

John Evans's Morals Not Knowledge

with Mark Harris, “‘The People of This Country Have Had Enough of Experts’: In Defense of the ‘Elites’ of the Science-and-Religion Debate”; Fern Elsdon-Baker, “In Defense of Publics: Projection, Bias, and Cultural Narratives in Science and Religion Debates”; Elaine Howard Ecklund, Sharan Kaur Mehta, and Daniel Bolger, “A Way Forward for Sociological Research on Science and Religion: A Review and a Riff”; Nathan Crick, “Morality through Inquiry, Motive through Rhetoric: The Politics of Science and Religion in the Epoch of the Anthropocene”; and John H. Evans, “The Scope and Implications of Morals Not Knowledge.”

IN DEFENSE OF PUBLICS: PROJECTION, BIAS, AND CULTURAL NARRATIVES IN SCIENCE AND RELIGION DEBATES

by Fern Elsdon-Baker

Abstract. John H. Evans’s recent book *Morals Not Knowledge* is a timely argument to recognize broader social and cultural factors that might impact what U.S. religious publics think about the relationship between science and religion and their attitudes toward science and/or religion. While Evans’s focus is primarily on what can be classed as moral issues, this response argues that there are other factors that sit within neither the older epistemic conflict model approach nor a moral conflict model approach that also merit further investigation. There is a significant need for further research that examines the social, psychological, (geo)political, and broader cultural factors shaping people’s social identities in relation to science and religion debates. When undertaking such research, we need to be wary of creating a binary between scholarly and public space discourse. Social scientific research in this field should be led by public perceptions, attitudes, and views, not by concepts or frameworks that we project onto them.

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Public and scholarly discourse surrounding the relationship between science and religion does tend to essentialize the issues at hand as being purely based on the epistemic positions of two apparently warring groups:

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“scientists,” or those who support them, and “religious leaders,” or those who follow them. It is assumed by some of the more high-profile public intellectuals in this area that what is at stake is the fundamental basis of all science and the ways in which we produce knowledge about the natural world. This kind of thinking is often based on caricatures of, on one side, rational enlightenment (“science”) and, on the other side, irrational reactionary antisience (“religion”). Conversely, this kind of epistemic conflict narrative is also endemic in the scholarly discourse that seeks to counter such simplistic caricatures. Even where one might be seeking to create alternative models of thinking about the relationship between science and religion, the focus has been very much on how we can deconstruct the epistemic conflict model by replacing it with more conciliatorily epistemic relationships between “science” and “religion.” The core assumption is still that any conflict is primarily epistemic in nature, and that by extension epistemic conflict is a significant, or indeed the most salient, issue for religious believers. Ironically, it appears that some of the scholarly discourse in this field is doomed by its very nature to perpetuate the very model it is seeking to deconstruct.¹ These kinds of assumptions are not just confined to those who work directly on science and religion, but are also in evidence in a lot of thinking that underpins contemporary science communication, media, or education.

The upshot of this focus on what are perceived by some to be two warring systems of knowledge is that both those who seek to promote conflict or conciliation between “science” and “religion” become ensnared in a number of tenuous assumptions about what might drive the ordinary person on the street to reject certain areas of science. The two most problematic assumptions here are, first, that to reject one facet of scientific knowledge is to reject all facets of science as an endeavor, and second, that the principal reason for rejecting any facet of science for religious believers is that the truth claims made by “religion” trump the truth claims made by “science”—and that furthermore, the primacy of an individual’s religious convictions means “religion” will always win hands down—the most often used example of course being creationists in the United States, their views on evolutionary science (or more specifically human evolution), and by extension their relationship with “science” as a whole.

Morals Not Knowledge by John H. Evans is therefore a timely and much needed antidote to some of this narrow framing of religious publics in the United States and their perceptions of science. The core of Evans’s argument is twofold. First, that any conflict between “science” and “religion” in the United States today is not about a full-scale clash between two warring systems of knowledge, as it is often portrayed in both the media and scholarly discourse. It is, he argues, more a case that some religious publics—and here it’s most likely to be American Protestants—hold a form of “propositional belief” conflict. So rather than rejecting the entire system of scientific

