It happened. Bill Nye faced Ken Ham to discuss evolution versus creation. Though this had been strongly advised against, it carried on as planned. Of course, it should have because the fallout of pulling out a debate would have been worse than the debate itself. So what happened during the debate? Did it hurt evolution? Not at all. Nye presented a powerful and strong case for why the theory of evolution is the best explanation for the diversity of life on this planet. He presented understandable slides that show geological evidence for the age of the earth and explained how species diverged over billions of years.

Ham however presented one piece of evidence all night, the Bible. This was mistake number one seeing as how the Bible is a claim, not evidence. Ham also attempted to present two types of sciences, historical and observational. He also attempted to redefine the definition of evolution, claiming secular scientists hijacked the word. This presented a strong weakness in his case for creation because his case cannot be made using words already defined by dictionaries around the world and without splitting science in two and creating his own fields of science.

All science is observational. Of course I cannot go back in time and observe with my own eyes as Lucy (Australopithecus afarensis) walked the earth and watch as each newborn slowly diverged into another species over millions of generation, but I can look at fossil records and DNA to put together a predictable and testable hypothesis, one that has been tested, and tells us how this happened. I can also use that same method to recreate this in the lab with fruit flies, plants and many other species. I can observe how this works. Creationism cannot offer the same.

Ham's own argument would set every murderer and rapist free who did not have an eye witness account, because all the evidence against them is useless because you were not there to see it. Ham missed this glaring obvious misstep in his argument. Nye was easily able to break down Ham's claims about the great flood and Noah's ark, using such great evidence and observations that Ham had no ground left to stand on other than claiming he still had faith such a boat could exist, and then turned to the creationist handbook to discuss "kinds," the very unscientific term used to describe species while avoiding any evolution. Ham offered up a beautiful fairy tale of there being "kinds" on the ark, not species, as we know them today. One has to wonder if creationist like Ham simply makes up creation stories on the fly.

What Ham did get however was close to one million people listening to him proselytize them about the Bible and his faith. This is what most people feared would come from this debate. It was a mistake to allow him this opportunity to ignite a fire under the creationist's movement. This platform offered them legitimacy as a worldview worth debating. Just look around Facebook and Twitter and you, predictably, will find creationists rejoicing in Ham's victory. A fictitious victory yes, but the creationists now feel energized, they truly believe their argument won out and they will now take this fight further. They will use Ham to the fullest to market creation as a viable worldview in courts and in school board meetings around the globe.

Nye walked all over Ham. This was obvious. Ham deflected any question put to him to supply predictable hypotheses from the Bible. Nye also was unafraid to say, "we don't know" and be proud of it. If science didn't have an answer, he was honest and that helped win him the debate. Ham had an answer for everything, the Bible. Nye could not answer how matter came into existence, Ham could. Ham was wrong, and offered no evidence. He simply said God did it and moved on, using nothing more than a claim as evidence. What really lost this whole debate for Ham was the question, "what would change your mind?"

Nye listed all the things that would change his mind, and it all revolved around evidence, and not far-fetched stuff. Honest scientific evidence that would unravel the timeline, and Nye would change his mind. Ham's answer was in short, "nothing." How can you have an honest worldview and claim to care about evidence when nothing can change your mind? This showed that Ham was not interested in the truth at all. He cared about one thing and one thing only, his opinion. Ham shined here as the charlatan that he is.

So the aftermath, was this debate a mistake? Yes. Regardless of how well Nye did, and he did better than many predicted he would, Ham still got airtime. Ham still stood in front of more people than he can normally grab on his own and espoused his
gospel and Ham still ignited his base. There is very little doubt donations will be pouring into Answers in Genesis and the Creation Museum over the coming weeks and months.

[9] Let's not end on that note though. Nye presented a great case. The evidence was on his side and he answered questions with confidence and honesty. He understood the arguments that Ham came prepared with and was able to combat every creation claim put in front of him. For that, Nye deserves to be commended. And maybe, just maybe, a handful of kids around the world were inspired by Nye and his presentation and will look at the world a little differently and question the beliefs that are being jammed down their throats. Maybe a child being raised in a creationist environment can watch this debate and become the next great scientist of their generation.

