

SAY IT AIN'T SO
AMERICA'S CONTINUED REJECTION OF EVOLUTION¹

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In press, *Applied Developmental Science*, a journal published by Lawrence Erlbaum Associates, Inc., <http://www.erlbaum.com/>

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“Say it ain’t so, Joe” is the saddest phrase in the long drama that is America’s national pastime. This enduring lament, uttered by a small boy tugging on the sleeve of his hero, the great Shoeless Joe Jackson, captured the anguish of fans of the 1919 Chicago White Sox. Shoeless Joe was coming out of a Chicago courthouse in 1920, having testified of his role in accepting a bribe to throw the World Series. A great darkness had settled on America’s pastime as fans across the country wished that somehow, it just wasn’t so, that the sun would rise on a new morning, and it would turn out that one of the greatest teams in baseball was not populated by crooks.

“Say it ain’t so” has also been the response of ordinary Americans to Darwin’s theory of evolution, which has been in America almost as long as baseball. Just as we can’t accept that the heroes of our national pastime are crooks, we can’t accept that we descended from a lower order of animals, that we are related to the chimpanzee and the baboon, that we were not specially created by God. Surely we are not the product of random chance stirring in the mud to make life, cavorting in the forest to make intelligence, dropping from the trees to walk on two legs. Say it ain’t so.

America has never made peace with Darwin’s theory of evolution, now well over a century old. Outlawed in many states around the time of the infamous Scopes Monkey Trial, soft-pedaled in biology textbooks for decades, challenged in court during the 1980s in Arkansas and Louisiana, Darwin’s controversial theory is still under assault; its current attacker is called Intelligent Design.

“Under assault” is a strong but appropriate metaphor for this conflict. America’s ongoing confrontation with Darwinism is nothing less than a culture war, fought on many

fronts, with many weapons, with an odd assortment of allies. At stake, if the heated rhetoric is to be believed, is America's future.

Shall we continue, asks one side, to follow Darwin and his materialistic philosophy down that long decadent road to Gomorrah, and allow America to descend into moral anarchy? Or shall we reject Darwin, recover our glorious Christian past, restore the founding values that have made this country great, and once again place America in the prosperous light of God's favor?

Or, asks the other side, shall we reject science in favor of superstition? Shall we halt the clock of progress and wander back into a blinkered past, leaving the rest of the world to move forward without us? Shall we embrace false stories and teach them to our children simply because we like them? Shall we abandon scientific truth to the rest of the world and content ourselves with a medieval worldview?

The above paragraphs, despite their rhetorical extremes, do not caricature America's controversy over evolution.

How in the world did a debate about a biological theory acquire such an apocalyptic tone? How did Darwin's theory become a referendum on America's morality trajectory?

Evolution versus Intelligent Design

Science in the United States, while revered for its contributions to our modern way of life and our understanding of the world, is viewed by many Americans with ambivalence. Religious conservatives, firmly planted within a tradition of attributing natural phenomena to God and reading God's purposes in nature, are uneasy about the *naturalism* of "natural science." This naturalism, which they call *materialism*, is and

always has been corrosive of traditional religious beliefs. In its extreme form naturalism can be cast in an aggressively atheistic mode and has often been used in this way by those eager to discredit religion. Conservative religious opposition to a purely naturalistic science that rules out the supernatural has been a perennial feature of the cultural response to scientific progress. In America this concern has been manifest in a persistent opposition to evolution in particular, but also cosmology, geology, and even psychology. The debate over intelligent design dominating today's headlines is simply the current manifestation of this long-standing controversy and is energized by the same concerns as its predecessors.

20th century America witnessed several celebrated legal confrontations aimed at weakening the teaching of evolution in public schools. The Scopes Monkey Trial in 1925 in Dayton, Tennessee, was the most famous of these and has taken up an enduring, if misleading, residence in our culture in the form of the play and movie *Inherit the Wind*.