thought or knowledge, they will reject one or more specific truth claims, for example, that humans share a common ancestor with apes, or the Earth accreted 4.5 billion years ago. It is not, as some might naively assume, that to reject one propositional belief is to reject all of science. Evans provides a compelling and clearly thought-out argument that evidences that what we observe with American publics is not a systematic knowledge clash, but a more localized attitudinal stance that is adopted by individuals and, to a degree, certain groups. This is similar to what we find in other areas of research into publics' perceptions of science, and there is evidence that this applies to a number of science- or technology-related issues. For example, we wouldn't expect someone who raised concerns about a single issue such as nanotechnology, genetic modification, nuclear power, or vaccinations to be necessarily or intrinsically anti-all science or related technologies. No doubt there will be some fringe groups who might adopt a strongly anti-science or technology stance, but in the modern world those who choose to go completely off the grid are few and far between. Lack of trust or support for one area of science, technology, engineering, and mathematics (STEM) is usually evident in relation to one issue or a related cluster of issues. It doesn't seem counterintuitive to us to think someone who has concerns about nuclear power stations might still also be vehemently pro-vaccinations. Yet, there does appear to be a blind spot in this regard when it comes to religious publics both in the United States and Europe. As Evans outlines, there is in evidence an assumption that creationists' rejection of evolutionary science is automatically going to map onto climate science rejection at both individual and group levels. This is obviously a logical conclusion if you accept that science and religion are two conflicting knowledge systems. However, there is a growing body of social science research that evidences there are various ways in which religious publics might negotiate a rejection of one scientific truth claim without having to dismantle the entirety of the scientific corpus. While Evans focuses on the United States, this is a trend that has also been observed in studies outside of the United States.

In our research undertaken in the United Kingdom and Canada (Elsdon-Baker et al. 2017a, 25–27) we found that perceptions of experts in different fields varied but publics were likely to feel that experts in STEM subjects were more reliable (with engineering, chemistry, biology, medicine ranking most highly with over 80 percent of the public seeing experts in these fields as reliable) than those working in other areas of academic research (with sociology, philosophy, political science, theology ranking lowest). However, across both countries the reliability of experts working in evolutionary science (UK: 72 percent, Canada: 64 percent) or climate science (UK: 64 percent, Canada: 68 percent) was overall perceived as being lower than other areas of scientific research (Elsdon-Baker et al. 2017a, 25–27). What is really fascinating though is that trust in experts

in biology (UK: 89 percent, Canada: 80 percent) and in genetics (UK: 84 percent, Canada: 79 percent) was far higher than experts working in evolutionary science, even though genetics is fundamentally part of evolutionary science, and both are for the most part branches of biological research (Elsdon-Baker et al. 2017a, 25–27).

When we cross-correlated the respondents who reported that they to some degree found it difficult to accept information about evolutionary science in reference to their personal beliefs, we found that endorsement of experts in evolutionary science was unsurprisingly low (UK: 28 percent, Canada: 38 percent). However, we found that within this group of respondents, 54 percent (in both countries) said they found experts in climate sciences reliable. When we compare this to the percentage who found climate scientists reliable from the general population (UK: 64 percent, Canada: 68 percent) we see that while there is a slight decrease it is evidently clear that rejection of evolutionary science doesn't map directly onto rejection of climate science—which further supports one of Evans's main arguments. Even more interestingly, we found that even within the group that had difficulty accepting evolutionary science, trust in the reliability of experts in genetics (UK: 70 percent, Canada: 69 percent) was again substantially higher than endorsement of evolutionary science (UK: 28 percent, Canada: 38 percent). So, somewhat surprisingly, rejecting evolutionary science on grounds of personal beliefs doesn't even necessarily translate into rejection of areas we might have thought would be equally problematic like genetics (Elsdon-Baker et al. 2017a, 25–27). Although further analysis is needed here, we postulate this might have to do with three aspects of evolutionary science. First, that genetics is perhaps seen as more as a facet of modern science or medicine. Genetics enjoys a certain authority in popular culture—in a similar way to what is referred to as the “CSI effect” in court processes.² This phenomenon first noted in the early 2000s refers to the influence of TV crime shows (e.g., *CSI*) leading “jurors to have unrealistic expectations of forensic tests and possibly cause them to incorrectly weigh the importance of either the absence or presence of forensic evidence” (Alldredge 2015, 115). This has knock-on implications for the way that we think about authority in relation to expertise in genetics. For example, as Michael Briody (2004, 231) highlights, “Outcomes of the analyses were that cases with DNA evidence were much more likely to reach court than cases without, while incriminating DNA evidence demonstrated a powerful influence on juries' decisions to convict.” While genetics enjoys a certain “modern” cultural cache, that is hardly the case when it comes to evolutionary science, which is still today more likely to bring to mind a certain bearded Victorian gentleman (Darwin). A second aspect could be the cultural baggage that evolutionary science carries in terms of it being seen as a publicly contentious “theory” that is primarily concerned with debates over human origins. Evolutionary science can for some be effectively (though

