

Science & Religion: Reframing the conversation

Science and religion: does gender matter?

Hannah Waite and Nick Spencer

hannah.waite@theosthinktank.co.uk | nick.spenecer@theosthinktank.co.uk

This research is part of the project *Science and religion: reframing the conversation* undertaken by Theos and The Faraday Institute for Science and Religion. The project, funded by the Templeton Religion Trust, seeks to analyse the understanding of science and of religion today, as a means of better grasping and navigating the relationship between the two. Over three years, the research team interviewed more than one hundred leading experts and commissioned a YouGov survey of 5,000 UK adults. Theos has analysed data provided by YouGov. The results can be found at www.theosthinktank.co.uk

Summary

- There is a noticeable gender difference between how men and women respond to questions regarding science, religion, and science and religion.
- Men are consistently more likely than women to view science and religion as incompatible.
- Women consistently demonstrate slightly higher levels of compatibility between science and faith, and science and Christianity.
- Men are more likely (than women) to express an opinion regardless of the content of the question.
- Even accounting for this, differences remain, in particular, regarding the perception of the relationship between science and religion, where men disproportionately view this relationship as strongly incompatible.
- This is not simply a matter of women being more religious than men. Non-religious men are more 'incompatible' than non-religious women.

- Older men are also more likely to see science and religion as incompatible than younger men.
- There are various possible reasons for this gender difference, including:
 - Men tend to have a more negative view of religion in general than women; they are, for example, twice as likely to agree that religion has no place in the modern world.
 - Men have a more scientistic outlook than women. For example, 60% of men agree that science is the "only reliable way to get knowledge about the world" compared to 49% of women.
 - Men are also more likely to view religion "as a set of beliefs about the physical world" than are women. This particular combination suggests that, for some men at least, incompatibility between science and religion is entrenched in the very definitions of those terms.

Introduction

The New Atheist movement of the 2000s was characterised not only by narratives of hostility and opposition between science and religion but also by a gender imbalance. The movement was critiqued for its underrepresentation of women in leadership roles and more widely within the movement itself, an imbalance that created an environment that women have described as hostile and unwelcoming.¹

How far is this impression accurate? More generally, is there a gendered dimension to the science and religion debate?

New Atheism self-identified strongly with science, reason, rationality, and critical thinking. It was often accused of scientism, the excessive belief in the power of scientific knowledge and its techniques and the unwarranted application of science to all aspects of life. This form of thinking, or so the stereotype claims, is "masculine". Conversely, religion is more popular and more widely practised by women across the world.²

The impression that there is a gender dimension at play within the science and religion debate, invites the question about whether the clichés and stereotypes around the New Atheist movement and rhetoric have some truth in them. Do they?

Data Used

To explore this issue, we commissioned a YouGov survey to explore views pertaining to science and religion. Research was conducted between 5 May and 13 June 2021. Each question has been assessed and compared by male (n=2539) or female (n=2614) responses. To evaluate the gender differences regarding perceptions of science and religion, individuals were asked a series of statements about science and religion(s) on a 10-point 'sliding scale':

• Q3/Q4a/Q4b/Q4c: "On a scale of 1 to 10, where 1 is "completely incompatible" and 10 is "completely compatible", please indicate where you think is the relationship between science and religion/faith/Christianity/Islam.

Additionally, individuals were asked on a standard 5-point strongly agree/ agree/ neither agree nor disagree/ disagree/ disagree strongly scale how far they agreed or disagreed with the following statements:

- Q5_1 "You can't be a good scientist and be religious"
- Q5_4 "Science has disproved religion"
- **Q5_8** "Science disproves the Bible"
- **Q5_13** "Science disproves the Qur'an"
- Q2c_3 "Religion has no place in the modern world"
- **Q2c_6** "Religion is comparable to the smallpox virus but harder to eradicate"
- **Q2c_7** "Religion is a form of child abuse"
- Q1_2 "Science is the only way of getting reliable knowledge about the world"
- Q1_3 "Science will be able to explain everything one day"

YouGov conducted the survey and the data were analysed by Theos.