The Scopes Trial followed expansions in public education that saw more students staying in school past the 8th grade and thus encountering science at the high school level. This science included evolution, which many parents, especially in the conservative South, found offensive. As a result Tennessee passed a law sponsored by John Washington Butler, a farmer, making it illegal to teach that "man has descended from a lower order of animals." The rest, as they say, is history, or in this case Hollywood.

Hollywood's version of the Scopes Monkey Trial is deeply memorable and seared into America's national psyche, largely because the play and the movie introduced many powerful fictional elements. Prominent characters, like the vindictive Rev. Brown, are created out of nothing; events, like Scopes' arrest in front of a biology classroom or his

incarceration in the local jail, are created out of nothing. But the most serious problem with the Hollywood story is, alas, something it shares with both many of the popular histories of the trial, and the news accounts of recent controversies—a complete absence of social context. Scopes' great confrontation in Dayton, and its successors in Arkansas, Louisiana, and more recently in Kansas and Pennsylvania, were not, in the minds of their protagonists, about a scientific theory. William Jennings Bryan was a great and nationally beloved politician, of the sort we no longer see in Washington. What did he care about the details of a scientific theory? Why would he launch himself into a controversy for which he was woefully unprepared? Likewise, why did those parents in Dover, Pennsylvania get themselves elected to the local school board so they could promote Intelligent Design?

Bryan campaigned against evolution, not as a scientific theory, but as a dangerous and misguided social program. Bryan was convinced that evolution provided a rationale for disastrous social mischief, calling it a “merciless law by which the strong crowd out and kill off the weak.” This survival-of-the-fittest mentality had led Germany into World War I and was eroding faith among educated Americans, a charge that echoed across the 20th century and is still being heard.

Bryan's nemesis in the Scopes Trial, the infamous agnostic Clarence Darrow, also came to Dayton with troubling views of evolution. Shortly before he signed on with the ACLU to defend Scopes, Darrow argued the controversial Leopold and Loeb case, which made national headlines. Americans read daily of Darrow's spirited defense of two wealthy and privileged Chicago teenagers who, apparently for fun, had murdered 14-year-old Bobby Franks with a chisel. The disturbing story had the nation clamoring for

the death penalty. Darrow rescued the boys from death row, mitigating the horror of their crime with an eloquent argument based partly on Darwin's theory of evolution. Human beings, said Darrow, can never fully escape their animal natures.

The social baggage that both Bryan and Darrow associated with evolution was not just populist confusion, the sort of error typically committed by the scientifically uninformed. It was, quite literally, *textbook* Darwinism and could be found in, for example, in the bestselling biology text of the day, Hunter's *A Civic Biology*. Hunter's text, from which John Scopes may or may not have taught evolution to teenagers in Dayton, noted that races, including the human race, were better served if their weaker members were prevented from breeding and producing inferior offspring. Defective humans should be forcibly "sterilized" and schoolchildren were encouraged to select eugenically appropriate "healthy mates" (Hunter, 1914, pp. 261-263). America's flirtation with eugenics, fortunately short-lived, led to widespread forced sterilization of "inferior" Americans. Between 1900 and 1935, more than 35,000 "defective" Americans were sterilized. Say it ain't so.

When placed in its social context, the controversy in Dayton was no more an argument about the merits of a biological theory than the controversy over nuclear weapons is an argument about a physics theory. Right or wrong, scientific theories often come laden with social baggage. Only in ivory towers where detached academics ply their trade is scientific knowledge ever "pure" and unadulterated. In the real world, where people vote, pay taxes, attend church, and send their children to public schools, scientific ideas are embedded in social agendas that dominate the response to those ideas. Whether Bryan and Darrow, and the voters in Dover, Pennsylvania, understood evolution correctly

is not the point. Evolution still carries a lot of social baggage and it is this baggage, not the explanatory power of natural selection, that rallies America around Intelligent Design's assault on evolution.

The fallout from Scopes was complex. Both sides claimed victory but nothing was resolved. Bryan and his followers were held up to ridicule in much of the country, but other states passed anti-evolution laws and textbook publishers downplayed evolution to be on the safe side.