erroneously) partitioned more into the domain of a contestable and unverifiable historical “theory” than a scientific “fact.” Third, it is not uncommon in antievolutionary discourse to adopt pseudoscientific terminology to separate out “macroevolution” (the development of one species from another) and “microevolution” (the historical change within a species group that does not lead to a new species). Arguably, it might be that among those with this antievolutionary perspective, the means of inheritance within the human species—that is, genetics—is seen as a facet of microevolution, but not necessarily a facet of the more problematic macroevolution, which is firmly associated with “Darwinian evolution.” This latter issue is, I suspect, likely to be less influential than the wider social narratives about genetics and evolutionary “theory,” as it will mainly be a concern of those who are actively seeking out information about antievolutionary views or those who have a strongly held and well thought-out antievolutionary position. The upshot is that publics’ views don’t fit into the neat epistemic categories we try to impose on them and that there can be an internal logical consistency to a worldview that involves rejecting evolutionary science, but accepting genetics. The interesting implication of the demarcation between the reliability of experts in genetics and experts in evolutionary science, that builds on Evans’s work, is that we perhaps also need to be careful to separate out moral concerns about bioethics in relation to genetics or genetic modification from concerns about human origins in future research.

This leads us neatly to the second core argument that Evans outlines which builds on his first proposition—that while there may be some evidence of localized conflicts relating to specific truth claims (e.g., the age of the Earth), the nature of individuals’ “religious” conflict with “science” has not, as some might expect, predominately to do with propositional beliefs, but is actually more likely to be related to, or be expressed as, moral concerns. These moral concerns might manifest in relation to specific instances of moral outrage against science or groups of scientists: the examples Evans gives here are eugenics and social Darwinism as drivers for enforced sterilization programs in the United States and the Tuskegee syphilis study. Or it could indeed be that moral concerns might manifest as a perceived lack of trust in scientists and their moral motivation. Evans rightly outlines how scientists are portrayed and perceived in popular culture—as in some way different from ordinary folk—to be a contributing factor in a perception that scientists may not employ a similar moral compass to the rest of society. We are all no doubt familiar with the regular trope of a scientist as either mad (Doc Brown from the film *Back to the Future* springs to mind) or bad (Mary Shelley’s *Frankenstein* is perhaps the archetype here). Another more recent trope that Evans highlights is the cold and detached almost inhuman scientist. Evans points to the character Sheldon from the TV series *Big Bang Theory*, Spock from *Star Trek* (which was apparently very successful as a narrative device; it is basically repeated in *Star Trek Next*

Generation and *Star Trek Voyager*). By extension then, Evans argues that if scientists are viewed in popular culture, and thus in public space discourse, as being relatively amoral, they are then being judged on moral terms not necessarily based on truth claims relating to often complex and highly specialized knowledge. Again, this will be familiar terrain for those who research public trust in science. There is a fairly well-established literature in risk and public trust in science. However, as Evans's work highlights, these approaches are rarely applied to religious publics' positions. It is important to note that it is not just the morality of the individual scientist that is key here either; the institutional or political structures surrounding them can also play a part. Publics might, for example, be more likely to support what is deemed as controversial scientific research if it is conducted within publicly funded universities than privately funded companies. For instance, one study conducted in Australia in 2004 highlighted that publicly funded scientists were more likely to be trusted because they were deemed "more likely to produce accessible public benefits and to be more benevolent" (Critchley 2008, 321). This has significant implications for the ways in which we might measure publics' attitudes toward science—be they religious or nonreligious. Similar to Evans's concerns that we must not conflate rejection of one area of scientific research with rejection of the entire apparatus of "science," we must also be mindful of the context of scientists and their research when examining publics' views. This is especially the case when designing survey items or measures—by altering the target of the question from the personal (scientist) to the abstract (science) you can change the results of your research. Trust in experts may be seen to be on the wane, but that doesn't necessarily mean people don't trust the entire scientific endeavor. Similar to the example given above concerning publicly funded scientific research, the political or commercial apparatus surrounding scientific research also plays a role in publics' attitudes. When we are gauging publics' moral concerns in relation to science we need to recognize that this will also work at multiple levels, so they may be in part concerns about a stereotype of detached or amoral individual researchers or be much more aimed at the scientific apparatus as a whole, the perceived agendas of scientific knowledge production and its (geo)political or social context.

