Using a Reconciliation Approach to Teach Evolution May Help Religious Students Remain Faithful

Danny Ferguson, Ethan Tolman,
Spencer Shumway, and Cassidy Shively

Many religious people struggle to accept the theory of evolution, and about 40 percent of Americans reject the theory outright, preferring a literalist, creationist account that confirms a young earth.[1] As Latter-day Saints ourselves, we understand the trepidation surrounding the idea that perhaps evolution contradicts our belief of an earth created by a loving Father and Savior. People may feel that the scientific theory of evolution implies that there is no need for a God or that our existence is simply an accident. As college-age youth, we are familiar with the struggles that students face as they confront evolution in their science classes. We are saddened by, but sympathize with, the growing trend in our generation to leave organized religion, preferring instead to embrace the alternative path of secularism.[2] It is no wonder that we feel such deep conflict, having been bombarded by misinformation and conflicting messages from the world around us.

Take, for instance, typical kids growing up in the United States. They may have encountered a high school science teacher who took an

1. Megan Brenan, "40% of Americans Believe in Creationism," Gallup, July 26, 2019, https://news.gallup.com/poll/261680/americans-believe-creationism.aspx.

2. Michael Lipka, "Religious 'Nones' Are Not Only Growing, They're Becoming More Secular," Pew Research Center, November 11, 2015, https://www.pewresearch.org/fact-tank/2015/11/11/religious-nones-are-not-only-growing-theyre-becoming-more-secular; Alan Cooperman and Gregory A. Smith, "The Factors Driving the Growth of Religious 'Nones' in the U.S.," Pew Research Center, September 14, 2016, https://www.pewresearch.org/fact-tank/2016/09/14/the-factors-driving-the-growth-of-religious-nones-in-the-u-s.

atheistic approach to science, telling the students that their religious beliefs have no place in the classroom and that evolution provides a complete explanation of how life (and humans) emerged on this planet and therefore an argument against the need for any supernatural power.[3] On the flip side, they may have encountered high school science teachers who take the opposite viewpoint and teach evolution flippantly, as "just a theory," or not at all, preferring to avoid the conflict they themselves might feel.[4] These students may have interacted with friends or family members who hold staunch opinions in one direction or another and who forcibly share those opinions, hoping to influence young minds. They may have church leaders who actively preach against evolution, suggesting that it is a tactic designed to deceive them and lead them away from their faith. Even in the media they consume, they are bombarded with misinformation about evolution (such as the Pokémon portrayal of evolution as more of a metamorphic event, the *Simpsons* episodes that pit religious fanatics against ardent atheists, the memes that portray monkeys morphing into man, and so on).

And as these students enter a college campus, the battle continues. Statistics show that the majority of those teaching biology courses at the undergraduate level do not believe in God, and even less so if they specialize in evolutionary science.[5] While many (and probably most) do not set out to actively discredit religious faith, there are many who preach an atheistic version of evolution.[6] It is no wonder that students feel that they are faced with a presumed dichotomy, an inescapable choice between science and their faith. Sadly, some students decide to leave their religion when they feel forced to choose. Other students choose their religious identity over the science, feeling like they need to

---

3. M. Elizabeth Barnes and Sara E. Brownell, "A Call to Use Cultural Competence When Teaching Evolution to Religious College Students: Introducing Religious Cultural Competence in Evolution Education (ReCCEE)," *CBE—Life Sciences Education* 16, no. 4 (Winter 2017): 2–3.

4. Randy Moore and Sehoya Cotner, "The Creationist Down the Hall: Does It Matter When Teachers Teach Creationism?" *BioScience* 59, no. 5 (May 2009): 431–32.

5. Elaine Howard Ecklund and Christopher P. Scheitle, "Religion Among Academic Scientists: Distinctions, Disciplines, and Demographics," *Social Problems* 54, no. 2 (May 2007): 296, 299; Gregory W. Graffin and William B. Provine, "Macroscope: Evolution, Religion, and Free Will," *American Scientist* 95, no. 4 (July–August 2007): 294–97; see also Brenan, "40% of Americans Believe in Creationism."