This changed in 1959 when the Russian launch of Sputnik startled America's scientific community, convincing them that American science needed reform. The result was a curriculum in which evolution dominated biology, consistent with the role it had come to play in that discipline. Once again American teenagers were learning evolution in high school and their parents were getting alarmed. Descended from monkeys? Say it ain't so....

The new curriculum spawned the movement that came to be known as Scientific Creationism. Led by a winsome Southern Baptist named Henry Morris, the creationists captured the religious hearts and troubled minds of grass roots America with their simple message that evolution and its materialistic baggage did not need to be embraced. It was a flawed theory promoted, not because the evidence supported it, but because of its resonance with atheistic naturalism. A few celebrated defections from the evolutionary camp, and internal controversies about the theory, were spun into a mythology that evolutionists were eagerly and everywhere jumping the Darwinian ship. Populist arguments that evolution was incompatible with Christianity moved millions of evangelicals firmly into the creationist camp. Public debates in which polished

creationists defeated unprepared evolutionists added grist to the mill. Polls revealed that most Americans were creationists and wanted the theory taught in their public schools.

The goals were modest. Rather than outlawing evolution, the demand was simply for “equal time.” In 1982 in Little Rock, Arkansas, a formal legal challenge was launched, mandating an “American-sounding” equal time high school pedagogy, requiring that creationism be taught alongside evolution. Dubbed “Scopes II” the Arkansas encounter captured headlines and generated a substantial literature. Ultimately, however, the Judge ruled that there was no basis for teaching creationism alongside evolution in Arkansas’ public schools. Creationism, wrote Judge Overton, “fails to follow the canons defining scientific theory.”²

Like Bryan a half century earlier, the influential Morris had little interest in evolutionary theory *per se*. His concern was the social and religious implications of a theory he was convinced led to immorality and nihilism.

Legal challenges to the teaching of evolution worked their way to America’s Supreme Court where, presumably once and for all, creationism was declared unscientific, religious, and inappropriate for America’s high school biology classes.

Throughout these challenges a rhetorically charged literature emerged from both sides. Cartoons appeared, heaping ridicule on the opponents of evolution, portraying them as ignorant hicks, drawing them on charts as “missing links”; spokespersons for science desecrated the illiteracy and backwardness of the creationists; Isaac Asimov wrote that “creationists are stupid, lying people,” (Asimov, 1984) and insulted them as “cavemen” on the back cover of a popular book on evolution (Dawkins, 1986). Richard Dawkins, who holds the “Chair for the Public Understanding of Science” at Oxford

University, charged that the opponents of evolution were “stupid, wicked, or insane” (Dawkins, 1989). Creationists countered that evolution was destroying belief in God; Morris wrote a full-length book arguing evolution was Satan’s strategy to destroy faith in God (Morris, 1989). And, while science won all the court battles and the allegiance of the academy, it lost the hearts and minds of millions of Americans whose interest in science did not extend much beyond a concern that it not undermine their faith in God.

The same grass-roots opposition to evolution that carried Bryan to Dayton to prosecute John Scopes endures undiminished into the 21st century. This anti-science populism gave birth to the Intelligent Design (ID) movement just over a decade ago.

Creationism evolves into Intelligent Design

The defeats suffered by creationism in the years since Scopes culminated in the Supreme Court’s 1987 rejection of a Louisiana law that forbid the teaching of evolution unless creation science was also taught. The court ruled, simply and definitively, that creationism could not be taught in America’s public schools. Evolution had apparently won, and creationism retreated to a substantial but largely fundamentalist comfort zone, where it continues to flourish, out of sight of mainstream science.

Conservative intellectuals found this disturbing. If evolution won the academy, they reasoned, its pernicious naturalism would soon pervade the intellectual foundations of all aspects of American life. No one was more disturbed about all this than the brilliant, colorful, theologically conservative Berkeley law professor Phillip Johnson. If creationism was too religious for America’s public schools, as the misguided and liberal courts had ruled, he would provide an anti-evolutionary alternative that was not so obviously religious. He would give the courts, which he understood very well, having

clerked for Earl Warren, something they could not summarily reject as a breach of the battered-but still-standing wall between church and state.

