Scientists Confront CREATIONISM

Intelligent Design and Beyond

EDITED BY

Andrew J. Petto and

Laurie R. Godfrey

John Cole, "Wielding the Wedge: Keeping Anti-Evolutionism Alive"



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Wielding the Wedge: Keeping Anti-Evolutionism Alive

John R. Cole

HARDLY HAD THE THEORY OF evolution been posed than nineteenth-century scientists and theologians began the first phase of anti-evolutionism and resistance to Darwin's research. By the turn of the twentieth century, supporting scientific evidence mounted, opposition faded, and evolution became commonplace in popular textbooks. After World War I, Americans took the lead in the struggle against evolution. There were a number of reasons for this, not the least of which was the scholarly elite's relentless equation of evolution with the "doctrine of progress" and other concepts associated with "modernism." The notion that "progress" and "modernism" would be an improving force for mankind seemed to fly in the face of the recent war and ensuing economic distress. Even though the United States had prospered after the war, the European devastation was seared in the public mind. Furthermore, in the early twentieth century, the United States lacked centralized political, religious, and educational systems, a situation that left decisions on curriculum under the power of local citizenry and provided an incentive for activism on the part of anti-evolutionists. By the time of the notorious Scopes trial in 1925, laws banning the teaching of evolution in public schools had emerged.

The Scopes trial in Dayton, Tennessee, was the first large confrontation between evolutionists and anti-evolutionists. Defending John Scopes's right to teach evolution were lawyers Clarence Darrow and William Dudley Malone. Darrow was something of a professional agnostic and, like Malone, a skilled orator. On the side of the anti-evolutionists stood special prosecutor William Jennings Bryan—three-time Democratic presidential nominee, former secretary of state, and renowned orator in the cause of Christian fundamentalism. Bryan won the case. The issue, the judge insisted, was simply whether Scopes had taught the subject of evolution, and Scopes had conceded that much. Scopes was convicted and duly fined \$100 for violating a new law forbidding the teaching of evolution. (The sentence was later overturned on a technicality by the state appellate court because the fine had been set by the judge, rather than by the jury as the law required.)

But the intervention of Bryan transformed a civil-liberties test case into an explosive forensic contest and revival meeting. Bryan set the scene for the trial in a speech before Seventh-day Adventists by proclaiming, "All the ills from which America suffers can be traced back to the teachings of evolution," and by portraying the trial as a battle for the survival of evolution or Christianity. Evolutionists remember the trial as a big circus one in which Bryan was led into illogical, untenable corners time after time, and one in which he was humiliated and mocked in the press around the world. Evolution emerged victorious if the debate was to be judged forensically rather than legally, and Bryan emerged a rather tarnished defender of the faith. Yet, in effect, the trial did not challenge the Tennessee law prohibiting the teaching of evolution, and evolution remained effectively excluded from American public schools and textbooks until at least the 1960s (Hofstadter 1955, 1963; Ginger 1958; Cole 1983).

With the post-Sputnik upsurge of science education (including the teaching of evolution) during the second half of the

twentieth century came a new wave of anti-evolutionism. In response to more ardently pro-evolution texts, the dominant strategy among anti-evolutionists was to promote the idea that alternatives should be given equal time whenever evolution was taught. Those "alternatives" included "scientific creationism," basically a renewed engagement for the "Flood geology" espoused by George McCready Price (1926). Even Price's work was little more than an echoing of the Seventh-day Adventist version of Ellen White's earlier anti-evolutionism (Nelkin 1977). Whitcomb and Morris's 1961 book The Genesis Flood was the basic text of the new "scientific creationism" movement, although there had been a steady trickle of such books throughout the century. It would take nearly three decades for the U.S. Supreme Court to reject the "equal time" arguments. In 1987, it heard an appeal of a Louisiana law demanding equal time for creationism in the curriculum. In its decision on Edwards v. Aguillard, the Court ruled against "equal time" for creationism, and a large number of evolutionists breathed sighs of relief, believing that they could finally drop the struggle.

