), *The Science Wars: Debating Scientific Knowledge and Technology* (Amherst, NY: Prometheus Books, 2003)

⁹⁰ Paul Lample (2016) 'In Pursuit of Harmony between Science and Religion', *Journal of Bahá'í Studies*, 26(4), pp. 23-58, https://bahai-library.com/lample_harmony_science_religion [accessed 18 December 2025]

⁹¹ Todd Smith (2019) 'Science and Religion in Dynamic Interplay', *Journal of Bahá'í Studies*, 29(4), pp. 11-49, https://bahai-library.com/smith_science_religion_interplay [accessed 18 December 2025]

⁹² Abdu'l-Bahá, *Some Answered Questions*, foreword to 2014 edition, <https://www.bahai.org/library/authoritative-texts/abdul-baha/some-answered-questions/2#715040199> [accessed 18 December 2025]

to be able to assess the reliability of science related statements in the media. This can be supported by Bahá'í scientists, who should feel confident to express their faith in the workplace. It is also important to understand the many different beliefs and attitudes that people may bring to conversations to avoid making unhelpful assumptions. In joining any conversation, we can find that the assumptions determining the existing framework of that conversation can make it difficult to inject different approaches. If we understand that conversation and what is different about what we have to say, we are in a better position to identify and point out where we think those assumptions are unhelpful and to reframe the conversation.

Author Biography

Warren Houghton is married and lives in Devon, UK. He holds a degree in Natural Sciences (Physics) from the University of Cambridge, a PGCE from Lancaster, a MSc in telecommunications from University College London, and a PhD in signal analysis using optical techniques from the University of Plymouth. He has been retired for a few years after a career teaching Electronic Engineering and Physics in both Secondary and Higher Education. Part of a very small Bahá'í community, he is much involved in local interfaith activity and pursues an interest in the history and philosophy of science.