The results presented and discussed at length in this paper are statistically significant at $p = \le 0.05$ unless otherwise stated.

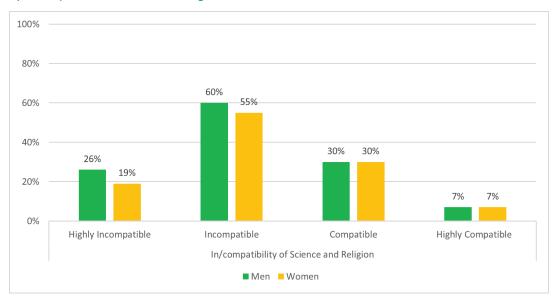
Results

Views on science and religion(s)

The results presented in figure 1 show that men are more likely than women to view science and religion as incompatible. Respondents were asked: On a scale of 1 to 10, where 1 is "completely incompatible" and 10 is "completely compatible", please indicate where you think is the relationship between science and religion. Answers from 1-5 were coded as incompatible (1-2 as highly incompatible) and 6-10 as compatible (9-10 highly compatible).

Men not only present slightly higher levels of incompatibility between science and religion, but also present higher levels of *strong* incompatibility (26%) compared to women (19%).

Figure 1. In/compatibility between Science and Religion

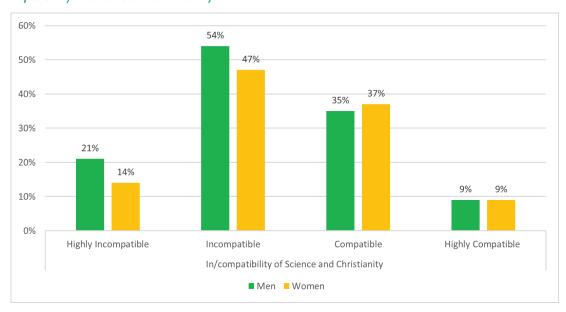


Source: Theos/Faraday/YouGov 2022: Q3 (total n=5153)

A similar trend follows concerning the in/ compatibility between science and faith, and science and Christianity. Women consistently demonstrate slightly higher levels of compatibility between science and faith, and science and Christianity, than men do (figure 2). However, it is important to note

that the difference is primarily a difference around how men and women view incompatibility rather than compatibility. In other words, men and women have broadly similar views on the compatibility of science and religion but not on their incompatibility.

Figure 2. In/compatibility of Science and Christianity

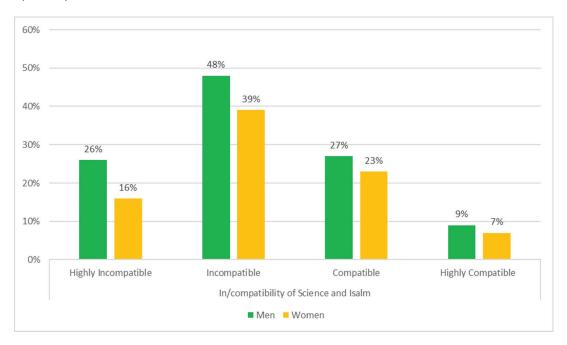


Source: Theos/Faraday/YouGov 2022: Q 4b (total n=5153)

Figure 3 shows that men are not only more likely to view science and *Islam* as incompatible in

comparison to women; they are also more likely to view science and Islam as *compatible* than women.

Figure 3. In/compatibility of Science and Islam



Source: Theos/ Faraday/ YouGov 2022: Q 4c (total n=1630)

This suggests that men are more divided than women on what they think of science and Islam, but it also underlines an important point, namely that men are more willing to voice an opinion on these issues. In this instance regarding Islam, 38% of women selected 'don't know' compared to 29% of men, which is why female figures are lower on all measures than male ones.

It was a similar, if less pronounced, difference in responses on comparable questions. For example, 15% of women answered 'Don't Know' to the question of science and *religion* compatibility (compared to

10% of men), and 16% of women answered 'Don't Know' to the question of science and *Christianity* compatibility (compared to 11% of men). We will explore how significant this issue is in the following section.