Evolution, Creation, and the Faux Middle Path
Chelsea Roff | 11-24-2012

http://www.huffingtonpost.com/intent/evolution-creation-and-th_b_1901664.html

[1] Earlier this week, my friend and fellow YogaBrains contributor Derek Beres shared a shocking statistic on my Facebook wall: Over half of Americans do not believe in evolution. According to a recent Gallup Poll, approximately 46 percent of Americans believe in creationism, 32 percent in "theistic evolution" and only 15 percent acknowledge the reality of evolutionary processes as described by Charles Darwin. As this infographic shows, Americans are definitely on the fringes with these beliefs.

[2] Usually, the wealthier a country is (as measured by GDP), the more likely it is that their citizens will have integrated modern scientific findings into their belief systems— and that is likely a result of greater availability and accessibility to high-quality education. But in the United States, despite the fact that we invest billions of dollars in our education system and claim to maintain separation between church and state, hundreds of thousands of people still believe that the universe is only about 10,000 years old (in fact, our cosmic age is closer to 13.7 billion).

[3] Now that may not seem like a problem— after all, everyone is entitled to their own beliefs, right? Who are these arrogant scientists to be claiming that their theory is more true than someone else's? I mean, it is just a theory, after all. There were no human beings there to witness the earth's magnificent beginning. So it's all speculation anyway... It's all just mystery. Right?

Hogwash.

[4] The espousal of this pseudo-middle-path-mentality— this idea that all views are equal, and that creationist and evolutionary perspectives should be taught side by side— is one factor contributing to the epidemic of anti-intellectualism and anti-scientific backlash that Americans are now known for. Susan Jacoby, in an op-ed for the Washington Post, described this trend as "the dumbing of America," and warned that the increasing influence of the religious right on public policy makes for a "toxic brew of anti-rationalism and ignorance [that] hurts U.S. public policy on topics from health care to taxation."

[5] While yogis and quantum-physics-distorting new agers may believe they are immune to this trend of anti-intellectualism, in this article I would like to flesh out one particular instance of how irrationality shows up under the radar— often hidden behind of veil of open-mindedness, tolerance, and the notion that all beliefs about the nature of reality are equally valid. I describe this as "the faux middle path." In the Facebook comment thread that sparked this article, the faux middle path was expressed as "Evolution and creationism are both correct, because we are both evolving and creating. The truth is, we are all one."

[6] I was raised in the Bible belt— where public schools required a moment for prayer every morning and teachers taught about Adam and Eve in science class— so I immediately saw the dangerous implications of suggesting evolution and creation are the same. When evolution and intelligent design are presented as equally viable ways of understanding reality, children learn to conflate faith-based beliefs with evidence-based theory. Creationism implicitly teaches students that it's okay to disregard hundreds of years of scientific investigation. Why? Because spiritual authorities, institutions, and anything someone calls "their faith" cannot be questioned. It is a hierarchical, dogmatic, and implicitly oppressive philosophy that keeps "God" on a pedestal and evidence squandered beneath the boot of spiritual leaders -- whether they be priest, rabbi, or guru.
Creationism also propagates a cartoonish version of reality that places human beings and their creator at the center of everything— and usually it's impossible for people to see this implicit narcissism, because it's hidden under the guise of faith. The belief that humans were placed on earth by a transcendent and supernatural intelligence is not so unlike a belief that the sun and all its planets revolve around the Earth. Creationism presupposes that the Earth, the universe, and even life itself was created with the sole purpose of serving the human species. It is no surprise, then, that humans breed, mutilate, and murder millions of animals in factory farms each year; wreck and ravage entire ecosystems in the rampant hunt for oil; dump millions of plastic containers into the ocean each year— because after all, the Earth was made for us. The planet and all its species is ours to vanquish, because after all... It was created for us. Learning and understanding evolutionary theory is not just about scientific literacy— it is a theory that requires we acknowledge our own vulnerability to the natural forces of the universe, recognize our relationship to the other species on this planet, and approach life from a place of honest inquiry rather than blind faith.

I often hear people dismiss evolutionary theory as mere speculation, oblivious to the multitude of evidence that supports it and the decades of research that have been made possible as a result of Darwin's contributions. Without an understanding of how natural selection works, some of the most significant advances in medicine— from vaccines to antibiotics to treatments for immune diseases like AIDS— would have been impossible. And Darwin's theories are constantly tested and even revised by new research in the biological, geological and astronomical sciences... Because unlike matters of faith, scientific theories must hold up under the lens of scientific scrutiny. It's tempting for people who cherish values like unity and equality to suggest that evolution and creationism are not at odds. But that's an irrational and untenable argument. Intelligent design and evolution are contradictory belief systems. And espousing one view over the other has a major impact on how we interface with the world around us.