Creationists, however, were undeterred. The court decision neither required evolution education nor banned anti-evolutionism. Even the majority opinion left room for "valid" challenges to evolution in school curricula. The minority opinion, written by Chief Justice William Rehnquist, was scathing in dissent, fully defending the Louisiana law's content and intent (Edwards v. Aguillard 1987). Critics found it startlingly ignorant of science and hostile to church-state separation. Many anti-evolutionists, in contrast, viewed even the majority opinion as friendly—an open invitation for someone to find an intellectual and legal strategy that might be sufficiently "valid" to qualify for equal time.

Anti-Evolutionism Evolves

With Rehnquist's opinion as the guiding principle, a much more subtle and sophisticated intellectual strategy emerged in the mid-1990s. Nicknamed "The Wedge" (Lankford 1999; Johnson

2000, 2002; Forrest 2001; Forrest and Gross 2003) by its designers, it sought to call into question the underpinnings of all biology. The acknowledged leader of this movement is recently retired University of California (Berkeley) law professor Phillip Johnson. Johnson's version of anti-evolutionism is known as "intelligent clesign." According to ID, the universe shows a type of complexity that is impossible for natural processes to produce and that therefore requires an "Intelligent Designer." (See articles in this volume by Pennock, Elsberry, Dorit, and Stenger for discussions of various aspects of ID theory and complexity in nature.) Johnson's "Wedge" strategy is simple, intended to appeal to a broad audience—far broader than that for the ID movement from which it sprang. The strategy is built around a metaphor: If one's road is blocked by a log too heavy to be moved, Johnson writes, one need only find the cracks in the log and divide it methodically using a hammer and a wedge. "The log in this metaphor is the ruling philosophy of modern culture, a philosophy called naturalism or simply modernism" (Johnson 2000, 13).

Wedge advocates laid out a pragmatic program to methodically destroy the culture of evolution, which can be outlined thus:

GOVERNING GOALS

- To defeat scientific materialism and its destructive moral, cultural and political legacies.
- To replace materialistic explanations with the theistic understanding that nature and hurnan beings are created by God.

FIVE YEAR GOALS

- To see intelligent design theory as an accepted alternative in the sciences and scientific research being done from the perspective of design theory.
- To see the beginning of the influence of design theory in spheres other than natural science.
- To see major new debates in education, life issues, legal and personal responsibility pushed to the front of the national agenda.

TWENTY YEAR GOALS

- To see intelligent design theory as the dominant perspective in science.
- To see design theory application in specific fields, including molecular

biology, biochemistry, paleontology, physics and cosmology in the natural sciences, psychology, ethics, politics, theology and philosophy in the humanities; to see its influence in the fine arts.

 To see design theory permeate our religious, cultural, moral and political life.¹

This language bears a striking resemblance to that spouted by anti-evolutionists to evolution in the early twentieth century. Wedge proponents are convinced that "modernism" is inherently immoral and that a wedge must be thrust between the leading social, political, and educational institutions in the United States and the naturalistic worldview that dominates the natural and social sciences. For example, Willard Gatewood quotes a 1920s Louisiana clergyman whose anti-evolutionism would fit comfortably within the contemporary rhetoric of Wedge strategists:

A modernist in government is an anarchist and Bolshevik; in science he is an evolutionist; in business he is a Communist; in art a futurist; in music his name is jazz and in religion he is an atheist and infidel. (Gatewood 1969, 6)

Similarly, Albert Johnson, a Presbyterian leader of the early twentieth century, claimed that evolution leads "to sensuality, carnality, Bolshevism, and the Red Flag" (quoted in Gatewood 1969, 24). Eighty years later, Phillip Johnson's (2000) book, *The Wedge of Truth: Splitting the Foundations of Naturalism*, pulls no punches in denouncing the same foe. On page 161, he writes that Darwinists are like Leninists—take away the dictatorial power from the elite and they will crumble, because evolution, like Leninism, has no substance. Like historians Gertrude Himmelfarb (1959, 1999) and Jacques Barzun (1941), Phillip Johnson repeatedly characterizes Marxism, Freudianism, and Darwinism as pseudoscientific remnants of the culture of the nineteenth century (Branch 2002a). To Phillip Johnson, the Enlightenment is a "parasite on