I am therefore broadly very sympathetic to Evans's two top-level arguments: that where there are conflicts concerning truth claims between science and religion they are more likely to be forms of "propositional belief" conflict; and that in reality it is more likely to be other more socially situated concerns—like moral concerns—that are being articulated by religious publics. And our own research in this field undertaken in the United Kingdom and Canada provides further empirical evidence as to how a more socially centered approach might radically change or reconstruct the received wisdom about the relationship between science and religion.

This, however, leaves Evans with a conundrum, one which he seeks to explain throughout this book. Namely, if U.S. publics are more concerned with moral issues than epistemic issues in relation to science and religion debates, then why do academics, religious leaders, or other high-profile public intellectuals persist in focusing on epistemic conflict narratives? This is indeed an important question to ask, as it is arguably those of us who work in this field of study who keep perpetuating the idea of epistemic conflict. And it is in this attempt to explain the prevalence of epistemic conflict in scholarly discourse where there is a minor point of departure between our positions, though this does not detract from the strength of Evans's main arguments. At the very outset of his book, Evans outlines the way in which he perceives systemic belief or knowledge to work—employing a pyramid model to show how top-level beliefs or knowledge claims relate to those that underpin them. Rejection of the claims lower down the pyramid will ultimately lead to a rejection of the top-level premise or first principle. So, in this model, rejection of one truth claim is to reject the entire system of knowledge. Evans rightly points out that a “systemic knowledge conflict view” is prevalent in both popular and scholarly discourse. After providing some exemplars of this fairly early on in his book, Evans seeks to explain this prevalence with the key advocates in public debates about the relationship between science and religion, namely, scientists who reflect on publics' views, scientific atheists and their allies, theological science–religion synthesizers, dialogue associations, and, of course, the Templeton Foundation. In the next chapter, he then outlines academic analysts of these debates, namely, historians of science and religion, and sociologists. He gives a good background to the disciplinary trends in sociology in the United States that form the context of current research in this field concluding that “American social science was born with methodological naturalism in its DNA and sociology was born with a commitment to advocating metaphysical naturalism as well. Committed to showing that religious *beliefs* are false, sociologists saw religion as about knowledge about the world, and therefore any conflict with science must be about knowledge” (Evans 2018, 61). This, I think, is entirely uncontroversial and Evans gives a good analysis here. It is contemporary academics and analysts, or “elites,” that lead Evans down an erroneous path. To explain this, he returns to his systemic knowledge model and later goes on to conclude that

One general reason academics assume that any relationship between religion and science will be based on systemic knowledge is that academics are rewarded for using hierarchical logically deductive systems of justification. The problem for contemporary public debate is then that these academic debaters do not acknowledge that their conclusions about the relationship between religion and science may not apply to the general public, who use a different form of reason. (Evans 2018, 160–61)