Thus was born the intelligent design movement, or ID.² Conceived as a nominally secular assault on evolution and the naturalism of science, ID has evolved into a well-funded and politically savvy assortment of lawyers, philanthropists, scientists, polemicists, philosophers, and bandwagon jumpers. With considerable financial support from the Seattle based Discovery Institute, ID is challenging high school science teaching, working through local school boards, instead of the courts. The top down approach of the creationists had required taking on a relatively sophisticated class of educators, something the creationists were simply not prepared to do. The new ID strategy was much simpler—fight a lot of small battles rather than a large war. A relatively modest investment could empower a campaign to elect sympathetic members to a local school board, who would then pass a resolution undermining the teaching of evolution. And, by crafting these resolutions to sound both benign and secular, they often passed with minimal fanfare.

Following Johnson's don't-sound-religious-in-public strategy, the ID movement, with secular sounding rhetoric, asks only that high school students be alerted, for example, to the "problems" with evolutionary theory and that "alternative explanations" be provided. What could be more reasonable?

The "alternative explanations" turn out to be updated creationist claims that evolution cannot explain much of the natural world. Attention is called to things in nature so complex an "intelligence" must be invoked to explain them. ID's leading scientist, Michael Behe, testified in the Dover trial as an expert witness, arguing that there were

many tightly-knit, multi-part, *irreducibly complex* things in nature that simply could not have been produced by Darwin's slow incremental accumulation of imperceptible changes. Behe is right, of course, that there are many such complex things in nature that evolution cannot presently explain. The key question for science, however, is whether we must suppose that evolution will be *forever* unable to explain them. When pressed on how they would be "explained" by Intelligent Design, Behe said they could be understood as the result of "intelligent activity" (Behe, 2005).

The proponents of ID, in public, maintain a careful agnosticism on the particulars of the "intelligence" that is doing the designing. Virtually all ID proponents, however, are conservative Christians and, when they speak to religious audiences, the identity of this unknown intelligence becomes crystal clear. In fact, in such friendly settings, the ID arguments turn into an apologetic for the truth of biblical Christianity (Dembski & Richards, 2001). Once again, the "baggage" dwarfs the science.

The strategy of ID is to portray the conflict between their position and evolution as being between rival scientific theories, something that is not uncommon. There are, in fact, poorly understood natural phenomena that have rival scientific hypotheses competing as explanations. Astronomy, for example, has long tolerated competing explanations for dark matter, or the origin of the moon, or the peculiar tilt of Uranus. In such cases textbooks present multiple explanations, not so students can make up their own minds about which is correct, but because the different explanations have substantial support within the scientific community and science *does not yet have a definitive understanding*.

ID would like their explanation placed alongside evolution as a viable alternative and, in the name of fair play and open-mindedness, taught to America's high school students. This sounds generous and appeals, like the "equal time" argument advanced at the Arkansas trial, to America's sense of fair play. But it is a false claim. Unlike the alternative explanations for the origin of the moon, there are no alternatives to evolution. One looks in vain in the scientific literature for alternatives to evolution. To be sure, there are many controversies, but they are all located *within* evolution, and are about the details of how evolution works. There simply is no scientific theory of Intelligent Design within science. But there is also no theory of Intelligent Design outside science either.

The strong claim that there simply is no theory of Intelligent Design can be verified by evaluating the ideas being promoted by the various people—including the scientists, of course—in the rank and file of the ID movement. Their movement, they claim, is so large that it must be taken seriously. But, in order to make their movement seem large, they have welcomed such a diversity of viewpoints that it is a misnomer to even label ID as a single "movement." ID proponents, for example, don't agree on whether the earth is five billion or ten thousand years old. What shall we teach on that score? Were dinosaurs contemporary with humans? Some say yes; some say no. Many ID proponents believe that fossil strata were laid down by Noah's flood and that Adam and Eve were the first humans, living in the Middle East a few thousand years ago. Others reject the historicity of these biblical stories. An examination of the ID literature, almost all of which is at a popular level and published by small religious presses, reveals that ID is little more than a collection of challenges to evolutionary theory, not all that different from the creationism from which it descended.