When it came to the other questions, we found that men are (marginally) more likely to agree with the statement: "you can't be a good scientist and be religious" (14%) than women (11%), but consistently and more noticeably likely to say that science has disproved religion, the Bible, and the Qur'an (figure 4).



40% 37% 31% 29% 30% 28% 23% 20% 14% 10% 0% Science has disproved religion Science has disproved the Bible Science has disproved the Qur'an ■ Men ■ Women

Figure 4: Levels of agreement with statements regarding science disproving religion/holy texts

Source: Theos/ Faraday/ YouGov 2022: Q5_4, 5_8 and 5_13 (total n=5153)

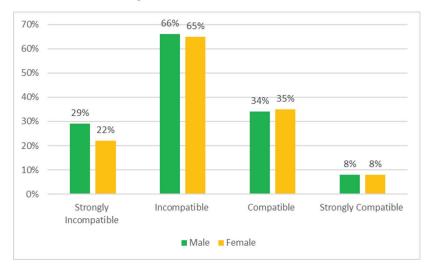
An issue of hostility or hesitancy?

In the academic, literature when it comes to Likert scale questions men are more likely to have an extreme response style than women.3 We noted this above regarding the question of Islam and science, and the same difference was evident, if not so prominent, in other similar questions.

As such, we wanted to explore whether the gender differences in science-religion opinion were due, in fact, to female hesitation in answering a question, rather than any actual difference of opinion.

To answer this, we recalculated the questions excluding the responses of "don't know". We found that, when it comes to perceptions of science and religion among those who offer an opinion (i.e. eliminating the "don't knows"), there was still a noticeable gender difference when it came to levels of strong hostility (figure 5). In other words, men and women's opinion only differs on this issue when it comes to those who view science and religion as highly incompatible.

Figure 5: In/compatibility between Science and Religion without "Don't knows"

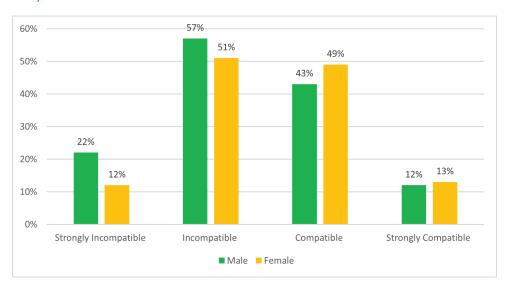


Source: Theos/Faraday/YouGov 2022: Q 3 (n=4,496)

The differences were more pronounced when it came to science and faith (figure 6). Not only are men more likely to view science and faith as highly

incompatible but also as broadly incompatible. At the same time, women are also more likely to view science and faith as compatible than men.

Figure 6: In/compatibility between Science and Faith without "Don't knows"



Source: Theos/Faraday/YouGov 2022: Q 4a (n=1,510)

There is a similar trend in how men and women view science and Christianity, with 23% of men viewing science and Christianity as strongly incompatible (vs 17% of women), and 60% of men viewing them as incompatible compared with 56% of women. The trend is true also in the opposite direction, namely that women find science and Christianity more compatible than men, with 44% of women viewing it as compatible (vs 40% of men).

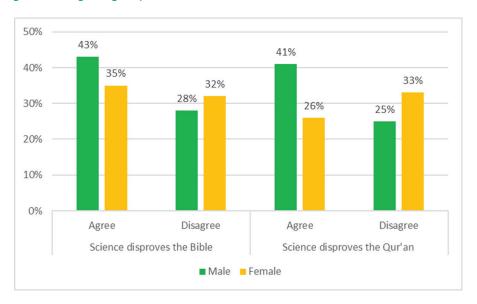
The starkest contrast in gender perceptions is evident in the relationship between science and Islam.⁴ A *majority* of women (who voiced an opinion) view science and Islam as *compatible* (62%) compared to 65% of men who find science and Islam as *incompatible*. However, it is important to note again that here 25% of men and 38% of women selected 'don't know' which leads to a smaller (and less reliable) sample size.

