

SCIENCE & RELIGION EXPLORING THE SPECTRUM

Summary report of preliminary findings for a survey of public perspectives on Evolution and the relationship between Evolutionary Science and Religion

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Key Messages

- A large majority of both UK and Canadian religious or spiritual respondents report that it is very easy, easy or somewhat easy for them to accept information about evolution in reference to their personal beliefs.
- Both religious and non-religious people are more likely than not to find it easy to accept evolutionary science in relation to their own beliefs. However, a small number of religious, spiritual groups (and to a much lesser degree non-religious groups) find this more difficult.
- The key issues related to rejection of, or uncertainty about, aspects of evolutionary science include the scientific explanations of human origins and human consciousness. Although religious identity has an amplifying effect, questions over human origins and consciousness play a part in uncertainty towards aspects of evolutionary science across religious, spiritual and non-religious respondents. Surprisingly this trend is also evident within our atheist respondent group.
- Rejection of, or uncertainty about, aspects of evolutionary science DOES NOT mean rejection of all science. Individuals who find it difficult to accept aspects of evolutionary science overwhelmingly see other sciences as reliable, showing similar trends in attitudes as other groups.
- Rejection of, or uncertainty about, aspects of human evolution is not necessarily an issue of 'religion versus evolutionary science'. Universal questions around what it is to be human and about the human experience are implicated in this rejection or uncertainty and affect people of all faiths and none.





Background and method

- This report presents findings from a study conducted for Newman University. The purpose of this research was to build a better understanding of public levels of acceptance or rejection of evolutionary science, as well as how members of the general public view the relationship between evolution and religion, and by extension science and religion.
- The study was conducted in two countries: the United Kingdom and Canada.
 - A survey of 2,129 UK adults was undertaken online between 12th May and 6th June, 2017. The figures have been weighted and are representative of all UK adults (aged 16+) by age, gender, region, social grade and ethnicity.
 - A survey of 2,009 Canadian adults was undertaken online between 17th May and 12th June, 2017. The figures have been weighted and are representative of all Canadian adults (aged 18+) by age, gender, region, education level and ethnicity. Surveys were conducted with respondents in English or French respectively for respondents in Anglophone and Francophone Canada





Key findings







Respondents' Religious, Spiritual, Non-Religious, Non-Spiritual Identities

- Participants were asked to select yes or no to the question "Do you identify as religious or spiritual?" Based on their response to this question respondents were then either asked, if they had answered yes, what their religious or spiritual tradition was, or if they had selected no, what their non-religious or non-spiritual tradition was. The categories are listed below.
 - UK: 48% of the participants identified as religious or spiritual and 52% indicated that they did not.
 - Canada: 50% of the respondents identified as religious or spiritual and 50% indicated that they did not.

All UK (N = 2129) and Canadian Adults (N = 2009)

- Religious and Spiritual/Non-Religious/Non-Spiritual affiliations are detailed below:
 - Religious: Baha'l, Buddhism, Christianity, Confucianism, Hinduism, Indigenous Traditional Religion, Islam,
 Jainism, Judaism, Paganism, Shinto, Sikhism, Zoroastrian, Other
 - Spiritual but not eligious (defined by selecting 'spiritual but not religious' as their religious/spiritual identity)
 - Non-religious/spiritual: Agnostic, Atheist, Freethinker, Humanist, Non-religious, Rationalist, Sceptic,
 Secularist, Other



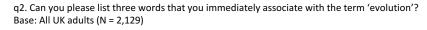


When asked unprompted which words they associate with the term 'evolution', the British general public often mention 'Darwin' and 'natural selection', as well as thoughts related to progress, change and development











Similarly, Canadians associate the term 'evolution' with Darwin and natural selection, as well as with science and change, progress and growth







q2. Can you please list three words that you immediately associate with the term 'evolution'? Base: All Canadian adults (N = 2,009)



Section 1 Summary: Attitudes towards Evolutionary Science

- The majority of religious or spiritual respondents across the UK and Canada accept evolutionary or theistic evolutionary accounts of origin of species including humans. 62% of UK respondents who identified as religious or spiritual and 54% Canadian respondents who identified as religious or spiritual selected the options "Humans and other living things evolved over time, in a process guided by God" or "Humans and other living things evolved over time by natural selection in which God played no part".
- Only a minority of religious or spiritual respondents endorse a 'creationist' position and surprisingly some non-religious/non-spiritual respondents also do. Only 16% or roughly 1 in 6 religious or spiritual respondents in the UK and only 25% or 1 in 4 religious or spiritual respondents in Canada subscribe to the view that "Humans and other living things were created by God and have always existed in their current form".
- The number of respondents endorsing the 'creationist' option in the UK was lower than previous surveys have indicated. Only 9% of all UK respondents selected "Humans and other living things were created by God and have always existed in their current form'. The percentage of all respondents endorsing this 'creationist' position in Canada was also relatively low with just 15% selecting this option.