Christianity" (p. 162), which, like rationalism, "is dissolving into its antagonistic positivist and relativist components" (p. 167) and needs to be "repealed." The agenda of the Wedge strategists also includes the eradication of "materialism" in science and society. Materialism arises, Johnson claims, from "the Sin of Pride . . . which refuses to respect the limitation inherent on our states as both created and fallen beings" (p. 155). On page 151, he quotes John 1:1–3, "In the beginning was the Word, and the Word was with God, and the Word was God," and advocates: "Building a New Foundation for Reason: What If We Start with the WORD?" (this is the title of his chapter 7). Writings such as these by the leader of the Wedge movement reveal clearly the religious basis of his anti-evolutionism. Such knee-jerk rejection of evolution is political, personal, and philosophical—not scientific.

Despite their prodigious output of books, Web sites, letters to the editor, and op-ed pieces, ID proponents and Wedge strategists sometimes operate with surprising stealth. Whereas scholars are typically fanatic about publishing their ideas in journals or databases available for all time—and whereas careers rise or fall depending on feedback from a wide range of other scholars, including critics—a significant number of new creationist publications are either ephemeral or secret. Many seemingly quotable pieces posted by the Discovery Institute (DI) on its Web site are flagged with notices that they are not to be referenced. Many are posted and promptly erased. National planning conferences, such at those held at Biola University in 1996 ("Mere Creation") and 1999 ("After Materialism"), are often private affairs; outsiders are not invited and papers are not published. This is a strange way to treat "scientific" communications, whether the format is a press release, a scholarly conference, or a popular article. Some documents are available only to members with passwords. For example, sample curricula and classroom lesson plans "published" by the Center for the Renewal of Science and Culture (later renamed the Center for Science and Culture—CSC) are available only in this format, firewalled from evaluation by outsiders. Ironically, some anti-evolutionist documents can be

^{1.} This text disappeared from the Discovery Institute Web site shortly after it was posted. This excerpt appeared at www.humanist.net/skeptical/wedge.html—only one of the Web sites that opted to save the original version before it was removed from the DI Web site.

located only on the Web sites of evolution supporters who recognized their potential legal or historical import and saved them for future reference.2

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The anonymous and somewhat secretive appearance of the "Wedge Document" itself is discussed at length in a book by Barbara Forrest and Paul Gross called Creationism's Trojan Horse: The Wedge of Intelligent Design (2003). These authors exhaustively document the origin of the "Wedge"—its true authorship and centrality to the new anti-evolution movement. Despite its quick removal from the public areas of the DI Web site where it first appeared, pieces of that document preserved elsewhere present a fair overview of the plans that were originally posted, demonstrating how they have been echoed in Johnson's books and newsletter and subsequently modified. The DI coyly refuses to confirm that the "Wedge Document" is its work, but virtually identical wording has appeared under their names and in the works of "intelligent design" proponents and fellows at the DI's Center for Science and Culture, including Phillip Johnson, whose online newsletter, the Weekly Wedge Update, is hosted by the creationist Access Research Network (ARN 2002), which links to the Discovery Institute as its "partner."

Phillip Johnson and other Wedge proponents advocate a "big tent" assault on evolution, admitting all allies, from ID philosophers to televangelists. The young-earth creationists of the Institute for Creation Research (ICR) and Ken Ham with his fire-and-brimstone evangelism are as welcome in the Wedge movement as are the PhDs from the Discovery Institute. The shared commitment to oppose evolution seems to be enough for now-the new breed of antievolutionists hopes to sort out internal debates after evolution has been defeated (Scott 2001). This is the "party line," fostering cooperation among the different factions. But sometimes there is slippage in the common front. Discovery Institute scholars take pride in their elite status, which angers traditional creationists. After the Wielding the Wedge: Keeping Anti-Evolutionism Alive

"We wanted to talk about science, and they wanted us to do Sunday school," said Mark Edwards, a spokesman for the Discovery Institute. "The final episode paints a picture that the only critics of Darwinian theory are these guitar-strumming hillbillies in Kentucky who are creationists, and that's just not true. We're glad we're not part of that stereotype." (Carter 2001)

