

Darwin's Theory of Evolution Roiled U.S. on Eve of Civil War

February 5, 2017



[View Images](#)

Even today, evolution is questioned. At the Creation Museum in Petersburg, Kentucky, Adam and Eve share the Garden of Eden with a dinosaur.

Photograph by Richard Barnes, National Geographic

[Charles Darwin's *On the Origin of Species*](#) sent shock waves around the world when it was published in 1859. The suggestion that all human beings, of whatever race or color, share a common ancestry, had an especially seismic impact on a country teetering on the brink of civil war, as [Randall Fuller](#) shows in [*The Book That Changed America: How Darwin's Theory of Evolution Ignited a Nation*](#).

When *National Geographic* caught up with Fuller by phone in Tulsa, Oklahoma, he explained why both abolitionists and racist ideologues found something to like in the theory of evolution, how [P.T. Barnum](#) exploited the theory's notoriety to mount a questionable exhibit, and how Darwin changed Henry David Thoreau's life.

Courtesy Penguin Randomhouse

Today, Darwin's theory of evolution is part of the cultural wallpaper. But it caused uproar in America when it appeared, didn't it? Take us back in time.



When Darwin's book arrived on these shores in 1859, the U.S. was on the brink of civil war. John Brown's botched raid on Harpers Ferry had just occurred, and that had ratcheted up tensions over slavery. There is language in newspapers of the time, both in the North and South, that we are two

separate peoples, in a struggle to survive.

In drops this book that, among other things, suggests that the state of nature is one of constant struggle, combat, war, and violence. That's one of the reasons the book was almost immediately embraced by a number of intellectuals, who thought Darwin was describing the world they lived in.

The other issue, of course, is religion. In the U.S., there had long been an ideology that the nation was one divinely chosen by God to lead the world, primarily through the example of democracy. Darwin's book eliminated the role of God, the need for that Biblical narrative of God creating humans in his own image.

You Might Also Like

You begin the book with a dinner party at the home of abolitionist Franklin Sanborn, where the first copy of *On the Origin of Species* brought to America was discussed. Be our fly on the wall on that evening.

It is an extremely cold, New England winter evening. Editorials in the North and South are looking at the new year with much trepidation, when four very interesting, but dissimilar, intellectuals gather at a house in Concord, Massachusetts, the home of transcendentalism in the U.S. They discuss two subjects. One is slavery and abolition. The other is this book, *Origin of Species*, which has been carried from Boston to Concord by Charles Loring Brace.

Brace is a child welfare reformer who's now best known for his creation of what were called "orphan trains," which took the orphans of recent European migrants and relocated them in the West. He was also what they called a "red-hot abolitionist." [Franklin Sanborn](#), then a young man, was an even more red-hot abolitionist, one of the so-called *Secret Six*, who had helped fund the John Brown raid on Harpers Ferry. [Bronson Alcott](#), the oldest person at the meeting was a great friend of Ralph Waldo Emerson, the

transcendental philosopher, and the father of [Louisa May Alcott](#). Last, but not least, was [Henry David Thoreau](#), the transcendentalist author, who was beginning a kind of second career as a scientist.

Charles Darwin didn't discuss humans in *On the Origin of Species* but readers applied his theories to people even so.

Photograph by Time Life Pictures, Timepix/The LIFE Picture Collection/Getty

You write, “anti-slavery activists eagerly embraced *On the Origin of Species* because they believed the book advanced the cause of abolition.” Unpick the

connections for us.

At first it doesn't seem to make a lot of sense because Darwin's book famously has nothing to say about humans. He doesn't speak about humans directly until [The Descent of Man](#), which comes about a decade later. But Darwin argues that, if we go far enough in time, we would see that all plants and animals sprang from the same primeval source. If you are an American, concerned about the discussion of slavery, an argument that says black people and white people actually share a common ancestor, and are intimately connected, like brothers and sisters, rather than separate varieties or species, has a powerful effect.

A number of prominent American scientists at the time argued that God had created black people, brown skinned and white people separately, and each of them were different, had different capacities, and there was a hierarchy. Some went so far as to suggest that black people were a different species, and that they were not only different, but inferior. These scientists were praised in the South and provided the perfect rationalization for slavery. Darwin's argument that all living things shared a common ancestor provided the abolitionists with a great rebuttal of the dominant, American science of the time.

One of the writers most deeply affected by the publication of Darwin's epochal work was Henry David Thoreau. Describe its effect on him.

One of the prime doctrines of transcendentalism is that God, or divinity, permeates every aspect of nature. So, an argument that says nature consists purely of physical processes not guided or directed by divinity, refutes a central tenant of transcendentalism. We know Thoreau as the inhabitant on Walden Pond, the hermit and the civilly disobedient social critic, but what is not known so much is Thoreau, the proto-scientist. About ten years before Darwin's book came out, Thoreau made this shift away from transcendental philosophy toward the observation of nature. He went outside for hours every day with a journal and yardstick, measured things and chronicled almost every aspect of nature: when flowers and trees blossomed, what the weather patterns were like.

Darwin developed his theory after studying animals like these tortoises on the Galapagos Islands.