Creationism holds that there is an intelligent, supernatural force (sometimes called God, the Universe, the Great Mother, or Universal Consciousness) guides the development of life on Earth. Darwin, on the other hand, showed that the evolution of species on Earth is shaped by natural (meaning measurable) forces like genetic mutations, changes in the environment, and even natural catastrophes. One could make the argument that evolutionary theory does encompass a creator of sorts, but that creator is not supernatural— it is nature itself. Traits are "selected" and passed to future generations based on the fact that the most well-adapted individuals will live long enough to reproduce and pass on their genes. That "theory" does not require faith, it's supported by ark-loads of evidence. To claim that two contradictory perspectives are the same is ludicrous.

My sense is that the 60-plus percent of Americans who doubt evolution do so because they don't understand and/or trust the scientific process as one that is capable of discerning truth about the nature of our world. Instead, we've been taught to trust the "wisdom" upheld by spiritual traditions and authorities, rather than critically assess information based on the evidence before us. If America is to be a player in world politics and academic research in coming decades, there are going to have to be major changes in our education system... not so much teaching children what to think, but how to think. Metacognition. Critical thinking skills. The scientific process. Encouraging curiosity and inquiry, rather than faith and belief.

I have always been a passionate advocate of science, which is not often a popular stance to take when you're writing to an audience that mostly identifies as spiritual, if not outright religious. But in my view, science— by disrupting the hegemonic power structures of corrupt religious authorities and requiring that all claims be subjected to the test of real-world, replicable observation— does in fact hold the key to a "real" middle path. Any worldview that requires belief in an unseeable supernatural power to explain the presence of everything from life to love is, in my view, radical departure to the left or right of reality. The true middle path is in coming to terms with life in an intellectually honest, fully integrated way.

Is Accepting Evolution 'Optional' For Christians?
Karl Giberson | 08.03.2011
http://www.huffingtonpost.com/karl-giberson-phd/evolution-education-optional_b_870971.html
After years in the trenches of the creation-evolution controversy I have come to appreciate the complexity of navigating the foggy world of knowledge claims. This is something that college students start learning to do in their first critical writing course and are supposed master by the time they write a senior thesis. Students begin researching on any topic by Googling and gathering various viewpoints in that way, which they then assemble into arguments. It takes time to learn the limitations of this approach and the importance of understanding that the opinions of someone who does not know what they are talking about are of no value.

A student doing a paper on evolution, for example, needs to learn that the opinion of Michelle Bachmann is of no value, as a recent HuffPost blog argued. Bachmann knows nothing about the topic and, while her opinion would be interesting because of her celebrity status, it would not be informed. In contrast, Jerry Coyne, when he isn't venting about the horrors of religion, writes a lot about evolution and is well-informed, as a leading biologist at a major university.

A student paper examining the pros and cons of evolution versus creation that pitted Bachmann against Coyne should receive an "F" for improper use of sources. On the other hand, Michelle Bachmann has had extraordinary experience with raising children -- five of her own and an amazing 23 foster children. Her insights into foster care and family life would most likely be of great value -- more so than Jerry Coyne's, for example. But in both cases, the consensus of bodies of experts would be a far more reliable starting point. And it would be essential to note whether any individual, regardless of their expertise, was at odds with the scholarly community on the topic of interest.

This kind of critical thinking about sources and expertise is essential in navigating the complexity of our modern scientific world and developing sensible and defensible positions on everything from the age of the earth to the real cost of Medicare. America has an uneasy relationship with experts. Many people don't like the idea of consulting some egghead at a university to get scoop on complex problems, even though that egghead might be the world's leading expert and hold a position endorsed by the National Academy of Sciences.

On Fox News Glenn Beck assaults expertise and education as if they are just different prejudices. He regularly pits his high school diploma against teams of Ivy League doctorates in a most amazing performance as America's leading anti-intellectual. A few hours later on Fox News, Sean Hannity hosts a "great American panel" in which he asks former beauty queens, football coaches, and country singers to comment on complex political and economic questions.