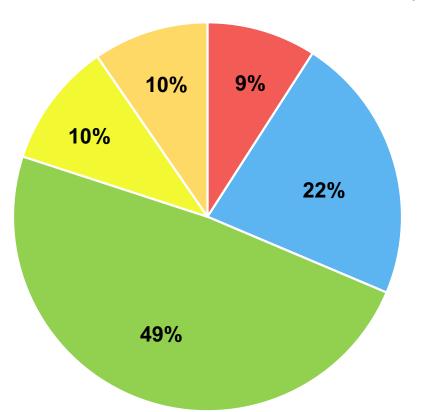




Attitudes Towards Evolutionary Science



UK Total Population



- Humans and other living things were created by God and have always existed in their current form
- Humans and other living things evolved over time, in a process guided by God
- Humans and other living things evolved over time as a result of natural selection, in which God played no part
- I have another view of the origin of species and development of life on Earth which isn't included in this list
- I don't know / I do not have a view on the origin of species and the development of life on Earth

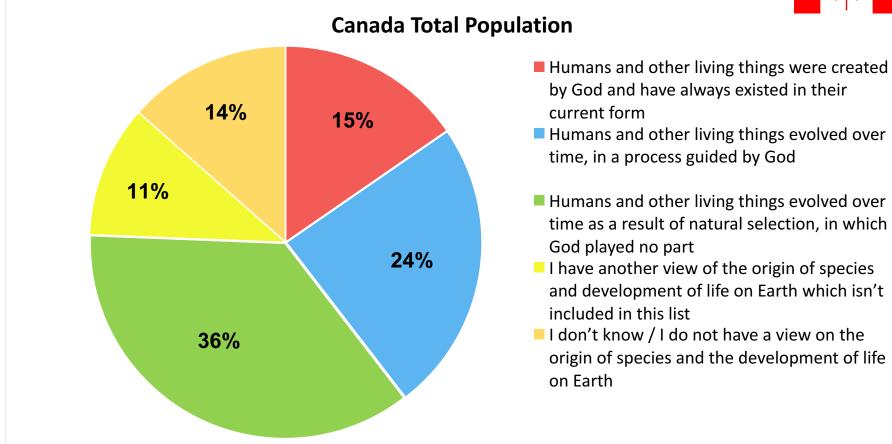
Q. People have different views about the origin of species and development of life on Earth. Which of the following statements comes closest to your view about the origin and development of life on Earth? All UK adults (N = 2129)





Attitudes Towards Evolutionary Science





Q. People have different views about the origin of species and development of life on Earth. Which of the following statements comes closest to your view about the origin and development of life on Earth? All Canadian Adults (N = 2009)





Attitudes Towards Evolutionary Science – in comparison to previous UK survey results

Unlike the USA little long-term research into public perceptions of evolution or levels of endorsement of creationism has been undertaken in the UK or Canada. Previous surveys in the UK have suggested levels of support for 'creationist' views as follows:

2009

"Humans and other living things were created by God and have always existed in their current form" = 16 %

(British Council *Darwin Now* Survey Ipsos Mori Apr-May 2009 UK Adults 18+ N= 973)

2014

"Humans and other living things were created by God and have always existed in their current form" = 19%

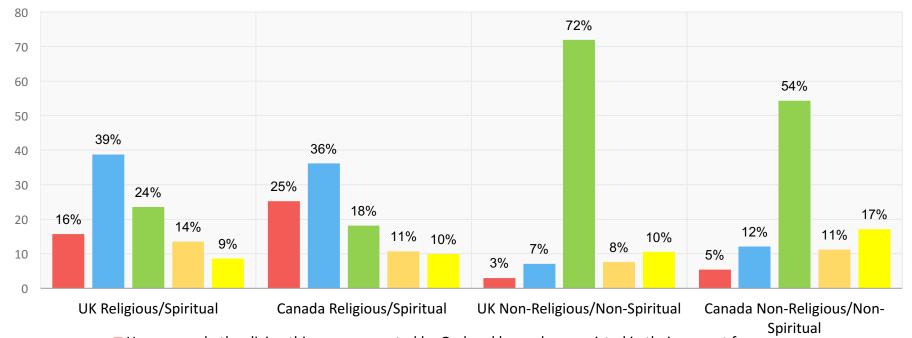
(Public Attitudes Towards Science Survey, BIS/BSA, Ipsos Mori UK Adults 16+ N = 2064)

Our survey found these figures to be lower than expected in the UK (9%). However, this could be due to differences in the design/sampling of the whole survey and/or could also imply that support for 'creationist' stances in the UK is not as stable overtime as has been suggested by similar survey questions in the USA.





Attitudes towards Evolutionary Science across Religious/Spiritual and Non-Religious/Non-Spiritual groups. It is important to note that only a minority of religious/spiritual respondents endorse a 'creationist' position.



- Humans and other living things were created by God and have always existed in their current form
- Humans and other living things evolved over time, in a process guided by God
- Humans and other living things evolved over time as a result of natural selection, in which God played no part
- I have another view of the origin of species and development of life on Earth which isn't included in this list
- I don't know / I do not have a view on the origin of species and the development of life on Earth



Percentages given refer to the following sample sizes. UK religious or spiritual N = 1020, UK non-religious or non-spiritual N = 1109. Canada religious or spiritual N=1012, Canada non-religious or non-spiritual N= 997.



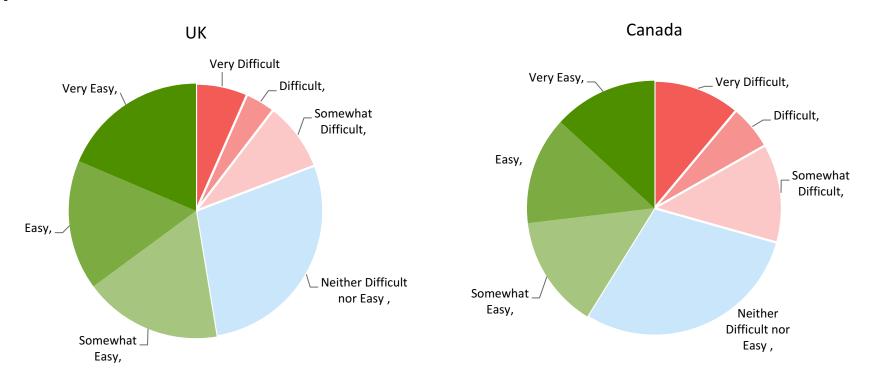
Section 2 Summary: Acceptance of Evolutionary Science in relation to personal belief