6. M. Elizabeth Barnes and others, "'Accepting Evolution Means You Can't Believe in God': Atheistic Perceptions of Evolution among College Biology Students," *CBE—Life Sciences Education* 19, no. 2 (Summer 2020): 3.

reject the theory of evolution to be faithful to their religious beliefs. We, as past students at Brigham Young University, want to make it known that the teaching of evolution at BYU is different from most other institutions and that this difference helped us embrace the science while also increasing our testimonies of Jesus Christ and our Heavenly Father, the loving Creators of this planet. The purpose of this essay is to share with the reader this unique approach.

A Reconciliation Approach

Let's start with the approaches to teaching evolution that we have seen. Given that the theory of evolution is the central theme in biology,[7] increasing student understanding and acceptance has been a popular and productive research pursuit for decades that has led to a wide variety of proposed methods, some better than others. A particularly harmful approach is to teach that the rejection of evolution is a product of some kind of deficit (we call this a "deficit model"); that is, those who do not accept evolution lack knowledge, intelligence, or reasoning abilities.[8] Methods stemming from this approach are highly ineffective, often causing students to dig in their heels even further. Another approach is to assume a direct relationship between understanding and acceptance. In other words, you can teach the facts of evolution as a way of increasing acceptance. This method has been shown to be marginally successful among religious individuals,[9] given that worldviews are not easily changed by increased knowledge that is seemingly contradictory to those worldviews. In fact, these methods seem to ignore these conflicts in worldview and the presumed cultural conflict that religious students may be feeling. This type of education can drive away from biology many religious students who feel like they don't belong. However, focusing on how science is done, commonly called "the nature of science,"[10] has

7. See Theodosius Dobzhansky, "Nothing in Biology Makes Sense Except in the Light of Evolution," *The American Biology Teacher* 35, no. 3 (1973): 125–29.

8. See, for instance, Anton E. Lawson and John Weser, "The Rejection of Nonscientific Beliefs about Life: Effects of Instruction and Reasoning Skills," *Journal of Research in Science Teaching* 27, no. 6 (1990): 589–606.

9. Amanda L. Glaze, M. Jenice Goldston, and John Dantzler, "Evolution in the Southeastern USA: Factors Influencing Acceptance and Rejection in Pre-Service Science Teachers," *International Journal of Science and Mathematics Education* 13 (2015): 1191, 1203.

10. This refers to the process of hypothesis testing: experimentation, data gathering, data analysis, and interpretation.

shown promise in helping to increase evolution acceptance among college students.[11] Along with teaching the nature of science in biology classes or other science classes, professors at BYU use an additional approach dedicated to helping students directly overcome feelings of conflict they may have between science and religion: the reconciliation approach.

The basic idea behind a reconciliation approach is to help individuals realize that their religious beliefs and evolutionary theory are not mutually exclusive. Dr. M. Elizabeth Barnes and Dr. Sara E. Brownell provided a useful outline for this approach, which they labeled "religious cultural competence in evolution education" (ReCCEE for short), that includes six practices biology instructors can follow: (1) acknowledge that students may perceive conflict between evolution and their religious beliefs; (2) discuss students' views on evolution and religion and encourage them to explore this relationship further; (3) teach students about the nature of science and different ways of finding truth; (4) explain that there are multiple ways of viewing evolution and religion outside of atheism and a literal belief in the biblical creation story, including that evolution was guided by a creator; (5) provide examples of religious leaders and biologists who embrace both evolution and religion; and (6) explicitly discuss the compatibility between evolution and religion and share their own experience reconciling their religious beliefs with evolutionary theory.[12] Our reconciliation approach is patterned after these recommendations (but has been practiced in one form or another at BYU for decades[13]). This approach typically manifests in introductory biology classes where the professor devotes a whole class period to discussing the reconciliation of the science of evolution with our religious beliefs as Latter-day Saints. In this class period, the professor follows the six steps of ReCCEE, provides additional context about the history of evolution in the Church, highlights the fact that the Church has no

11. Ryan D. P. Dunk and others, "A Multifactorial Analysis of Acceptance of Evolution," *Evolution: Education and Outreach* 10, no. 1 (2017): 4–5; Hernán L. Cofré and others, "The Effect of Teaching the Nature of Science on Students' Acceptance and Understanding of Evolution: Myth or Reality?," *Journal of Biological Education* 52, no. 3 (2018): 255.