The Discovery Institute

Based in Seattle, Washington, the Discovery Institute (DI) has been instrumental in the development and promotion of "intelligent design" and the "Wedge." Founded in 1991 as an institutional home for President Reagan's economic adviser George Gilder, the institute quickly attracted funding and members, many of them former Reagan administration officials devoted to issues such as free trade, reduced environmental regulation, Social Security privatization, and other generally libertarian issues. With considerable funding from the timber industry, the DI initially focused largely on matters relating to Northwestern United States and Western Canadian policy. One corner of the DI not devoted to economics was the Center for the Renewal of Science and Culture (CRSC), which became the institutional base of the "intelligent design" and "Wedge" movements. In late 2002, in part because of criticism about the term Renewal, they renamed it "The Center for Science and Culture" and suggested that it henceforth be called "The Center" (Branch 2002b; Center for Science and Culture 2002; Center for the Renewal of Science and Culture 2002).

Senior fellows at the CSC include mathematician David Berlinski, theologian and molecular biologist Jonathan Wells, biophysicist Michael Behe, mathematician William Dembski, philosopher Paul Nelson, and others. Law professor Phillip Johnson and economist George Gilder are "advisers." At least one scholar critical of

²⁰⁰¹ PBS broadcast of the miniseries Evolution, a spokesperson for the Discovery Institute objected to the portrayal of anti-evolutionists and the producers' inclusion of ID in the episode devoted to religious anti-evolutionism:

^{2.} One of these sites is www.antievolution.org/wedge.html.

creationism, historian Edward Larson, was for a short time affiliated with the DI but not the CSC. Scholars with PhDs from established universities dominate CSC, which is in stark contrast to those who dominate the "scientific creationist" movement and whose degrees are sometimes literally from mail-order or unaccredited institutions. CSC goes to great pains to stress its high academic standards and tends to disparage old-style creationists, despite Wedge strategy "rules."

In the late 1990s, the CSC received a considerable boost thanks to a \$1.5 million grant from Fieldstead and Company, the private foundation of Howard Fieldstead Ahmanson, Jr.; this grant was later augmented by an additional \$2.8 million (Stephens 2002). He should not be confused with his late father, Howard Ahmanson, Sr., who owned Home Savings of America and whose Ahmanson Foundation funds environmental causes, public radio, various liberal projects, and science education. Ahmanson, Jr., in contrast, has funded creationism projects and has funded and served as a director of the Chalcedon Institute, an organization devoted to "Christian Reconstructionism"—a movement aiming to make the United States a theocracy governed by biblical law (Anson and Cogan 1994; Benen 2000).

Beginning at about the time of the Fieldstead grant, the CSC grew dramatically in public profile and activity level. Indeed, this appendage to the DI seems a bit like the tail wagging the dog, judging from the DI Web site, which is now dominated by press releases relating to CSC initiatives and publications. The vast majority of these postings concern ID theory and how to revise science education to include ID. They focus on how to eliminate naturalism or materialism from science. Thus should science and culture be "renewed."

One of many traits shared by new and old creationists is a concentration on "Darwinism" rather than on "evolution." Their single-minded critique of nineteenth-century scholarship dismays modern evolutionary biologists, who are asked to defend ideas long since discarded or refined—from the age of the earth to the alleged lack of transitional fossils to Haeckelian embryology. Jonathan Wells's

Icons of Evolution (Wells 2000; Padian and Gishlick 2002) is a catalogue of such arguments against a straw man called "Darwinism."

Another anti-evolutionary "tradition" links the Discovery Institute with scientific creationists of the past: a selective use of the scientific and scholarly literature to create the perception that evolution is a weakened theory under assault from within the scientific community. The misrepresentation of the scientific literature by ID advocates, done expressly to weaken evolution education, can become central to debates over science-education standards (see, for example, Branch 2002b and 2002c, on a case in Ohio). Such tactics mirror those employed by scientific creationists in the latter half of the twentieth century (Cole 1981). Clearly, despite the rhetoric to the contrary, this technique does not distinguish the work of a CSC "scholar" from that of an Institute for Creation Research pamphleteer.