- The majority of respondents found it very easy, easy, or somewhat easy to accept evolutionary science in reference to their personal beliefs.
- Only 1 in 5 UK respondents (19%) and under 1 in 3 (29%) of Canadian respondents who identified as religious or spiritual found it somewhat difficult, difficult or very difficult to accept evolutionary science in reference to their personal beliefs.
- It is important to note 1 in 10 non-religious/non-spiritual respondents in Canada (10%) and 1 in 20 non-religious/non-spiritual respondents in the UK (5%) found it somewhat difficult, difficult or very difficult to accept evolutionary science in reference to their personal beliefs
- Of those who found it difficult to accept evolutionary science in reference to their personal beliefs the primary concerns cited related to aspects of human evolution. This was consistent across all groups (religious/spiritual and non-religious/non-spiritual).





Difficulty accepting Evolutionary Science: Religious or Spiritual respondents



Only 1 in 5 UK respondents (19%) and under 1 in 3 of Canadian respondents (29%) who identified as religious or spiritual found it somewhat difficult, difficult or very difficult to accept evolutionary science in reference to their personal beliefs. This compares to 53% in the UK and 41% in Canada who found it somewhat easy, easy or very easy.

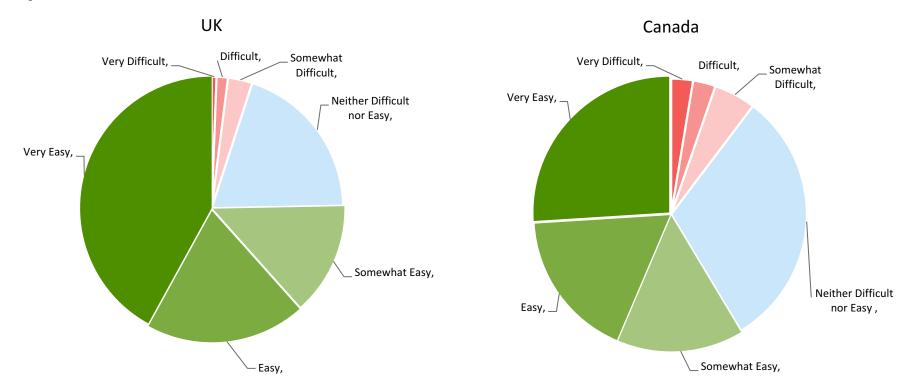


Q. In your daily life, how difficult or easy do you find it to accept evolutionary science in reference to your own personal beliefs?

Percentages given are for Religious or Spiritual respondents in the UK (N = 1020) and Canada (N= 1012)



Difficulty accepting Evolutionary Science: Non-Religious or Non-Spiritual Respondents



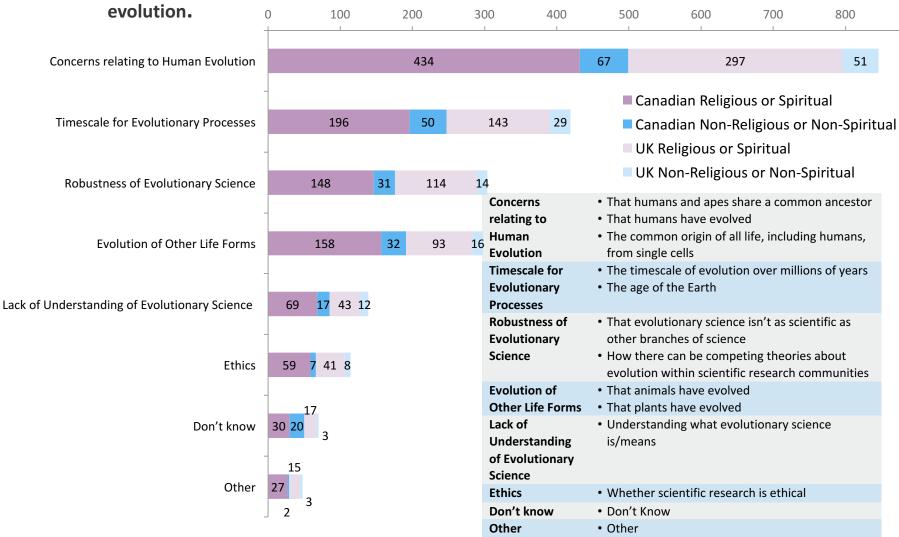
1 in 20 non-religious/non-spiritual respondents in the UK (5%) and 1 in 10 non-religious/non-spiritual respondents in Canada (10%) found it somewhat difficult, difficult or very difficult to accept evolutionary science in reference to their personal beliefs. This compares to 75% in the UK and 59% in Canada who found it somewhat easy, easy or very easy.



Q. In your daily life, how difficult or easy do you find it to accept evolutionary science in reference to your own personal beliefs? Percentages given are for Non-Religious and Non-Spiritual respondents in the UK (N=1109) and Canada (N=997).



Overall, the main reason respondents gave for why they found it difficult to reconcile evolutionary science with their own beliefs were concerns relating to aspects of human





Q) What do you find difficult to accept about evolutionary science in reference to your personal beliefs? UK participants who reported experiencing difficulty (N = 251): Religious or Spiritual N = 195, Non-Religious or Non-Spiritual N = 55. Canadian participants who reported experiencing difficulty (N = 400): Religious or Spiritual N = 296, Non-Religious or Non-Spiritual N = 102. Please note that participants could select multiple options.