Illustration by Universal History Archive, Getty

What Darwin enables Thoreau to do is fully renounce that transcendental belief that God is in nature and to see something equally wondrous and marvelous: the incredible, almost profligate creativity of nature. He says toward the end of his life that what Darwin's theory enables him to see is that nature is constant, new creation. Rather than a God that creates nature, Thoreau now sees nature itself as this amazing creative force.

The foremost critic of Darwinism in America was the Swiss-born thinker [Louis Agassiz](#). What was his beef with Darwin?

Agassiz is the single most important proponent of a theory known as "special creation," which is the idea that once upon a time in the distant past, God created every species as they appeared in his mind, in specific regions of the world, immutably, so that they didn't change. If he created a monarch butterfly, in the U.S., that butterfly would be the same from generation to generation, and on and on with all other species.

Agassiz was trained in Paris and was teaching in Switzerland, when he was

invited by Harvard to come and give a series of lectures in the 1840s. And he basically never left. It was the first time in his life that he encountered black people, African-Americans, and he had an immediate visceral reaction. This shaped his application of special creationism to humans, in a theory that came to be known as polygenesis. He argues that white people were created in a particular zone in Europe, black people were created in Africa, and Asian people were created in the Asian part of the world. Saying black people and white people were created in different places, and have different capacities, was of course a great argument for slavery. Darwin, by contrast, says that whether they are black or yellow or white, all human beings derive from the same ancestor.

In Dayton, Tennessee, anti-evolution books are for sale in the midst of the infamous Scopes Trial, when John T. Scopes was put on trial for teaching evolution.

Photograph by Hulton-Deutsch Collection, Corbis/Getty

Louisa May Alcott, author of *Little Women*, flits in and out of your book. In what ways did Darwin influence her—and another famous New England woman, Emily Dickinson?

Dickinson has a wonderful poem in which she says, “nature is a haunted house.” What I think she means is that, once upon a time, at least intellectually, God inhabited nature and now God is out of nature, and is haunted by this former presence. For Dickinson, who always had difficulty feeling the spiritual fervor that her family and community felt, I think Darwin helped her understand and accept the idea that [God might be a fiction](#). She says at one point, “I understand Darwin did away with the Savior.”

Louisa May Alcott is a larger presence in my book as she is in Concord when Henry David Thoreau and her father, Bronson Alcott, are discussing Darwin throughout the year of 1860. She was a committed abolitionist and one of her first stories, in 1860, is about a love affair between a black man and a white woman. Not surprisingly, that story was not published anywhere in America

until the Civil War is almost over. In 1860, it was just too incendiary to describe a happily married and [miscegenistic couple](#).

One of the more surprising figures to enter the Darwin fray was impresario P.T. Barnum. Tell us about the [“What Is It?” exhibit](#).

Like any great cultural entrepreneur, Barnum had his finger on the pulse of his native country; and there are several currents he is deeply aware of. One is that the first gorilla pelts and bones come to the U.S. almost in the same month that Darwin’s book arrives. The issue of the primate origins of people that Darwin hints at are also very much on Barnum’s mind. So he hires a young African American man, who may or may not have been disabled with microcephaly, dresses him up in a woolly suit, puts him in a cage and concocts this crazy story that he had been found in Africa—and that he represents a missing link between gorillas and human beings.

Race continues to be an intractable problem in America. How great a role has social Darwinism played?

Social Darwinism is an argument that focuses primarily upon a term that Darwin himself didn’t coin but eventually used, “the survival of the fittest.” It argues that those who are on the top, the wealthiest and best positioned socially, are there because they are the fittest, the best adapted to succeed. This idea came up during [the Gilded Age](#) and was very quickly adopted by racist ideologues who wanted to imagine African Americans as inferior or substandard compared to whites. So, there’s this horrible, ironic reversal where Darwin is at first embraced by abolitionists but, within 10 years or so, has been appropriated to argue that blacks are inferior.

Today, you only hear the term social Darwinism with a very negative inflection. However, like all ideas, over time they become absorbed or, to quote you, become part of the cultural wallpaper. So I would hazard the guess that the idea the inherent superiority of some races is still, unfortunately, with us [today](#).

A 2014 study showed that only 19 percent of Americans believe humans evolved from a more primitive form of life without help of a celestial power. Is Darwin on the retreat in America today?

Great question! Though I tend to think that those figures you've mentioned are, hopefully, a last gasp of denial. It's certainly true that there's an increasing resistance to Darwin's theory. But that exists simultaneously with, almost every month, new data showing the validity and overall soundness of Darwin's theory. The question is, how long can one deny a growing empirical body of facts?

I grew up in public school in the late 1970s in Missouri, and natural selection was taught as an accepted, and completely settled, scientific question. There have been periods between the 1920s and 2014 where the opposite has obtained. But that pendulum will always swing back again. Just recently [Pope Francis](#) reaffirmed the Catholic Church's conviction that evolutionary theory is valid.

This interview was edited for length and clarity.

Simon Worrall curates [Book Talk](#). Follow him on [Twitter](#) or at simonworrallauthor.com.