12. Barnes and Brownell, "Call to Use Cultural Competence," 5–6.

13. William S. Bradshaw and others, "A Longitudinal Study of Attitudes Toward Evolution Among Undergraduates Who Are Members of The Church of Jesus Christ of Latter-day Saints," *PLOS One* 13, no. 11 (2018): 1–29, https://doi.org/10.1371/journal.pone.0205798.

official position concerning evolution,[14] and shares his or her personal reconciliation story and testimony.

Having been student researchers in Dr. Jamie Jensen's lab at BYU, and having had professors who used this approach, we found that this was an effective way to increase acceptance in traditional undergraduate classroom settings at BYU, at other private religious institutions of various faiths,[15] and even when taught in a religion class instead of a science class.[16] This approach is also productive in less traditional settings. In our lab, we found that a fifteen-minute live-animal presentation, which incorporated a reconciliatory model, increased acceptance of evolution among patrons at a small aquarium,[17] and Jasmine M. Truong, M. Elizabeth Barnes, and Sara E. Brownell demonstrated that a six-minute ReCCEE-based lesson at a public institution increased undergraduate acceptance of evolution.[18] In all these instances, we saw no reduction in religiosity by improving evolution acceptance. We even interviewed past students who had been through this approach to determine its effect on their testimonies. All interviewees indicated a positive effect.

As students who have been through BYU and taken a biology class in which the reconciliation approach was used, we would like to share our own personal experiences. These experiences can be found below, following our names (Danny, Ethan, Spencer, and Cassidy). Additionally,

---

14. See "What Does the Church Believe about Evolution?," *New Era* 46, no. 10 (October 2016): 41; and chapters in Jamie L. Jensen, Steven L. Peck, Ugo A. Perego, and T. Benjamin Spackman, eds., *The Restored Gospel of Jesus Christ and Evolution* (College of Life Science, Brigham Young University, 2025).

15. Katie F. Manwaring and others, "Influencing Highly Religious Undergraduate Perceptions of Evolution: Mormons as a Case Study," *Evolution: Education and Outreach* 8, no. 23 (2015): 1–12; John Lindsay and others, "Using a Reconciliation Module Leads to Large Gains in Evolution Acceptance," *CBE—Life Sciences Education* 18, no. 4 (2019): 1–11.

16. Ethan R. Tolman and others, "Reconciling Evolution: Evidence from a Biology and Theology Course," *Evolution: Education and Outreach* 13 (2020): article 19, https://doi.org/10.1186/s12052-020-00133-9.

17. Ethan R. Tolman and others, "Testing the Effect of Aquarium-Based Learning on Patron Acceptance of Evolutionary Theory," *Journal of Zoo and Aquarium Research* 9, no. 2 (2021): 102–9.

18. Jasmine M. Truong, M. Elizabeth Barnes, and Sara E. Brownell, "Can Six Minutes of Culturally Competent Evolution Education Reduce Students' Level of Perceived Conflict Between Evolution and Religion?," *The American Biology Teacher* 80, no. 2 (2018): 106–15.

we will share some quotes from other students who have also experienced this same approach and documented their experiences through anonymous essays.

Danny

I am currently a postdoctoral researcher in the Department of Biology at North Dakota State University, having completed my PhD at BYU, where I studied pedagogical approaches to teaching evolution to religious audiences with the goal of preserving these students' religious identity. I also investigated the influence of popular culture like Pokémon on student understanding and acceptance of evolution.

I grew up in Mapleton, Utah, in an active Latter-day Saint family and served a mission in the Philippines. I believe that the way I was raised and my love for living organisms shaped my desire for a deeper understanding of the creation and evolution of life on earth.

Growing up, I was one of those kids who was always bringing things home that my parents didn't want (for example, snakes, frogs, and insects). Because of this, I had a multitude of pets. My curiosity was piqued during one particular summer when I was fourteen and I got fifteen chickens for my birthday. I didn't have a lot of friends, so I spent most of my summer outside in my chicken coop watching the chickens run around chasing bugs and mice. I became increasingly curious about my chickens' behaviors; for example, why did they hide when hawks would fly over the coop? I didn't teach them that. Why would they chase each other when one of them had a grasshopper? Why were our roosters so mean? The time I spent outside pondering such things really influenced my desire to better understand the world we live in.