Summary Section 3: Perceptions of Human Evolution

- Although the majority of respondents across all groups (UK: 84%, Canada: 75%) agree that "evolution is a natural process that explains how all organisms, including humans, have developed and continue to develop", we found that (across all groups) in the UK 28% of respondents, and in Canada 38% of respondents, agreed with the statement "Animals evolve over time but evolutionary science cannot explain the origin of human beings", while in the UK 44% of respondents, and in Canada 46% of respondents, agreed with the statement "Evolutionary processes cannot explain the existence of human consciousness".
- We found similar trends across all groups (religious/spiritual and non-religious /non-spiritual) when analysing them separately. Surprisingly, when we look at atheists as a subset of the non-religious or non-spiritual group we find that over 1 in 3 of Canadian atheists, and nearly 1 in 5 UK atheists somewhat agree, agree or strongly agree with the statement: "Evolutionary process cannot explain the existence of human consciousness".
- We also found that nearly 1 in 3 of Canadian atheists, and over 1 in 10 of UK atheists somewhat agree, agree or strongly agree with the statement: "Animals evolve over time but evolutionary science cannot explain the origins of human beings".

These results strongly suggest that whilst religious or spiritual identity may have an amplifying effect in regards to individuals' doubts about evolutionary science based explanations of human origins and the evolution of human consciousness, these doubts were also an underlying trend in non-religious and non-spiritual groups.





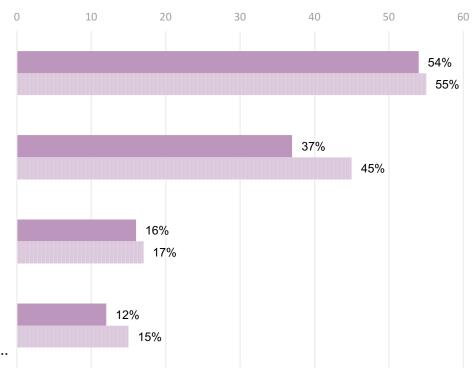
Evolutionary Science Based Explanations for Human Evolution: Religious or Spiritual Participants' attitudes

Evolutionary processes cannot explain the existence of human consciousness (somewhat agree, agree, agree strongly)

Animals evolve over time but evolutionary science cannot explain the origin of human beings (somewhat agree, agree, agree strongly)

Evolutionary science explains how the human brain developed (somwehat disagree, disagree, strongly disagree)

Evolution is a natural process that explains how all organisms, including humans, have developed and continue to develop (somwehat disagree, disagree,...



■ UK Religious/Spiritual (n= 1020)

■ Canada Religious/Spiritual (n=1012)

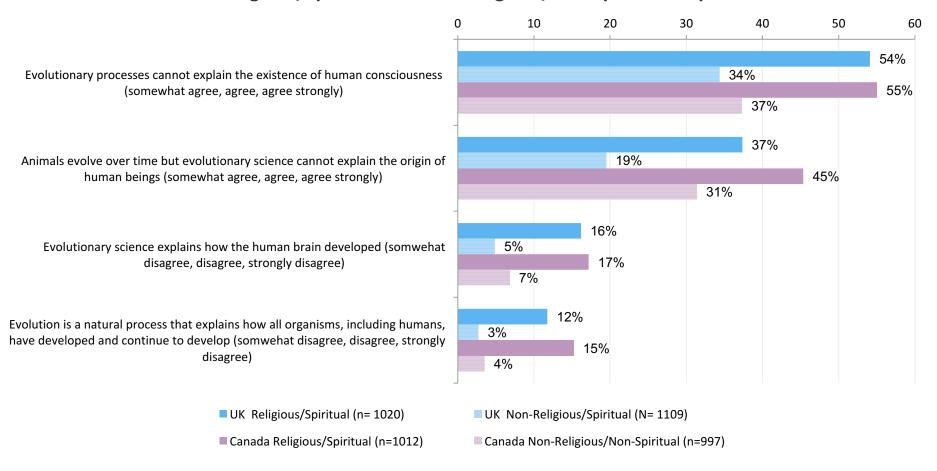
Q. For each of the following statements about evolution and evolutionary science, please indicate the extent to which you personally disagree or agree. Options: Strongly disagree, Disagree, Somewhat disagree, Neither disagree nor agree, Somewhat agree, Agree, Strongly agree, or Don't know.

Percentages given are for religious or spiritual respondents in the UK (N=1020) and Canada (N=1012).





Attitudes Towards Evolutionary Science Based Explanations for Human Evolution across Religious/Spiritual and Non-religious/Non-spiritual respondents



Q. For each of the following statements about evolution and evolutionary science, please indicate the extent to which you personally disagree or agree. Options: Strongly disagree, Disagree, Somewhat disagree, Neither disagree nor agree, Somewhat agree, Agree, Strongly agree, or Don't know. Percentages given are for religious or spiritual respondents in the UK (N = 1020) and Canada (N = 1012) and for non-religious and non-spiritual respondents in the UK (N = 1109) and Canada (N = 997).





Evolutionary Science Based Explanations for Human Evolution: Atheists (as a sub-set of Non-Religious or Non-Spiritual group)

Evolutionary processes cannot explain the existence of human consciousness (somewhat agree, agree, agree strongly)

Animals evolve over time but evolutionary science cannot explain the origin of human beings (somewhat agree, agree, agree strongly)

Evolutionary science explains how the human brain developed (somwehat disagree, disagree, strongly disagree)

Evolution is a natural process that explains how all organisms, including humans, have developed and continue to develop (somewhat disagree, disagree, strongly disagree)

W UK Atheists (274)

40 19% 38% 12% 31% 2% 3% 0% 4%

% Canadian Atheists (191)

Over 1 in 3 of Canadian Atheists, and nearly 1 in 5 of UK Atheists (a subset of the non-religious or non-spiritual group) somewhat agree, agree or strongly agree with the statement:

"Evolutionary process cannot explain the existence of human consciousness"

Nearly 1/3 Canadian Atheists, and over 1/10 **UK** atheists somewhat agree, agree or strongly agree with the statement:

"Animals evolve over time but evolutionary science cannot explain the origins of human beings"



Q. For each of the following statements about evolution and evolutionary science, please indicate the extent to which you personally disagree or agree. Options: Strongly disagree, Disagree, Somewhat disagree, Neither disagree nor agree, Somewhat agree, Agree, Strongly agree, or Don't know.