Finally, we also assessed the gender difference without the "don't knows" when it came to views on science disproving religion, the Bible, the Qur'an, and being a scientist and religious. These questions do still demonstrate the influence of gender. Men (who voice an opinion) are more likely than women (15% vs 12%) to say that you "can't be a good scientist and be religious" and also to agree that "science has disproved religion" (35% of men agree, vs 28% of women).



Interestingly, we found that not only is there still a gender gap in the belief that science disproves the Bible / Qur'an (figure 7), but we also saw elevated numbers in levels of agreement when we removed the "don't knows". In other words, when it comes to Islam, people who express an opinion tend to do so strongly – in both directions.

Figure 7. Levels of dis/agreement regarding Holy Texts without "Don't knows"



Source: Theos/ Faraday/ YouGov 2022: Q 17 (n=4,124), 18 (n=3,780)

In short, having eliminated the "don't knows" from the answers,⁵ we can see that opinion here is not merely an issue of hesitancy (in particular, the hesitancy of women) to answer questions. Rather, we found that there is indeed a noticeable gender dimension to how individuals answer and perceive the relationship between science and religion, faith, Christianity, and Islam. The consistent element in that difference is that men are more likely to show strong hostility to science and religion (etc.) than women are. We also found that regardless of the "don't knows" women present higher levels of perceived compatibility between science and religion(s).

Given that it is well-documented that women are more religious than men, we wanted to interrogate the data further to find if male hostility and female sympathy were simply due to women in the sample being more religious.

Religion: is it a factor?

To examine if religion is a factor in how men and women answer questions pertaining to science and religion, we recoded the data into four categories: (1) non-religious men [n=1450], (2) religious men [n=985], (3) non-religious women [n=1255] and (4) religious women [n=1247]. ('Religious' in all these cases is via self-definition rather than belief or behaviour). Creating these new variables enabled us to assess if it is religious identity, rather than gender, that is driving the differences in the data here.

Table 1 demonstrates that when you compare the views of non-religious men and non-religious women on the in/ compatibility between science and religion (faith, Christianity and Islam), there is still a gender difference when it comes to strong or high incompatibility.

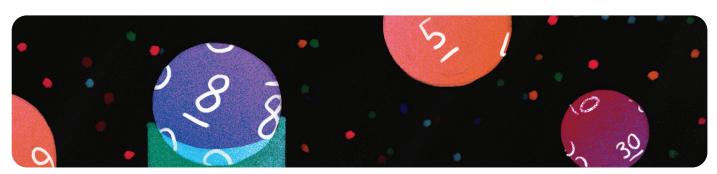


Table 1 Levels of in/compatibility in non-religious men and non-religious women on science and religion/faith/Christianity/Islam [notable differences highlighted]

	Gender	Highly Incompatible	Incompatible	Compatible	Highly Compatible
Science and Religion	Men	37%	79%	21%	4%
	Women	30%	79%	21%	3%
Science and Faith	Men	31%	71%	29%	5%
	Women	18%	66%	34%	5%
Science and Christianity	Men	33%	74%	26%	4%
	Women	27%	73%	27%	5%
Science and Islam	Men	41%	72%	28%	8%
	Women	29%	71%	29%	7%

Source: Theos/ Faraday/ YouGov 2022: Q 3, 4a, 4b, 4c (total, n=5,153)

This suggests that the gender difference in how men and women approach and understand the relationship of science and religion, and in particular with regard to strong hostility, cannot simply be explained by different levels of religious affiliation. Non-religious men and non-religious women are more likely to see strong incompatibility between science and religion than other groups (no surprise there) but non-religious men are also more likely

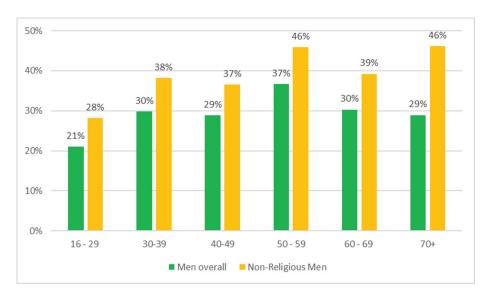
to see incompatibility than non-religious women. In other words, there is an irreducible gender dimension to this (part of the) debate.