During my mission, as I focused on teaching the gospel, my desire to learn about and understand our wonderful world waned. This was not a problem; I loved my mission, and I loved learning the gospel more fully. However, after I came home from my mission, I found it difficult to find my path forward when I realized that what I had loved most growing up had been pushed aside and forgotten. Like most parents, mine recommended taking some classes to help me find a path for myself. It wasn't until my fourth semester at Utah Valley University that my love for and curiosity about living things was rekindled in a biology class; biology spoke to me. However, the topic that made the greatest impression on me in this biology class was the theory of evolution. Up to this point, my understanding of evolution had been extremely limited. Learning the full mechanisms behind it brought my love for living organisms into

a new and wonderful light. Unfortunately, all the joy and excitement this class brought me was also coupled with agony and disappointment. Where did evolution fit into my religion? I wondered, Is religion compatible with evolution? Do I have to choose between my religious beliefs and evolution? I was lost. Thankfully, my professor held a seminar outside of class for those who wanted to know his personal views on evolution and religion. It turns out that my professor was an active member of The Church of Jesus Christ of Latter-day Saints, a believer in God who accepted evolution and who had successfully reconciled it with his religious faith. When my professor shared his beliefs, my conflicted feelings about evolution abated.

That opportunity to talk to someone who understood my pain in the very moment of my struggle really pushed me onto my current path of helping others who are going through something similar. I now accept the theory of evolution as a scientifically valid theory, and I am still a believer in a loving Heavenly Father and Creator. The research I do is extremely impactful for me as a person of faith. I was given the gift of learning evolution from a faithful professor who understood the importance of teaching evolution in a way that makes everyone, including religious people, feel welcomed. Evolution is not always taught this way, and many students feel that they have to choose between religion and science. As a researcher, I want to help all religious students not only keep their identities in a science classroom but also become more accepting of science as another way of gaining truth. In one of my favorite books, *Faith of a Scientist,* Henry Eyring, a world-renowned chemist and member of the Church, said, "Since the Gospel embraces all truth, there can never be any genuine contradictions between true science and true religion."[19]

Ethan

I am currently a postdoctoral research associate in the Department of Biological Sciences at Virginia Tech University. I earned a PhD in evolution, ecology, and behavioral ecology at the City University of New York and Richard Gilder Graduate School at the American Museum of Natural History's Partner Program. At BYU, I earned a bachelor's degree in genetics, genomics, and biotechnology. Most of my research has focused on the evolution and genomics of dragonflies and damselflies.

19. Henry Eyring, *The Faith of a Scientist* (Salt Lake City: Bookcraft, 1967), 41.

I have always found biology to be a fascinating subject, and when I was younger, I would spend a lot of time learning about it. At some point, I came across the theory of evolution. It always made logical sense to me. I didn't feel that my belief in evolution and in the doctrine of The Church of Jesus Christ of Latter-day Saints were at odds with one another until I began to notice antievolution sentiments expressed by those who held my same religious beliefs. I began noticing more anti-evolution rhetoric in church classes, in seminary, and from extended family members. Sometimes it was even suggested to me, supported with quotes from General Authorities, that it was heretical for a member of The Church of Jesus Christ of Latter-day Saints to accept evolution. It didn't feel right to reject either my acceptance of evolution or my testimony of the restored gospel, but there was a time in my life when thinking about evolution or the creation stories in scripture brought a lot of discomfort and conflict.

I was fortunate enough to have parents who accepted both evolution and the restored gospel and a grandfather who was a biology professor and strongly advocated for evolution education while remaining a faithful member of the Church. Through conversations with my parents and grandfather, I came to understand that evolution and the gospel do not have to be two separate entities in my life. They are two lenses that work together to provide a clearer picture of the world. It was also helpful for me to understand that past Church leaders who rejected evolution were not speaking for the Church but offering their own opinion, since Church doctrine is established by the First Presidency and Quorum of the Twelve. I also discovered that Church leaders have expressed support for evolutionary theory in the past. These realizations helped me leave behind the conflict I once felt. When I learn about evolution now, it increases my reverence for, and builds my testimony of, God's role as the Creator.

Spencer

I am currently a medical student at the University of Oklahoma College of Medicine. I graduated with a bachelor's degree in biochemistry from BYU. I grew up in Utah among faithful members of The Church of Jesus Christ of Latter-day Saints. Although my parents have taken classes at BYU, neither of them know much about biology. I remember, as a child, having a conversation with some family members about evolution. Based on erroneous ideas of evolution, we decided that those who accepted evolution were either mistaken or misguided. Like many people, I held a negative and distrustful view of evolution. However, I also had a natural

and intense love for science and good parents who fueled that fire with things like kids' chemistry books and trips to zoos and aquariums.