Section 4 Summary: Interest in Scientific Research and Related Topics

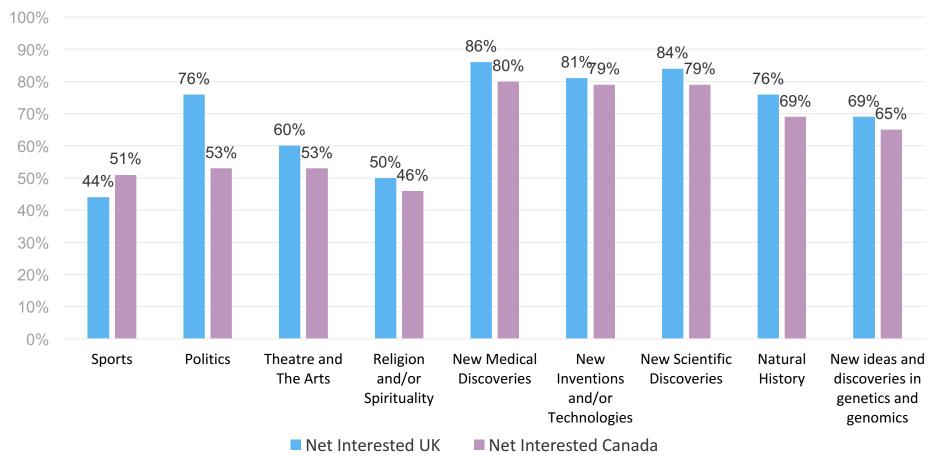
- Levels of interest in new medical, technological and scientific discoveries is very high across all groups in both the UK and Canada. This includes interest in new ideas and discoveries in genetics and genomics, with 69% in the UK and 65% in Canada expressing an interest in this topic. In both countries, interest is uniformly higher for science related topics than sports, arts or theatre and religion or spirituality. In Canada interest in science related topics is also higher than interest in politics. In the UK interest in politics is higher than interest in new ideas and discoveries in genetics and genomics, and the same as interest in natural history. It is important to note that the UK sample was collected in the run up to the 2017 General Election, so this may explain why interest in politics is higher in the UK sample than in the Canadian sample.
- Even a majority of those respondents who stated they had some level of difficulty in accepting evolutionary science in relation to their own personal beliefs still expressed an interest in new ideas and discoveries in genetics and genomics. 59% in the UK and 57% in Canada of this group expressed an interest in this topic. An even larger majority in this group of respondents expressed an interest in new medical, technological and scientific discoveries.
- There are a number of explanations for this result. It suggests that even though people express difficulty in accepting evolutionary science they are: still interested in research in this field; are open to thinking about it and/or critically engaging with it; that publics might be separating out genetics research as distinct from the origin of humans or human consciousness; or that there is a strong social desirability to be seen as accepting science more generally within this group. It is important to note this was the first question in the survey.





Interest in Science in Comparison to Other Topics: UK and Canada





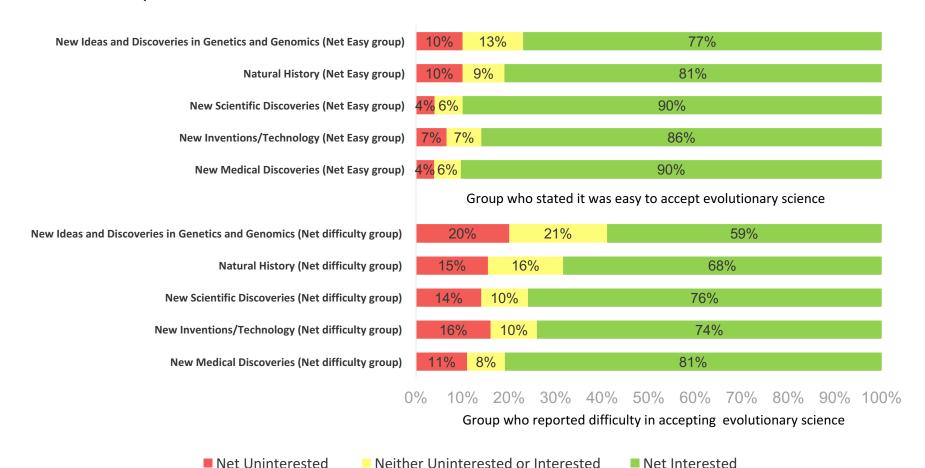


Q. How uninterested or interested are you in the following topics? (Please select one option in each row) Very uninterested, Uninterested, Somewhat uninterested, Neither interested nor uninterested, Somewhat interested, Interested, Very interested All UK respondents N = 2129, All Canadian respondents N = 2009



Levels of interest in scientific topics across groups who reported either finding it difficult or easy to accept Evolutionary Science in reference to their own personal beliefs: UK