Men are simply more likely to be antagonistic about the relationship between science and religion. As such, it may be that this whole debate is being driven by the voice of non-religious men who hold hostile views of religion.

We found that religious men and religious women respond similarly when it comes to levels of in/compatibility of the relationship with science and religion, science and faith, science and Christianity, and science and Islam. For example, 58% of religious men and 57% of religious women disagreed that science has disproved religion (16% and 15% agree respectively). We also found similar levels of dis/agreement when it came to statements of: Science disproving the Bible, (47% of men and 48% of women disagree), and "You can't be a good scientist and be religious" with 70% of men and 73% of women disagreeing (13% of men and 8% of women agreeing).

Finally, we discovered that high levels of incompatibility are more prominent in older men, and this plays a significant factor in viewing science and religion as highly incompatible (figure 8). So overall, non-religious men aged over 50 are the most likely to see strong incompatibility between science and religion.

Figure 8: Levels of male incompatibility to science and religion by age



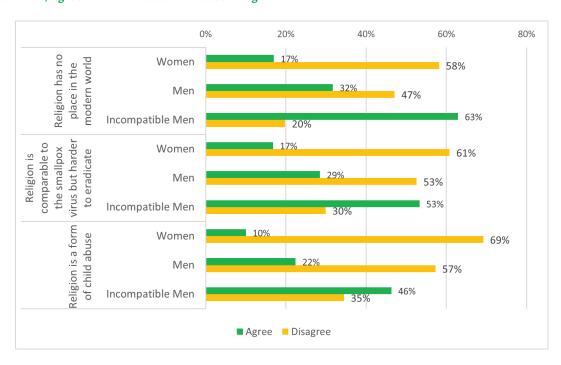
Source: Theos/Faraday/YouGov 2022: Q 3.

Reasons for male views on incompatibility

Having established that there is a gendered dimension to the science and religion debate, the question remains 'why?' Why are men constantly more likely to see science and religion (etc.) as incompatible, even when you factor in their greater willingness to answer questions and the wider dimension of religious identity? We explored two possible reasons behind this.

The first is broader attitudes to religion (not to be confused with religious self-identification). Men present disproportionately negative views of religion compared to women, for example, twice as likely to agree that religion has no place in the modern world. Men are also more than twice as likely to agree that religion is a form of child abuse, and 26% of men (vs 14% of women) agree that religion is comparable to the smallpox virus but harder to eradicate (figure 9).

Figure 9: Levels of dis/agreement with statements about religion

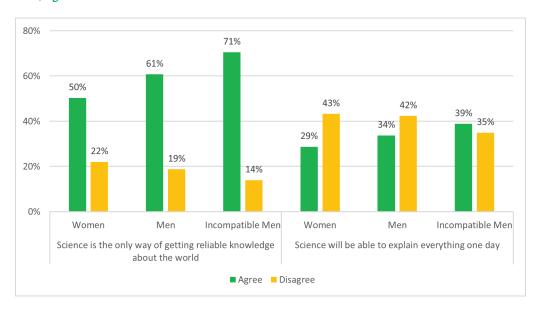


Source: Theos/Faraday/YouGov 2022: Q2c_3, Q2c_6 and Q2c_7 (n=5153), incompatible men (n=656). Incompatible men are categorised as men who voted highly incompatible (1-2) on Q3: "On a scale of 1 to 10, where 1 is "completely incompatible" and 10 is "completely compatible", please indicate where you think is the relationship between science and religion".

The data here show not only that men are more likely to be hostile to religion than women, but that 'incompatible men' (i.e. those who thought the relationship between science and religion was highly incompatible) were considerably more likely to be hostile to religion. There is clearly a strong correlation between science and religion incompatibility and general hostility to religion.

Figure 10. Levels of dis/agreement on statements about science

Second, we found that men are more likely to be scientistic, or driven by science, in their outlook. So, 60% of men agree that science is the "only reliable way to get knowledge about the world" (vs 49% of women). Men are also more likely to agree with the statement "science will be able to explain everything one day" (32% of men vs 27% of women) (figure 10).