ID fares much better, however, on a philosophical front, when it raises concern about *scientific naturalism*, and it is here we find the “baggage” that makes ID, despite the thinness of its science, so attractive to so many Americans.

The Bogeyman of Naturalism

Science, as understood by most of its practitioners, is no more incompatible with religion than plumbing. Science does not oxymoronically seek *supernatural* explanations for *natural* phenomena, any more than plumbers invoke the supernatural to explain leaky faucets or running toilets. Many scientists—and presumably plumbers as well—have no objection to supernatural explanations outside of science (and plumbing). But science *qua science* is, and always has been, *natural* science. The problem, however, as we have noted repeatedly, is that science invariably comes with baggage.

The leading spokespersons for science—Richard Dawkins, Stephen Hawking, Edward O. Wilson, Carl Sagan, Stephen Jay Gould, and Steven Weinberg, to name the six who are most responsible for current cultural perceptions of science—paint a rather different picture of science than the innocent search for natural explanations for natural phenomena. They all argue that there is nothing beyond the natural phenomena studied by science. If we define and measure science—and knowledge in general—by the standards of its leading public figures, it certainly appears that science validates an all-encompassing naturalism that leaves no room for the religions so near the hearts of most Americans. In fact, all six of the above scientists are actually hostile to traditional religion and use science, especially evolution, to argue against it.

ID draws its considerable public support from this very concern. If you are convinced, perhaps by reading the many books of the scientists mentioned in the

preceding paragraph, that science is incompatible with your religion, you are faced with a choice: If your primary loyalty, in concert with most Americans, is to your religion, then you must reject science, or at least accept that there is something deeply wrong with it. ID offers an eloquent explanation of exactly what that might be, with the added bonus of an alternative science to replace the flawed one.

ID gets considerable mileage out of attacking the naturalism of the authors mentioned above. The index to Johnson's *Reason in the Balance: The Case Against Naturalism in Science, Law, and Education*, for example, has thirteen entries for Gould, ten for Dawkins, nine for Hawking, seven for Weinberg, and six for Sagan (Johnson, 1995). The argument, used so effectively by Johnson and others, goes like this: Here are the leading thinkers from the scientific community. They are hostile to religion and believe that science has rendered belief in God irrelevant. Their central theory is evolution, which they fanatically support, despite its many flaws, because without it they would have to acknowledge the reality that God created the world and holds his creatures accountable. Evolution derives from the assumption of atheistic, materialistic ideology, not an objective effort to understand the natural world. "Darwinism is not really based on empirical evidence," writes Johnson. "Its true basis is in philosophy, and specifically in the metaphysics of naturalism...Naturalism does not have an answer for the ultimate question of why there is something instead of nothing" (Johnson, 1995, p. 16).

Johnson and his foot soldiers in the ID movement have challenged the big guns of science in what amounts to a culture war that goes way beyond any scientific controversy over evolution. Lost in this culture war is the fact that the majority of scientists are not hostile to religion and many of them are actually quite religious.

So, while Intelligent Design might be poor science, its supporters are entirely justified in calling attention to those who would enlarge the naturalism of science into an all-encompassing worldview. The philosophical debate over ID starts with a false dichotomy embraced by protagonists on both sides: the world must be explained by either God or the natural causes of science, but they are mutually exclusive. ID chooses God, concluding that there is something faulty in science that must be changed. The leading public voices for science choose natural causes, concluding that there is no room for God.

America is a deeply religious nation, with a long history of near universal religiosity. When confronted with scientific theories that appear to undermine their religion, their response has always been the same: Say it ain't so.

Footnote

²See Judge William R. Overton's Memorandum Opinion, *Rev. Bill McLean vs. the Arkansas Board of Education*, January 5, 1982, quoted in Gilkey, (1985, 1998, pp. 268-95).

³For an aggressively critical history of Intelligent Design that lays bare the intensity of the reactions see Forrest and Gross (2004). For a less polemical view see Chapters 9 and 10 of Giberson and Yerxa (2004).

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