The "Wedge" movement also takes comfort from other academic—though not necessarily *scientific*—critiques of evolution. Overt *political* anti-evolutionism is deeply rooted in conservative (especially *neoconservative*) political thought, and it has recently emerged also as a minor element of some leftist thought in "postmodernism" (Gross and Levitt 1998). Postmodernism is a perspective on the nature of knowledge in some academic disciplines—predominantly in the social sciences and humanities, but with important implications for science or at least for the public perception and interpretation of science. In brief, the argument is that all knowledge is "constructed," and thus "true" only in the context in which it is constructed; one cannot find absolutes (Sokal 1966).

Because in this view scientific research and discoveries are interpretable as social phenomena, a scientific theory such as evolution can be seen as merely one of many possible "ways of knowing," no more absolutely true than any other. While there is much to be said for understanding the scientific endeavor as a social phenomenon, it is easy to see how this discussion can be misrepresented as an indictment of the scientific method. To the contrary, postmodernism can be properly seen as supporting evolution

within the constructed knowledge of the scientific method while excluding the "intelligent design" movement, which seeks to acquire scientific legitimacy from outside the framework of scientific knowledge. Indeed, the deistic worldview that ID proponents would bring to science differs only in strategic use of vocabulary (e.g., "designer" rather than "creator") from that of old-style scientific creationism.

However, strategic word choice does have certain benefits for ID proponents. Some of the neoconservative academics from whom the new ID theorists draw support are "proper" scholars, including: renowned historian, critic, and essayist Jacques Barzun (1941), historian Gertrude Himmelfarb (1959, 1999), and William F. Buckley, Jr. (1997), host of PBS's Firing Line from 1966 to 1999. These individuals, as well as other prominent conservatives whose sympathetic views toward "intelligent design" have been published in the National Review, American Spectator, Intercollegiate Review, the Washington Times, and the Wall Street Journal, grant the movement an illusion of legitimacy. Their literature becomes a powerful resource for anti-evolutionists and for politicians who heed their call. The same politicians who might scorn the rhetoric of a Bible-thumping creationist will be open to similar ideas spouted by academics with the credentials and prestige of a Barzun or a Himmelfarb. Despite the fact that none of these commentators addresses the scientific aspects of evolution, their prominence as scholars produces a sort of "halo effect" that lends weight to their pronouncements about evolution that would never accrue to old-style scientific creationists.

Every "Victory" Counts

In addition to the arena of public opinion, Wedge activists have also focused on political action, perfecting the technique of going for small victories that can be represented as grand ones. For example, in 2001 Senator Rick Santorum (R-Pennsylvania) managed to attach a small, innocuous-looking item to S. 1, the bipartisan education bill; the Senate voted for the entire bill 91–8 (Branch 2002d). The Santorum amendment reads:

It is the sense of the Senate that—(1) good science education should prepare students to distinguish the data or testable theories of science from philosophical or religious claims that are made in the name of science; and (2) where biological evolution is taught, the curriculum should help students to understand why this subject generates so much continuing controversy, and should prepare the students to be informed participants in public discussion regarding the subject.

Immediately, creationists around the country began a drumbeat of claims that the Senate had voted almost unanimously to support teaching that evolution was controversial, echoing a long-standing Wedge goal of "teaching the controversy" (Discovery Institute 2001; see Petto and Godfrey, in this volume). In essence, the argument runs: "Just teach about how controversial evolution is and let students research both sides, let them argue, and education is well served. Oh, my—we would *never* consider banning evolution; in fact, we just want more to be taught about it, such as the [alleged] fact that it has all sorts of weaknesses, and then students can decide for themselves whether or not to believe such a theory." This is a clever variation on the old equal-time argument. The onus shifts from the school board or teacher to the student. "Who wants to stand in the way of students' doing their own research?" they argue.

In the end, the Santorum amendment was dropped from the bill in conference committee (Branch 2002d). After months of work by most of the U.S. scientific organizations, led by the American Geological Institute, this should have been the end of the matter, but Senator Santorum convinced the conference committee to include some discussion material about his discarded amendment in the committee report, though not in the bill. Even though this inclusion had no *legal* significance, creationists have been hailing this "victory" ever since, quoting the committee report as if it were law to school boards and anyone who will listen (Branch 2002e). The original Santorum wording was written by Phillip Johnson (2002), and the strategy of pulling victory from defeat via rhetoric and political spin is vintage "Wedge" and "new creationist."