Source: Theos/Faraday/YouGov 2022: Q1_2, and Q1_3 (n=5153), incompatible men (n=656). Incompatible men are categorised as men who voted highly incompatible (1-2) on Q3: "On a scale of 1 to 10, where 1 is "completely incompatible" and 10 is "completely compatible", please indicate where you think is the relationship between science and religion".

Again, the data here show not only that men are more likely to be 'scientistic' than women, but that 'incompatible men' were more likely to be scientistic than men overall.

This fact is relevant when compounded with a second point, namely that men are more likely to view religion as a set of beliefs about the physical world than are women. Specifically, 39% of men agree that: "Religion is a set of beliefs about the physical world (e.g. nature and the universe)" compared to 33% of women.

These two facts combine to generate an obvious potential for tension: if you believe that science is the only reliable way to get knowledge about the world, and you also believe that religion is a set of beliefs about the physical world, then tension between the two is predetermined. Conflict is, in effect, entrenched into the very terms you are using, and the data show that men are more likely

to use those terms – to define 'science' and 'religion' in that way.

Conclusion

The accusations of gender bias with the outlook and rhetoric of the New Atheist movement did, it seems, reflect a genuine phenomenon. There is a persistent gender dimension to the science and religion debate. Men are consistently more hostile to compatibility between the two, and not simply because they are more likely to voice an opinion on the matter, or because they are less likely to be religious themselves.

There are many possible reasons for this but the two we propose and explore in this paper – that man are simply more antagonistic to religion, and that men are more likely to have the potential for conflict rooted in the very definitions of the terms they use – are both borne out by the data.

- 1. www.popmatters.com/new-atheisms-gender-problems-2612611326. html. www.theguardian.com/commentisfree/cifamerica/2011/sep/26/ new-atheism-boys-club. https://qz.com/613270/brazen-sexism-ispushing-women-out-of-americas-atheism-movement/ Amarnath, Amarasingam and Melanie Elyse Brewster. "The rise and fall of the new atheism: Identity politics and tensions within us nonbelievers." Annual Review of the Sociology of Religion 7 (2016): 118-36; Katja M, Guenther, "Secular sexism: The persistence of gender inequality in the US New Atheist Movement." In Women's Studies International Forum, vol. 72, pp. 47-55. Pergamon, 2019.
- Marta Trzebiatowska, and Steve Bruce. Why are women more religious than men?. Oxford University Press, 2012; David Voas, Siobhan McAndrew, and Ingrid Storm. "Modernization and the gender gap in religiosity: Evidence from cross-national European surveys." KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie 65, no. 1 (2013): 259-283; David Voas, and Steve Bruce. "Religion: Identity, behaviour and belief over two decades." British social attitudes: The 36th report (2019):
- 3. Marshall, R., & Lee, C. (1998). A cross-cultural, between-gender study of extreme response style. ACR European Advances; Watkins, D., & Cheung, S. (1995). Culture, Gender, and Response Bias: An Analysis of Responses to the Self-Description Questionnaire. Journal of Cross-Cultural Psychology, 26(5), 490-504.
- Results were examined through a chi-square test of independence, and were not found to be significant (χ^2 (9)=15.597, p=.076). Although this is an interesting finding, it is to be utilised as a catalyst for further conversation given the lack of statistical significance.
- It is important to note that going forward all results have been calculated with the exclusion of "don't know" responses.

Theos is the UK's leading religion and society think tank. It has a broad Christian basis and exists to enrich the conversation about the role of faith in society through research, events, and media commentary.

Published by Theos in 2022 © Theos

Some rights reserved. See copyright licence for details. For further information and subscription details please contact —

Scripture quotations are from the New Revised Standard Version, copyright © 1989 the Division of Christian Education of the National Council of the Churches of Christ in the United States of America. Used by permission. All rights reserved.

Theos Licence Department 77 Great Peter Street London SW1P 2EZ

+44 (0) 20 7828 7777 hello@theosthinktank.co.uk theosthinktank.co.uk