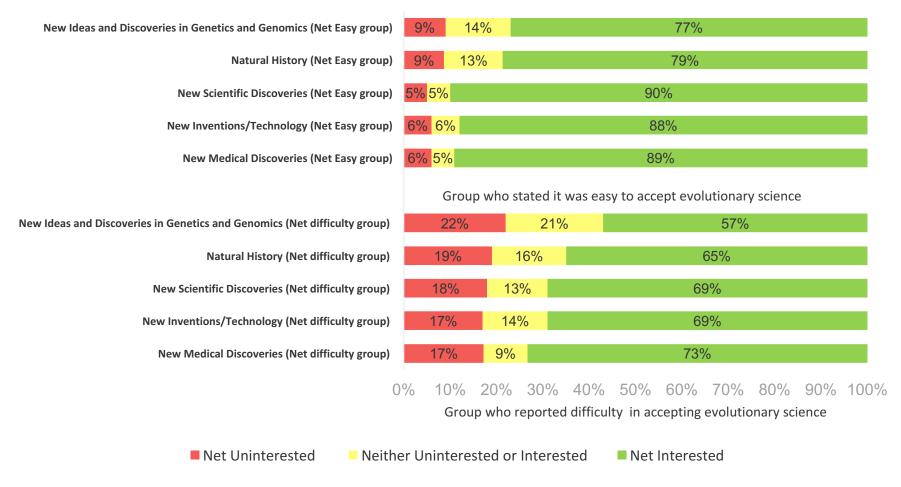


Qs "How uninterested or interested are you in the following topics?" (Very uninterested, Uninterested, Somewhat uninterested, Neither interested nor uninterested, Somewhat interested, Interested, Very interested) and In your daily life, how difficult or easy do you find it to accept information about evolution in reference to your own personal beliefs? (Somewhat difficult, difficult or very difficult, Neither easy nor difficult, very easy, easy, or somewhat easy). Net Difficult N = 261. Net Easy N = 1366.



Levels of interest in scientific topics across groups who reported either finding it difficult or easy to accept Evolutionary Science in reference to their own personal beliefs: Canada







Qs "How uninterested or interested are you in the following topics?" (Very uninterested, Uninterested, Somewhat uninterested, Neither interested nor uninterested, Somewhat interested, Interested, Very interested) and In your daily life, how difficult or easy do you find it to accept information about evolution in reference to your own personal beliefs? (Somewhat difficult, difficult or very difficult, Neither easy nor difficult, very easy, or somewhat easy.) Net Difficult N = 363, Net Easy N = 1056.



Section 5 Summary: Perceptions of Evolutionary Science in Relation to Other Sciences or Areas of Academic study

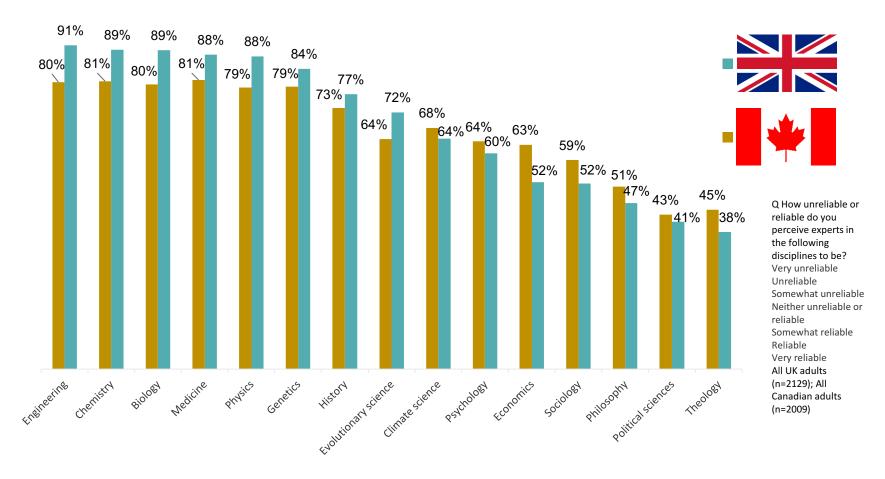
- British and Canadian adults are most likely to feel that experts in the 'hard sciences' are reliable; perceptions of reliability begin to decrease as they consider experts in social sciences and humanities, e.g. Sociology and Philosophy.
- Across both countries the reliability of scientists who work in evolutionary science (UK = 72%, Canada = 64%) and climate science (UK = 64%, Canada = 68%) was perceived as being lower than other areas of scientific research.
- However, trust in experts in biology (UK = 89%, Canada = 80%) and in genetics (UK = 84%, Canada = 79%) was higher, even though evolutionary science is to an extent a branch of biological research and genetics is fundamentally part of evolutionary scientific research.
- In the group of respondents who stated they had some level of **difficulty in accepting evolutionary science** in relation to their own personal beliefs **endorsement of evolutionary science was unsurprisingly lower** (UK = 28%, Canada = 38%). **However**, again within this group **trust in experts in genetics** (UK = 70%, Canada = 69%) **was significantly higher**.

These results further support the idea that when thinking about evolutionary science publics might be separating out genetics research as distinct from the origin of humans or human consciousness.





British and Canadian Adults Perceptions of Experts' Reliability Across Sciences, Social Sciences, and Humanities



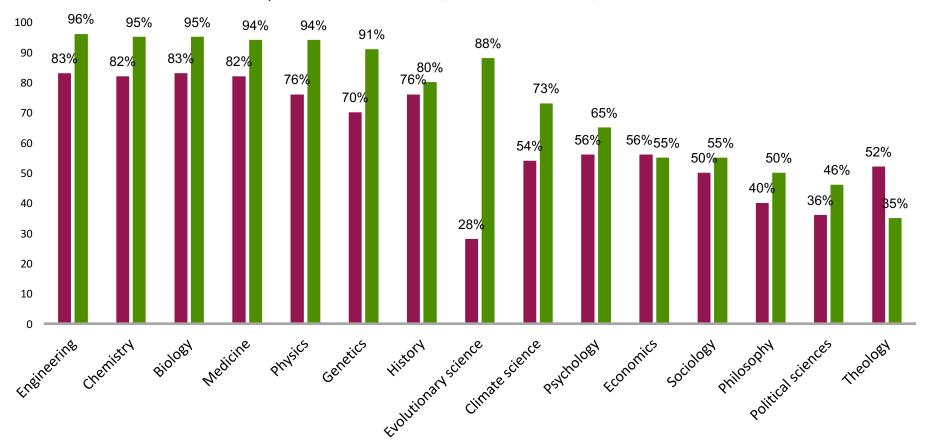


% of respondents who selected, somewhat reliable, reliable or very reliable.