Anti-evolutionists also appeal to the First Amendment on behalf either of teachers forced to teach something "against their religious beliefs" or of students required to study something "violating their religious freedom to disbelieve" in evolution. However, the response of the courts has been that First Amendment rights or academic freedom does not, in effect, give teachers the right to change the content of the approved curriculum or give students the right not to take required subjects. Courts have ruled against such claims in Washington state and Minnesota as recently as 2001 (Rodney LeVake v. Independent School District 656 et al. 2000; Scott 2000). In 2001, high-school students in Lafayette, Indiana, may have acted as a harbinger of a similar tactic: student-led demands for teaching creationism without overt adult input. However, these students' demands and slogans repeated arguments verbatim from the nationwide adult neocreationist movement, as could be seen in the PBS television series Evolution. The school board resisted their demand and supported the evolution curriculum (Evolution 2001; Randak 2001). Because they are neither outside agitators nor rebel teachers, students demanding their alleged religious freedoms are a more complex opponent for evolutionists, and this tactic is used to advantage by ID proponents. ID clubs are popping up as student organizations in universities and secondary schools around the nation.

Scientists Confront Creationism

Another ongoing tactic is the use of warning labels or disclaimers in textbooks. In various ways, these warn students that what they are about to study may be nonsense. Most intellectuals would agree, in principle, with the labels' admonition that textbooks should be read critically, but anti-evolutionists do not support models of critical thinking (see Petto and Godfrey, in this volume). In fact, many of them become very upset with efforts to teach critical thinking, on the grounds that it teaches general questioning of authority—first textbooks, next parents and teachers, and then the Bible. Norma Gabler and her late husband, Mel, perpetual Texas textbook critics, exemplify this sentiment. The subtler approach they and many others have advocated in

Texas, Louisiana, and other states is a textbook warning that evolution alone requires critical assessment. In December 2001, Alabama renewed its statewide requirements for such a textbook disclaimer, singling out evolution as "controversial" and advising students to think for themselves on this one. The new Alabama disclaimer reads, in part:

The Alabama Course of Study: Science includes many theories and studies of scientists' work. The work of Copernicus, Newton and Einstein, to name a few, has provided a basis of our knowledge of the world today. The theory of evolution by natural selection is a controversial theory that is included in this document. It is controversial because it states that natural selection provides the basis for the modern scientific explanation for the diversity of living things. Since natural selection has been observed to play a role in influencing small changes in a population, it is assumed, based on the study of artifacts, that it produces large changes, even though this has not been directly observed. (Anonymous 2001)

Recently, lawsuits have successfully challenged these disclaimers. Efforts by Tangipahoa Parish, Louisiana (Freiler v. Tangipahoa 1997), to require an oral disclaimer read by teachers in biology classes resulted in the school board's and its insurer's loss of serious cash as each appeal piled up the bills and then failed. That district seems to have dropped its efforts, for now. In Selby, Georgia, a federal judge ordered the disclaimers removed from biology textbooks. In Dover, Pennsylvania, a lawsuit (Kitzmiller v. Dover)3 that dealt in part with the school board's demand that science teachers make students aware of "alternative" scientific theories such as "intelligent design" resulted in a legal repudiation of the ID argument and electoral defeat for the school-board members who had promoted ID. It also incurred severe legal expenses for the district, which was billed for court costs, although it had pro bono legal representation.

The expense of lawsuits is certainly one issue that can operate

^{3.} The decision in this case is available at www.pamd.uscourts.gov/kitzmiller/ kitzmiller_342.pdf.

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in favor of anti-evolutionists. Free legal services are scarce and rationed by defenders of evolution education, often because they are drawn from organizations that take on anti-evolutionism as only one of many issues. However, a number of anti-evolution legal resources are available through organizations that focus primarily on opposing secular materialism (see Cole 2000).