Eventually, I decided I wanted a career in medicine, and my desire to get more involved in science grew. I took biology classes in high school and came to love the subject. Despite my earlier rejection of evolution, I actually came to accept it pretty quickly in high school. I didn't dwell too much on potential conflicts between evolution and the Church, and based on the enormous amount of scientific evidence available, I figured evolution had to be an accurate depiction of the world.

After high school, I served a mission in the Four Corners region of the Southwestern United States. On my mission, I became much more aware of (and worried about) the potential conflict between the Church and the science of evolution. Without many resources available to me but with a strong belief in the Church I was representing, I came to think that maybe the Church of Jesus Christ is against evolution. This saddened me, but I was determined to investigate this further when I got home from my mission. And so I did. I read many books, articles, and resources and found differing opinions held by various members and leaders of the Church. I came out of this experience mostly confused. Luckily, shortly after my mission, I started school at BYU, and the first class I attended was Biology 130. A few weeks into the course, my professor addressed the subject using a reconciliation approach. That class became pivotal in helping me resolve all my evolution concerns. Talk about a reconciliation event!

Learning about evolution has helped me to understand the "natural man" (Mosiah 3:19) inherent in humanity. I see great value in recognizing and studying our connections to other animals and our ancient nonhuman ancestors. As someone training to be a physician, I find the study of evolutionary biology riveting, especially as it relates to developing cures for diseases and fighting off natural human frailties. I can now say with full faith that I feel perfectly comfortable accepting evolution. Though the Church is neutral on the matter, my faith and the theory of evolution are reconciled.

Cassidy

I graduated from BYU in 2020 with a bachelor's degree in biology, and shortly after, I worked for the Smithsonian in the National Museum of Natural History as part of the David H. Koch Hall of Human Origins. I am now substitute-teaching science and preparing to pursue a graduate degree in genetic counseling.

I grew up in a small town in Idaho and do not remember evolution being discussed. I had never heard evolution referred to as "evil-u-shun"; I don't remember people saying that evolution was contrary to the idea of a Creator. Evolution was never a topic I even thought to consider. But then, when I was in tenth grade, all of a sudden it was in every conversation. And the general attitude toward it was that acknowledging the idea of evolution made God less powerful and narrowed his role in our existence. At this same time, I discovered my love of biology. I had an incredible teacher who worked with a diverse background of religions. When we reached the evolution section, she emphasized that, in the context of her class, evolution simply referred to a change in allele frequencies (that is, varieties of genetic features) over time. The broad impact of those changes (for example, speciation events or the idea of a common ancestor of humanity) was not talked about very much, but I remember feeling some discomfort with the subject. In my mind, the existence of evolution seemed to imply that there was no place for the core beliefs I had held my entire life. If humans were the result of random changes in genetic features over time, what made me distinct from any other living creature on the planet? What made me a child of God? This thought scared me so much that I couldn't stand to dwell on it.

Fast-forward to twenty-year-old me walking around Ecuador on my mission, sharing my beliefs and taking time to contemplate my place in the world. I loved coming up with questions that made me reevaluate my role and purpose in life. I spent hours trying to understand why I was here and where I came from. This trail of thought brought me back to the question of not only why I was here but also how I came to be here. This time, I felt less fear and more curiosity. So when I got home from my mission and attended another semester of classes at BYU, I took a biology course. I had so many questions, but none loomed larger than that of human origins. This time, when my classmates and I reached the section on evolution, there was no shying away from the implications of change over time. I was fascinated. More than that, when my professor talked about how his faith and his absolute and complete acceptance of evolution were not mutually exclusive, I discovered that I no longer feared my questions. It was one of very few times in my life when I felt my understanding of God and his plan grow instantaneously.

I still have many questions, most of which I realize I won't be able to fully answer with the range of information available to me at this time. And I still pursue answers, because as I learn more about the origins of human life, I gain greater appreciation for Heavenly Father and the awesome scope of his plan.

What Do BYU Students Think About Evolution?