This sort of anti-intellectualism -- the religious and political roots of which are documented in Richard Hofstadter's classic work, *Anti-Intellectualism in American Life* and examined from another perspective in my forthcoming *The Anointed: Evangelical Truth in a Secular Age* -- provides much of the foundation for the assaults being made today on evolution. We are regularly told that we can "make up our own minds" about evolution. The preferred educational strategy being advanced is a "two models" approach where evolution and some version of anti-evolution -- like intelligent design -- are presented and students are encouraged to make up their own minds.

This is a disastrous approach to education— anti-intellectualism disguised as democratic egalitarianism. To expose high school students to fringe perspectives, presented as genuine alternatives, and then encourage them to "choose" the one they like best is to send the message that there is no such thing as knowledge. This approach appeals to those who don't like the consensus of knowledge-generating communities. If global warming is forcing unwanted regulations on the smoke from your factory, then alternative ideas are most welcome. If sound economics says that taxes should go up, then please find some unsound economics that says otherwise. And, if the scientific community says evolution is true, then please find a fringe group to say otherwise. After all, this is America and Americans think for themselves.

In *The Language of Science and Faith* Francis Collins and I cautioned our fellow Christians against holding out hope that there is a real alternative to accepting the consensus of the scientific community, especially as we see no need for Christians to be uneasy about evolution in the first place. We argue that it is significant that the scientific community has consensus on this question and that consensus is a powerful reason to accept the truth of evolution.
This argument, of course, doesn't sit well with the anti-evolutionists who have assaulted it as a bogus "appeal to authority." In a scathing review on the Discovery Institute website blasts The Language of Science and Faith as "full of appeals to authority and attacks upon the character and competence of Darwin-doubting scientists." Our argument is described as a "rhetorical strategy" with the following statements as illustrations:

- "almost all Christian biologists accept evolution."
- "in most large gatherings of scientists you would not find even one person who rejects the theory of evolution: "The scientists at the BioLogos Foundation are unaware of any biologists who have abandoned evolution in the past few years. Not one."
- "we are equally unfamiliar with any premier scientists who reject evolution."
- "Christians should take no comfort in the misplaced hope that the scientific community is gradually abandoning the theory of evolution."
- "the validity of scientific ideas is best addressed by the leading experts."

The author concludes that "Giberson and Collins don't want people to think for themselves on topics like evolution, but to simply capitulate to those whom they deem 'the leading experts.'" And "Dr. Giberson doesn't think that the average person should be allowed to "make up their own minds" on evolution."

This argument is a frontal assault on expertise and how to evaluate it. It is correct that a small percentage of credentialed scholars reject evolution. But this is true in every field. A small percentage of climatologists reject global warming; a few historians think the founding fathers were evangelicals or the holocaust never happened; a few economists still think supply side economics actually works. We do ourselves -- and our poor high school students -- no favors when we juxtapose the conventional wisdom of an entire community of scholars with that of a few fringe voices and invite people to choose which idea they like the best.

What I want for religious believers is what freshman critical writing instructors want for their students— proper appreciation of sources. Invoking the consensus of the scientific opinion is not restricting "thinking" at all. It is encouraging critical thinking and the pursuit of genuine knowledge.

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**The Rise of the Anti-Intellectual Movement**

Erin White | Posted 06.06.2012

http://www.huffingtonpost.com/erin-white/anti-intellectual-movement_b_1396578.html

[1] As we approach the most intense and cut-throat parts of the presidential election season, I become increasingly more concerned about the party that leans furthest to the right. In 1895, H.G. Wells made a bold prediction that in 1,000 years' time the human race would separate into two different species: the intelligent, more attractive, sophisticated class and the opposing dim-witted, short-statured, creature-like working class. While reading the classic novella, *The Time Machine*, I began to notice the overwhelming allusions to the current state of politics in America. While I wouldn't go as far as to say that Wells' prediction is coming to fruition, I can't deny the similarities between the fictional working class and the current Republican voters.

[2] One presidential candidate in particular seems to be leading the way in the division of intellectualism between the human race. Last month Rick Santorum unleashed off-putting and clumsily articulated statements targeting institutions of higher education and their professors. During this particular speaking engagement Santorum chided, "President Obama wants everyone in America to go to college. What a snob." To my surprise he was met with cheers. He went on to explain that liberal college professors are hard at work trying to indoctrinate students. Santorum also states that President Obama's support for Americans in college is solely to help him "remake you in his image." At this point, I think Santorum is confusing indoctrination with educating people with facts.