I entirely agree that academics involved in these debates are responsible for rebroadcasting epistemic or systemic conflict narratives and are not necessarily acknowledging that the conclusions they draw about the “science” and “religion” debate have little to no relation to the lived experience of most publics. However, I have concerns here arising from the demarcation between those Evans classes as elites who think in a systemic knowledge way and publics who don’t. To support his argument Evans draws on the work of Robert Wuthnow and the concept of bricolage to highlight how publics might mash together a range of seemingly inconsistent, incongruous or conflicting positions in relation to science and religion. I wholeheartedly agree that humans are logically inconsistent creatures. What I am not so convinced by is the assertion that academics always think in such neat systemic knowledge systems. Evans’ model of a systemic knowledge system is based on two pyramids—the assertion being that whatever truth claim lies at the top of the pyramid has to be logically consistent with all the truth claims at the bottom (as well as everything in between). So, at the top of the “Science” pyramid is “Facts derived through observation and reason” and at the bottom one of the statements is “the Earth is 4.5 billion years old.” So far so good—this is an acceptable sketch of how a system of thought might be expected to work on paper. Evans argues that “academics and other elites generally hold to these knowledge systems of deductive belief for the issues that they focus upon. Moreover, I would describe the tasks of philosophy, theology and science as making the vertical and horizontal links in pyramids as logically coherent as possible. In fact, you could argue this is what academic training *is*, where expertise on a topic is learning to justify your lower-level beliefs with higher level ones” (Evans 2018, 8). My point is more that I am not convinced that academics or “elites” employ these systems of thought in stark contrast to the public who are only concerned with individual or clustered truth claims or propositional beliefs. My startling claim here then is that I think academics and “elites” are humans too. We don’t always employ systemic knowledge systems in the way Evans envisages and we can also be logically inconsistent when it comes to truth claims from other areas of science beyond our niche areas of expertise—truth claims on which our niche areas of expertise might also depend. Academia from the late nineteenth century onward has become increasingly atomized and specialized—we are all in essence each others’ publics and very long gone are the days of true polymaths. Even within a single discipline or subdiscipline there can be significant divergence in lived experience or hegemonic processes for researchers. So, traditions of thought or norms of what is deemed acceptable in terms of methods, data, or even knowledge claims, can be very different across disciplines, subdisciplines, and fields of study. There are even geographical divergences, so what is seen as the zenith in terms of methodological approaches for an established discipline in one country is snubbed as inadequate in another.

As someone who has worked across a range of disciplines for most of my career I know firsthand it is entirely possible to have propositional belief conflict between two disciplines or even within a subdiscipline or field. I will not give examples here (for fear of offending any and everybody), but I am sure we can all think of someone who is amazingly well informed and educated in their specialty, but nevertheless holds what we might consider to be some very suspect, wildly preposterous or folkish positions about things that are agreed to be a given scientific consensus within our own area of specialism or those closely allied to it. We may be elites in social and economic terms, but we tend to be so atomized that the context of our epistemic elitism can be very limited. It may be that there is an internal logical consistency to our norms of behavior, traditions, or consensus within our research field, but it is a very rare thing indeed for us to think or work back to first principles in most cases. Perhaps only in philosophy, which arguably is the one place where this kind of thinking is most likely to be rewarded, is this really commonplace. The history of science is littered with examples of this, as Thomas Kuhn highlights; academics don't tend to just roll over when new anomalous data completely undermine older data and empirically challenge their way of understanding the world (Kuhn 1959, 1962). For a paradigm to truly shift, it takes the old guard literally fading away or in some cases actually dying (a classic example here would be accounts of Lord Kelvin's initial resolute dismissal of the implications of the discovery of radioactivity in relation to the age of the Earth). In my own area of research interest, the decades-long debates about the plasticity of genotypic/phenotypic expression and the notion of an insulated germline, is another example of this kind of incommensurability. Furthermore, ideas rejected in one discipline may still have a cache in other disciplines for decades after they have been thrown into doubt. Scientific knowledge production is subject to a range of internal hegemonic processes and likewise it cannot ever be entirely divorced from our broader social and cultural contexts.

Moreover, these internal academic debates cannot be separated fully from public space discourse either. To create a separation between academics as always thinking within a systemic knowledge model and publics as not doing so is to create a false boundary that is both implausible to demarcate and would be unlikely to stand up to empirical scrutiny. Nor am I convinced by the principal justification for this assertion—that academics always think in such neat systemic knowledge systems because the reward systems in the academy mean we do. Academic structures are highly competitive and reward results, grants, and publications—not, sadly, the time to muse things out from first principles every time. Academics are often taking results and findings just as much on a basis of judicious trust as publics might. In our daily working lives we trust the systems of checks and balances developed to ensure quality of knowledge production (e.g., peer

review), even where we might recognize these systems are slightly flawed. Some might have the luxury to trawl through everything in theoretical detail examining the minutiae of every truth claim—especially those who work in philosophy and related areas—but not many in the academic machine are rewarded for this. Furthermore, we are also not all taught to think in such in-depth critical or analytical ways, and very few are taught the philosophical or theoretical underpinnings of their own disciplines beyond a very tight frame, if at all. We also have to remember that scientific or academic knowledge is rightly fluid and not set in stone—this means we are constantly having to synthesize new ideas, methods, or data across an increasingly multidisciplinary intellectual landscape. Our academic systems of knowledge are complex, ever-expanding, and always subject to change.