Over several years, we, as student researchers in the Jensen lab, surveyed students enrolled in introductory biology courses regarding their acceptance of evolution at the beginning and end of the semester. In conjunction with each survey, Dr. Jensen asked students to write a short essay about their thoughts on evolution. In between the two surveys, students were taught evolution with the inclusion of a reconciliation module. Survey data show that students almost universally increase their acceptance of evolution after that module.[20] Student essays reveal that students' feelings toward evolution vary greatly, but a few common themes clearly emerge. The following explanations and quotes are taken from these essays to illustrate these themes.

Student quotes about . . .

. . . feeling trepidation toward learning about evolution, prior to class.

- When the word "evolution" comes to my mind, I feel a sort of spirit of confusion or contention.
- Evolution makes me think of atheists and arguing with an atheist friend of mine. . . . While there is some truth to the theory of evolution, I believe it to be largely false.

. . . looking for ways to reconcile science and religion.

- I recognize the evolution of species all around me. . . . I can clearly see the resemblance between primates and humans. We are so alike. We look, think, reason, and even feel in similar ways. Evolution makes sense to me. . . . I know that God is the Creator. I know that the [biblical] account of the Creation is true. It does not make sense to me that humans are a coincidence that happened by some chance of evolution. My source for this belief is different than that for evolution. . . . Now the trouble, or the "unknown," comes when I try to combine both of these truths. Archeological, geological, and any other "-logical" evidence one may find doesn't disprove the scriptural accounts. . . . Frankly, I have thought of how

20. Manwaring and others, "Influencing Highly Religious Undergraduate Perceptions"; Lindsay and others, "Using a Reconciliation Module"; Daniel G. Ferguson and Jamie L. Jensen, "Role Models, Compatibility, and Knowledge Lead to Increased Evolution Acceptance," *Evolution: Education and Outreach* 14, no. 1 (2021): article 16, https://doi.org/10.1186/s12052-021-00155-x.

to combine them, and how to make them work together, and have gotten almost nowhere, or at least not anywhere that makes sense to me.

- I honestly have no clue what to think about evolution. All I know is that I have constantly struggled with the view of my church versus my view of evolution. . . . Thinking about evolution scares me because if it's true, does that mean my religion is false? I would hope that both my religious beliefs and evolution could exist in harmony and fit together somehow. For right now though, I don't know if that is possible or if that works, but I would like to see if it does.
- I have always been confused as to how evolution and religion can . . . coexist, [since] they seem to be separate explanations for our existence.
- I could see Heavenly Father using evolution to create humans, or maybe he just made us without evolution. I don't know. I'm not opposed to either way.

. . . their appreciation of a role model.

- I feel like Dr. [Jamie] Jensen had a really good way of combining the theory of evolution with religion, making it a lot more feasible for students to accept who maybe were uncomfortable with the subject or don't really understand it.
- [I liked] how she [Dr. Jamie Jensen] can actually show that, you know, religion and evolution aren't trying to contradict one another; like they don't have to be that way. You can . . . look at evolution from a gospel-centered perspective. . . . [Evolution is] not contradicting anything necessarily about whether God exists or not. . . . [It's] just taking the facts that we have and trying to understand them as we see them at the moment. . . . We're working towards finding that complete truth or the best understanding we have.

. . . their ability to reconcile.

- Now, I still may not have a "concrete" opinion, but I can say that the more information I have learned about evolution, [the more it] has helped me to grow my acceptance and understanding of why we have evolution. I can see why some people would say that Christians should not believe in evolution, but when looking at the facts, however simple or complex, one can really understand

how evolution would fit into a religious or other belief's values and timeline.

- I would say my thoughts on evolution have changed significantly since the beginning of the semester. In the beginning, I was very against it. Now, while I don't think it is 100 percent proven, I do think that it is a possible explanation for how organisms came to be on earth.
- Before this unit I would not have entertained the thought of evolution. . . . I then learned that the Church hasn't made a statement confirming or denying that evolution is real. This means that believing in evolution or not believing in evolution is neither right nor wrong. This makes me lean more toward the idea that evolution is real.
- At the beginning of this unit, I was still very skeptical about evolution. I thought that it conflicted with the teachings of the Church, especially relating to the origin of [humanity]. But now I've learned that the Church doesn't actually have a decided stance on the subject and that what I'd read was not the official position of the Church. This helped me to be much more open to the concept of evolution.

. . . finding peace from being able to reconcile.