For example, the Rutherford Institute is devoted to providing legal advice and litigation on behalf of conservative—some would say theocratic—Christian causes. The American Council for Legal Justice (ACLJ) was founded, directly or indirectly, by Pat Robertson and the Christian Coalition to act as a sort of mirror image and acronym look-alike to the American Civil Liberties Union (ACLU) (Newfield 2002). Both organizations concentrate on a very conservative version of "Christian" and "family" issues and have entered several of the new anti-evolution legal frays; it seems likely they will continue and expand this interest. More recently, the Thomas More Law Center (TMLC) has emerged as a source of legal support for the teaching of ID in public schools. The TMLC describes itself as "a not-for-profit public interest law firm dedicated to the defense and promotion of the religious freedom of Christians, time-honored family values, and the sanctity of human life."4 The "science" these groups promote is not one committed to understanding the world around us in terms of the operation of natural laws. They want to eliminate from science any reliance-indeed, insistence—on a naturalistic methodology.

Concluding Remarks

The goal of anti-evolutionists has remained the same for the last eighty years, but the tactics of twenty-first-century opponents are more varied and sometimes more sophisticated. The "Wedge Document" is a strategic plan to separate public understanding of science from the naturalistic method and practice on which science has been based for more than two centuries. The Wedge is much more flexible and more sophisticated and "modern-

4. Information about TMLC comes from its Web site: www.thomasmore.org/about.html.

looking" than earlier versions of creationism. It is covert in its use of biblical language and references (but see the earlier discussion of Johnson's work and the discussion in Scott-in this volume-regarding the "ancestry" of ID in old-style creationism), even though at its heart it attacks "modernism" just as much as some evangelists did at the time of the Scopes trialand with the same warnings about its perilous effects on society and personal salvation. If there is an exploitable weakness in this manifestation of anti-evolutionism, it is that the handful of welltrained scholars associated with the Discovery Institute's Center for Science and Culture are ill at ease with their allies in the "traditional" creationist organizations. The reverse is also true: Institute for Creation Research leaders welcome any criticism of evolution, but they fault the ID camp for not embracing biblical literalism. Indeed, young-earth creationist John Whitcomb (2006) characterizes ID as "vastly insufficient." Such tensions have led to occasional breaches in the united front that modern anti-evolutionists have pursued. A rift may be growing within the "big tent" between traditional biblical literalists and those promoting the use of less overtly religious language.

Ironically, evolutionists may be able to exploit such cracks in much the same way Wedge strategists exploit splits within the modern academic world. Showing traditional creationists why ID will never be able to move respectably toward overt support for sectarian religious positions might weaken support for ID among those who wish to use it as a first step toward reestablishing a biblical basis for public life. Furthermore, within the "big tent" are some who are quite comfortable with aspects of evolutionary theory (see Scott's discussion of "theistic evolution" and the relationship of its supporters to others in the "big tent" of ID). It may be possible to develop a "web" strategy that can draw these people closer to contemporary science through shared concerns such as support for biomedical and agricultural research—concerns that can work to "stitch coalitions together" (Carville and Begala 2001). As we have seen, the anti-evolutionist movement is itself philosophically diverse. We need to emphasize those goals and

values that are shared by many evolutionary biologists and people who may have been drawn to the "big tent" but who are uncomfortable with both biblical literalism and with metaphysical naturalism (Scott 2001; and others in this volume).

What is at stake is nothing less than the public understanding of the nature of science—and an organized effort by a small group of individuals to reshape that understanding. In part, this may be accomplished through the renewed emphasis among professional educators in teacher preparation and professional development and outreach to school boards and legislatures. The "web" will show these parties a view of scientific issues that reflects the contemporary practice of science as it is understood by its professional practitioners.

This is a long-term and time-consuming strategy with many dimensions (as recognized by the original "Wedge Document"). It is clear that the issues go far beyond the legal and constitutional battles. Although constitutional barriers to overtly sectarian ideas in the sciences have served well in preserving evolution education, changes in the positioning and judicial philosophy of sitting judges could quite easily erase eighty years of support for evolution in the public schools (Newfield 2002). There is, after all, no constitutional protection against pseudoscience.

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