However, it is important to note that this binary elites-versus-publics systemic knowledge model is not actually necessary for Evans's core arguments—which are strong and compelling in their own right. Suffice to say that sometimes publics think in fuzzy ways and don't have systemic knowledge structures underpinning their attitudes toward science or religion. What Evans usefully spends some time doing though (by outlining this distinction between elites and publics) is to attempt to explain why scholars in this field have perhaps been erroneously assuming that publics think in principally epistemic terms in relation to science and religion and in doing so Evans gives us a good overview of the key protagonists in this process. I completely agree we need to shift the focus of work in this field toward a more socially informed approach and here I have common cause with Evans. However, I would perhaps use a similar cultural or social perspective to inform our understanding of the multiple drivers that are responsible for perpetuating an epistemic/systemic knowledge conflict model in both scholarly and academic discourse.

I have sympathy with Evans as it does take some explaining—why, if publics don't appear to be endorsing epistemic conflict, is it such a prevalent idea in both scholarly and public space discourse? However, I don't think we need recourse to a model of systemic knowledge to explain this. It is far more likely that there are processes going on at societal level that we are all subject to, be we elites or publics. Evans's explanation of the earlier development of traditions of thought in the social sciences also probably plays a more fundamental role here. Furthermore, I go back to my earlier point that academics and elites cannot be neatly separated out from publics—and we are thus subject to the same social and cultural narratives as everyone else. These kinds of social narratives are based on implicit biases, stereotypes, and prejudices that we have all been accumulating since childhood—they are insidious and difficult to shake. One contributing factor to the perpetuation of this epistemic conflict narrative in scholarly discourse is, as Evans hints at, a type of social projection. However, this kind of projection is not just limited to academics and elites; these kinds of

processes are evident in public perceptions as well. For example, again from our nationally representative survey exploring public perceptions of evolutionary science and religion (undertaken in the United Kingdom and Canada; see Elsdon-Baker et al. 2017a, 9–14) we found that only a small minority endorse “creationist” positions (UK: 9 percent and Canada: 15 percent).³ Furthermore, of those respondents who identified as religious or spiritual only a minority endorsed this “creationist” position (UK: 16 percent and Canada: 25 percent). So, it is clear that rejection of evolutionary science in favor of a “creationist” position by religious/spiritual publics is actually a minority position in both countries. Additionally, when we asked those publics who identified as religious or spiritual whether or not they personally found it difficult to accept evolutionary science in reference to their personal beliefs—only 19 percent of UK respondents and 29 percent of Canadian respondents found it somewhat difficult, difficult, or very difficult. This compares to 53 percent in the United Kingdom and 41 percent in Canada in the same group who found it somewhat easy, easy, or very easy. This suggests that both levels of rejection and difficulty in accepting evolutionary science for religious or spiritual individuals are relatively low in both the United Kingdom and Canada. However, when we asked all respondents about what they thought about *other* people’s ease or difficulty in accepting evolutionary science, we found that the levels to which people think others would struggle is far higher than what was actually reported to us. We asked what people thought different publics’ and scientists’ levels of ease or difficulty in accepting evolutionary science might be based on whether they were described as being religious, spiritual, or an atheist.⁴ Nearly two-thirds of respondents in the United Kingdom (60 percent) and just over half of respondents in Canada (55 percent) said that they thought religious members of the public would find it very difficult, difficult, or somewhat difficult to “accept information about evolutionary science, in reference to *their* own personal beliefs or way of seeing the world” (see Elsdon-Baker et al. 2017b). Moreover, around a third of respondents in both countries also thought that a scientist who is religious would be much more likely than an atheist scientist to find it to some degree difficult (UK: 33 percent and Canada: 38 percent). What this indicates is that there is a kind of projected conflict—with the *assumption* that religious people will experience this conflict being much higher than the percentage of religious people who actually report experiencing it. We found similar levels of this kind of projection across all respondents—people think that religious publics and, to a lesser degree, religious scientists will struggle, regardless of whether they themselves are religious, spiritual, or nonreligious. The social narrative that it is necessary to reject evolutionary science if you are religious is evidently commonplace across religious and nonreligious groups in both the United Kingdom and Canada. However, this does not match up to the actual proportion of members of the public who reject