[3] It's hard for me to understand why Santorum would speak out against Americans obtaining higher levels of education. With more degree-holding citizens, our country would produce more engineers, scientists and intellectuals, which would ultimately
help grow our economy. I find this even more perplexing considering Santorum holds three degrees himself. Mr. Santorum and other far-right leaders are marching the herds of simple-minded Americans towards the new anti-intellectualism America structure. In recent years, The Republican and Tea Parties have been crowded with popular loud mouth, far-right Christians who have difficulty naming newspaper publications or Supreme Court cases, such as former Governor Sarah Palin. Like Palin, Former President Bush Jr., a self-proclaimed 'C' student, is praised by conservative voters for being down-to-earth. Someone you'd want to have a beer with. Someone just like them. Frankly, I don't want a president just like me. I want the kid who kicked my SAT score's ass.

[4] Why would a potential president of the United States want Americans to be less educated? I ask this especially since, according to the Organization for Economic Co-operation and Development, the United States holds an approximately 500 rating in overall education on a 1,000 point scale. Furthermore, I can't help but wonder if Americans would be better equipped to take out a mortgage they could actually afford had they been educated on mortgage underwriting guidelines at a technical school or university. With sinking education levels it is disturbing to me that a potential future president would be opposed to making more Americans eligible for careers in engineering and the sciences, with Jobs that could be more available in our home country instead of overseas. Higher skill sets and education levels could be a gateway to build and sustain clean energy industries and other innovations. This out-right attack on knowledge-seeking and mental growth is something I hope gives every voter pause.

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**Teaching Creationism Is Child Abuse**

**Lawrence Krauss | 02/14/2013**

[http://www.huffingtonpost.com/2013/02/14/lawrence-krauss-physicist-creationism-taliban-child-abuse_n_2687808.html](http://www.huffingtonpost.com/2013/02/14/lawrence-krauss-physicist-creationism-taliban-child-abuse_n_2687808.html)

[1] Lawrence Krauss is an outspoken theoretical physicist in Arizona has made a strongly worded claim about teaching children creationism instead of evolution. In a recent interview he asserted that teaching creationism is akin to a mild form of child abuse and that it mirrors the tactics of the Taliban. The host, asking Krauss to clarify his earlier comments, in which he indicated teaching creationism -- which states, among other things, that the age of the Earth is about 6,000 years old, not 4.55 billion years old -- is a form of child abuse.

[2] “If you think about that, somehow saying that, well, anything goes, we shouldn’t offend religious beliefs by requiring kids to know– to understand reality; that’s child abuse,” Krauss said in a video published by Big Think earlier in February. “And if you think about it, teaching kids– or allowing the notion that the earth is 6,000 years old to be promulgated in schools is like teaching kids that the distance across the United States is 17 feet. That’s how big an error it is.”

[3] At Pakman's prompting, Krauss explained that he's sticking by his earlier comments, despite their potential for controversy. “Sure, it is mild child abuse, but it is [child abuse],” Krauss said. “We need to encourage our children to question freely and try to think for themselves. Anything we do that counters that is unfair to them.”

[4] The scientist went on to draw a connection between teaching creationism in school. “If you’re introducing it as reality, if you’re telling your kids the world is 6,000 years old, and they shouldn’t believe scientists because there is no way humans are related to other animals, and don’t believe any of that stuff you learned in school, or take you kids of out of school because they are learning something, then it is like the Taliban at some level, which is an extreme form of child abuse,” Krauss said. “The Taliban doesn’t want girls to be educated because if they do they’ll understand the myths that they are learning are crap.”

[5] Recently, some scientists, including Bill Nye, have been ramping up their criticisms of creationism. In September, Nye told the Associated Press: "The Earth is not 6,000 or 10,000 years old. It's not. And if that conflicts with your beliefs, I strongly feel you should question your beliefs." Nye was later joined by an unexpected ally in the creationism debate: Pat Robertson, a prominent American evangelical. In November, Robertson said Christians should not try to "cover up" evidence that proves the age of the Earth is not a several thousand years old. "If you fight science," Robertson said, "you're going to lose your children, and I believe in telling it the way it was."