Perception of reliability of experts in differing disciplines across groups who reported either finding it difficult or easy to accept evolutionary science in reference to their own personal beliefs: UK % of respondents who selected, somewhat reliable, re





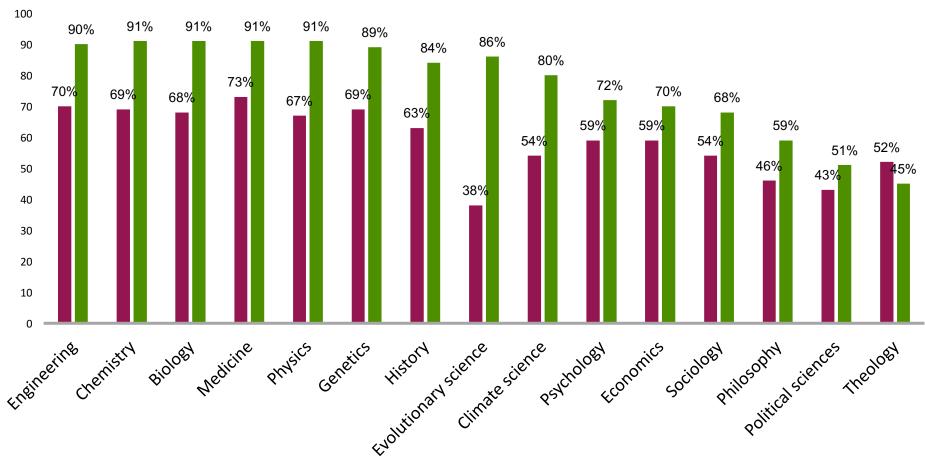
- Percentage of respondents who found it very difficult, difficult or somewhat difficult to accept information about evolutionary science in reference to their personal beliefs who rated each discipline as very reliable, reliable or somewhat reliable. N = 251.
- Percentage of respondents who found it very easy, easy or somewhat easy to accept information about evolutionary science in reference to their personal beliefs who rated each discipline as very reliable, reliable or somewhat reliable. N = 1372.



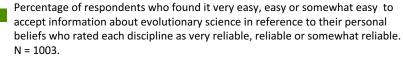


Perception of reliability of experts in differing disciplines across groups who reported either finding it difficult or easy to accept evolutionary science in reference to their own personal beliefs: Canada % of respondents who selected, somewhat reliable





Percentage of respondents who found it very difficult, difficult or somewhat difficult to accept information about evolutionary science in reference to their personal beliefs who rated each discipline as very eliable N = 400.







Section 6 Summary: Evolutionary Science and Science as a Cultural Identity

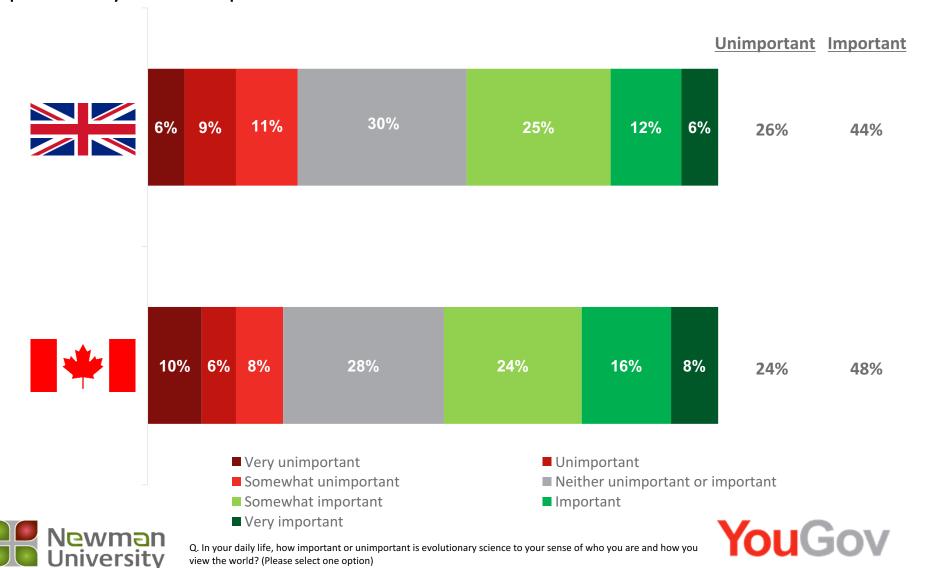
- Close to half of British and Canadian adults (UK: 44%, Canada: 48%) feel that evolutionary science is important to their sense of who they are and how they view the world, while only roughly a quarter say it is unimportant.
- Nearly two-thirds of British and Canadian adults (UK and Canada: 57%) feel that science is important to their sense of who they are and how they view the world, while only roughly 1 in 6 (UK and Canada: 17%) say it is unimportant.
- The general public in the UK and Canada are more likely to view science as more important to their sense of who they are and how they view the world than evolutionary science specifically or their religious/non-religious position. In Canada this also applies to their political stance. In the UK, science and individuals' political stances were seen as equally important (57%). Our pilot data for this survey suggested that in the UK political stance and evolutionary science were of roughly equal importance to respondent's identities (44%). It is important to note that the UK sample was collected in the run up to the 2017 General Election so this may explain why interest in politics is higher in UK sample than in the Canadian sample.
- However, only 26% of UK and 33% of Canadian respondents sampled had studied science to A-Level/Grade 12 or above and only 6% of UK and 3% of Canadian respondents sampled stated that they were themselves scientists.