or have difficulty in accepting evolutionary science. So, at a societal level, there is a mismatch between how we think religious people think about evolutionary science and what they actually think about evolutionary science. As academics we are also subject to these kinds of narratives and this will clearly impact the way we think about or design our research in terms of the topics we cover, the methods we employ, or the way we frame our research questions (see also Elsdon-Baker 2015, 2018). So it may not be that the reason academics or “elites” are focusing on and projecting epistemic or systemic knowledge conflict onto the public is because we are taught to think in systemic knowledge systems; it might be more simply that we are subject to exactly the same cultural processes, narratives, or influences as the rest of the population and thus simply assume from the outset that the common knowledge idea that conflict between science and religion is predominantly an epistemic issue is actually the case. After all, a lot of the literature concerning science and religion both historically and contemporarily reinforces this idea. The problem then is *not* that the academic system rewards systemic knowledge thinking, it is that it does not always reward those who break with normative values that are embedded in a field of study. Furthermore, where there have been challenges to these kinds of conflict models—most notably in the history of science—because of disciplinary silos these attempts to complexify the narrative around science and religion in society are often missed by those undertaking social scientific research. This is why the more socially oriented research such as that outlined in *Morals Not Knowledge* is so important, as we clearly need to recast these debates as Evans suggests and the research across a range of disciplines in this field needs to consider the social reality of publics’ lived experience.

A related recurrent theme throughout this book is that academics and elites project or broadcast their systemic knowledge conflict onto publics. Again, I for the most part agree with this point, but again I differ when it comes to the explanation as to why. Evans defines elites as “anyone who has a social role that allows them to influence the views of other people beyond their immediate acquaintances and family members *on the issue under debate*” (Evans 2018, 6). The elites in the religion and science debate are predominantly, according to Evans, “academics, scientists and religious leaders, with a smattering of others we could call public intellectuals” (Evans 2018, 6). This description of elites works on one level—these are for the most part perhaps the key protagonists in weighty intellectual discussion of religion and science debates. But they are far from the only people who can “influence the views of other people beyond their immediate acquaintances and family members *on the issue under debate*.” To give an indication of why this is increasingly a slightly problematic definition, I will give a quick overview of some of the data we collected in the United Kingdom and Canada in 2017.⁵ In a section of one of our surveys (the results of

which are yet to be released), we asked respondents about what sources of information they might turn to when seeking out new information about “religion, spirituality or religious/spiritual leaders,” and in a separate question “science, scientists or scientific research.” We offered a wide range of choices including academics, scientists, and religious leaders—the elites that Evans proposes are able to influence views of others. In both countries, across all groups who self-identified as religious, spiritual but not religious, or nonreligious, the top source cited for information about both religion *and* science was of course the internet. Now obviously, Evans’s elites use the internet as tool for dissemination, but so do a lot of other people who do not neatly fit into this category. If we looked at a related area of public concern around antiscience rhetoric—antivaccination groups—there are organized closed groups, which have significant followings on Facebook.⁶ The leaders of these groups would fit into the definitional model of elites that Evans outlines, but are clearly not the more traditional types of elites, “academics, scientists and religious leaders, with a smattering of others we could call public intellectuals,” that Evans is targeting. The influence of social media, the internet, and wider popular culture cannot be ignored here either. These are hugely influential in these debates, but it is far harder to map their impact. This could run from documentaries or films that make assumptions about, or amplify, religious opposition to Darwin or Galileo (or any of the other usual suspects), to witty memes on Facebook, right through to fictionalized accounts of a conflict between science and religion in novels, TV, or films. As Evans notes when conducting an internet search, “an uninformed person will conclude that, for the public, religion and science are locked in a systemic knowledge relationship that sometimes results in conflict” (Evans 2018, 164). The epistemic conflict narrative is embedded in covert and overt ways in lot of the popular culture we consume on a daily basis—yet very little work has been undertaken to study this.⁷ Again, all of the people who are influencing these social narratives are themselves consuming this steady diet of information that reinforces an epistemic conflict narrative, be they overt influencers (academics or elites identified by Evans) or indeed the more covert influencers like media professionals, science communicators, teachers, artists, writers, film makers, and so on, each unwittingly repackaging, rebroadcasting, and reinforcing this narrative each time. It is also important to note as well that as ever, from newspapers, to books, through to online click bait, conflict sells. And, on a somewhat more cynical note, for some of the advocates that Evans outlines—not least those he refers to as scientific atheists—there is money to be made and a ready following to be gained by endorsing and promoting an epistemic conflict narrative.