- I feel like I can talk more intelligently about things, and . . . I wasn't necessarily . . . at peace with things before, but . . . I am at peace with things now.
- It increased [my testimony]. . . . It was cool. . . . It's not so much that it gave me new information; rather [it] gave me different ways to collect information. It gave me a different mindset that was a little bit more open to realizing that I might be wrong.

As shown by the quotes above, prior to the course, many students express a hesitation at—even at times a fear of—learning about evolution. Many are seeking ways to bring science and evolution together but, up to this point, have been given no bridge to help them reconcile. Students appreciate a role model who can provide them with tools to bring the science and their faith together. As you can see from the quotes we shared, many students find ways to successfully bridge this gap, and they find peace in doing so. As past BYU students who went through what these students have, and as researchers who studied this process, we

want to emphasize that it is encouraging and comforting to learn that we can reconcile the religion we love with the science we learn.

Conclusion

As members of a religious community and as students invested in science, reconciling religion and evolution is a fundamental step on our path to becoming successful scientists and faithful religious individuals. The long-standing opposition between the two ways of knowing has left many students feeling like they have to choose one or the other. By forcing this choice, we lose out on the incredible benefits offered by embracing both ways of knowing. As a religious university, if we leave our students with no way to harmonize these two ways of knowing, have we done our best to educate them and promote the critical thinking they will need to confront all the other theological challenges they will encounter?

Each of the students who contributed to this piece has had different experiences with opposition to the theory of evolution. The quotes and experiences gathered from biology classes indicate that this issue affects a large portion of our student population and that a great deal of confusion continues to surround the subject. For some here at BYU, the perceived conflict between science and religion has been a source of much doubt and uncertainty, but it does not have to be that way. As research suggests, the reconciliation approach is not only effective in helping students learn about and accept evolution, but it also has the potential to ease some of the doubts students experience with their religious beliefs. When students leave their classrooms at BYU, the goal is for them to be prepared for success in all aspects of their lives. By helping them to reconcile their doubts and questions in issues pertaining to science and religion, BYU faculty are providing them with a template for seeking understanding in relation not only to evolution but to every other major question they may encounter.

This article was originally published in *The Restored Gospel of Jesus Christ and Evolution,* ed. Jamie L. Jensen, Steven L. Peck, Ugo A. Perego, and T. Benjamin Spackman (College of Life Sciences, Brigham Young University, 2025), 263–80.

Danny Ferguson is currently a postdoctoral researcher in the Department of Biology at North Dakota State University. He studies biology education with an emphasis on evolution and is currently working to understand the impact of systems thinking skills and

modeling on students' evolution knowledge. He is married to Gina, and together they have five kids.

Ethan Tolman first began pursuing a career in the life sciences as a volunteer and then employee at the Aquarium of Boise in high school. He went on to earn a bachelor's of science in genetics, genomics, and biotechnology from Brigham Young University. As an undergraduate, Ethan worked as a research assistant and published papers on several projects related to public acceptance of evolutionary theory and willingness to engage in nonpharmaceutical interventions to curb the spread of COVID-19. Ethan then earned a PhD in evolution, ecology, and behavioral biology through the City University of New York and Richard Gilder Graduate School at the American Museum of Natural History's Partner Program, where he studied the evolutionary and conservation genomics of Odonata (dragonflies and damselflies). Ethan is currently a postdoctoral research associate in the Department of Biological Sciences at Virginia Tech University. His research interests include resolving the evolutionary history of dragonflies and damselflies, the role of hybridization as a driver of biodiversity, and the genomics of habitat specialists.

Spencer Shumway is currently a medical student at the University of Oklahoma College of Medicine. Prior to medical school, in 2023, Spencer graduated with a bachelor's of science in biochemistry from BYU. As an undergraduate researcher at BYU, Spencer attended and presented at national conferences and published several papers. He is a devoted husband and father of two children. Spencer enjoys spending time with his family, gardening, playing basketball, and is an avid film enthusiast.

Cassidy Shively graduated from Brigham Young University in 2020 with a bachelor's degree in biology. Since then she has worked as an independent contractor for the Smithsonian natural history museum, an HR specialist for a biostatistics company, and has recently returned to her love of teaching as a substitute teacher in the charter schools of Las Vegas. She is also preparing applications to genetic counseling programs across the United States and Canada. She still loves to talk about the reconciliation research that she participated in at BYU and loves to see its practical application as friends and family are able to see the connections between science and the gospel.