This data strongly suggests that science and evolutionary science play a more important part in our day-to-day cultural identity than previously thought - even for those who have not studied sciences beyond school age and don't themselves work in the sciences. It is evident that for the majority of publics in the UK and in Canada, 'science' acts as a cultural identity. Arguably, science is not a culture separate from society but *it is our culture* and we perceive ourselves as living in a scientific society.





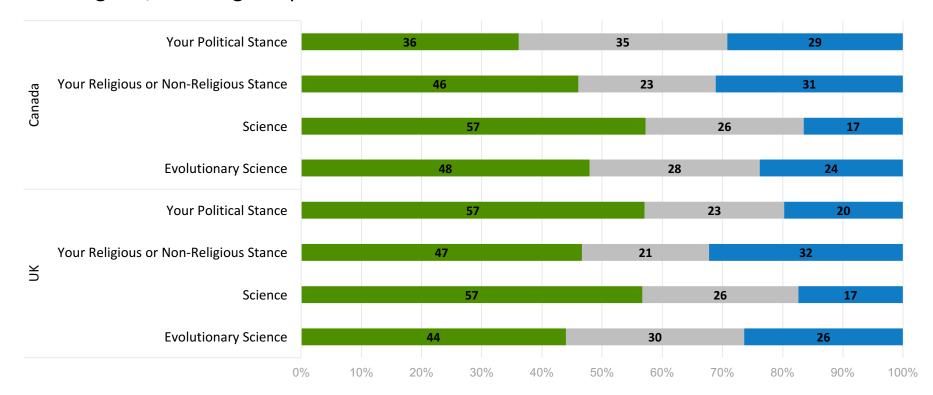
Close to half of British and Canadian adults feel that evolutionary science is important to their sense of who they are and how they view the world, while roughly a quarter say it is unimportant



All UK adults (n=2,129); All Canadian adults (n=2,009)

Birmingham

The general public in the UK and Canada are more likely to view science as important to their sense of who they are and how they view the world than evolutionary science specifically or their religious/non-religious position.



■ Somewhat Important, Important or Very Important

- Neither Important nor Unimportant
- Somewhat Unimportant, Unimportant, Very Unimportant
 - Q. In your daily life, how important or unimportant is evolutionary science to your sense of who you are and how you view the world? (Please select one option)
 - Q. In your daily life, how unimportant or important is your religious, spiritual or non-religious position to your sense of who you are and how you view the world?
 - Q. In your daily life, how unimportant or important is science to your sense of who you are and how you view the world?
 - Q. In your daily life, how unimportant or important is your political stance to your sense of who you are and how you view the world?

Base: All UK adults (n=2,129); All Canadian adults (n=2,009)





Conclusions 1:

- Uncertainty towards aspects of evolutionary science is identifiable across religious or spiritual and non-religious or non-spiritual groups.
- Rather than being solely a product of affiliation to a religious or spiritual tradition, this uncertainty appears to be primarily related to evolutionary science based explanations for human origins and human consciousness.
- These are fundamental existential questions that confront humanity and it appears that significant numbers of people across the religious or spiritual/non-religious or non-spiritual spectrum feel evolutionary science cannot currently, as they understand it, provide full answers to these universal existential questions.
- A significant majority of those who expressed difficulty in accepting aspects of evolutionary science in relation to their own beliefs still expressed an interest in science based subjects, including genetics and genomics. A significant majority of this group also felt that experts in all other areas of scientific research, including biology and genetics, were reliable.
- Attitudes towards evolutionary science are more complicated than has been previously reported.
 Traditional survey measures of creationism can be complemented by more in-depth analysis of public attitudes towards evolutionary science and other sciences across religious and non-religious groups.





Conclusions 2:

- What it means to be a 'creationist', and the significance of this position in regards to evolutionary ideas and science more broadly, needs to be carefully considered in light of these findings. This data strongly suggests that rejection of aspects of human evolution or evolutionary science does not mean a rejection of science, or even the directly connected field of genetics.
- Science and evolutionary science play a more important part in our day-to-day cultural identity than previously thought even for those who have not studied sciences beyond school age and don't themselves work in the sciences. It is evident that for the majority of publics in the UK and in Canada 'science' acts as a cultural identity. Arguably, science is not a culture separate from society but it is our culture and publics perceive themselves as living in a scientific society where it is socially desirable to have an interest in science. Endorsement of science clearly forms part of some individual's cultural identity. When trying to understand how religious or spiritual individuals perceive evolutionary science we need to recognize that they can and do hold both scientific and religious cultural identities.
- Communication and education relating to evolutionary science needs to take into account broader concerns about human evolution, the development of human consciousness and the ways in which publics perceive humans to differ from other animals. One avenue that might be beneficial in this regard is to provide a wider range of opportunities to engage with ongoing research relating to cultural evolution and related areas of evolutionary scientific research from a range of disciplinary perspectives.
- Most importantly, rejection of or uncertainty about aspects of human evolution is not necessarily an issue of 'religion versus evolutionary science', universal questions of what it is to be human and the human experience are implicated in this rejection or uncertainty and affect those of all faiths and none.





To learn more about our project please visit our website, follow us on Facebook or get in touch via Twitter.





http://sciencereligionspectrum.org/



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Science and Religion: Exploring the Spectrum