Overall, Evans is clearly on his home ground in later chapters of this book and they make for engaging reading. One of the limiting factors in expanding his argument is that, given the predominance of research that

has taken an epistemic or systemic knowledge conflict as its primary focus to date, there is a dearth of research that has been conducted that focuses on other social or cultural factors, let alone moral debates. Evans is also at pains to highlight that he is only really focusing on extant data and public debates in the United States. However, in light of these two limitations, the research outlined here is persuasive. Evans's theories are expansive and he sets out some entirely new, exciting, and valuable directions of study in relation to science and religion focusing on three core areas: the moral values of science, the morally expressive nature of science and technology, and moral conflict over specific scientific experiments and technologies.

One last point that is worth reflecting is that we need to be mindful of this new era of research and understanding of the relationship between science and religion. Any social scientific research in this field needs to be led by public perceptions, attitudes, and views, not by concepts we project onto them. While moral concerns, issues, and debates have long been overlooked, this does not mean that there are no "knowledge-based" conflicts between science and religion. It is important to note that Evans is measured in his outlining of these new territories of research—it is clear as he suggests "sociologists of religion and science should not presume that those they study are in systemic conflict, but they *should* continue to focus on instances of propositional belief conflict. That is, opposition to scientific claims about human origins remains an important sociological phenomenon—it just does not stand in for a conflict over the nature of knowledge" (Evans 2018, 164). This, then is not a claim that morality is the only show in town. And, we should rightly guard against essentializing all publics' views into categories of moral concerns, lest we repeat the mistakes of scholars who have previously essentialized all publics' views into categories of epistemic concerns. There are other factors that neither sit in the older epistemic conflict model approach nor the moral conflict model approach that are also worthy of further investigation. One question we need to ask relates to the salience of antiscience positions to publics and why people might adopt a moral or epistemic propositional belief conflict position. Is it that individuals are adopting a particular position on a science- or technology-related issue because that particular issue—be it a moral concern or a propositional belief conflict—is salient to them *or* is it that they are adopting a position because it fits in with a wider worldview or social identity they already hold? Is it perhaps not that people are always adopting an antiscience positions because it doesn't fit with their religious worldview, but rather that sometimes they are adopting a position on "science and religion" (moral or otherwise) in order to justify or reinforce their worldview or social identity—be that religious, spiritual, or nonreligious? If it is the latter we need to also build a better understanding of the social, psychological, political, and broader cultural factors shaping people's social identities in relation to science and religion debates. And,

in doing so, we can start to untangle the conundrum at the heart of this book—what is really driving the enduring social narrative that there is an intrinsic conflict between “science” and “religion.”

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NOTES

1. For an expansion on this and related concerns see Cantor and Kenny (2001).
2. The U.S. TV series *CSI: Crime Scene Investigation* was a procedural forensics crime drama that ran through fifteen seasons from 2000 to 2015.
3. Only 9 percent of all UK and 15 percent of Canadian respondents selected the “Humans and other living things were created by God and have always existed in their current form” option when asked “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?” (Elsdon-Baker et al. 2017a, 9-10)
4. (1) A member of the general public; (2) a member of the public who is religious; (3) a member of the public who is spiritual; (4) a member of the public who is an atheist; (5) a scientist; (6) an evolutionary scientist; (7) a scientist who is religious; (8) a scientist who is spiritual’ and (9) a scientist who is an atheist.
5. The study was conducted in two countries: the United Kingdom and Canada by YouGov. A survey of 2,129 UK adults was undertaken online between May 12 and June 6, 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 May 17 and June 12, 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.
6. <https://www.theguardian.com/technology/2019/feb/27/facebook-anti-vaxx-harassment-campaigns-doctors-fight-back>
7. For some good examples of research in this area to date, see Mason-Wilkes (2018) and Kirby and Chambers (2018).

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