

**UNDERSTANDING THE INTELLIGENT DESIGN CREATIONIST MOVEMENT:
ITS TRUE NATURE AND GOALS**

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AUTHOR: BARBARA FORREST, Ph.D.

**Reviewing Committee: Paul Kurtz, Ph.D.; Austin Dacey, Ph.D.; Stuart D. Jordan, Ph.D.;
Ronald A. Lindsay, J. D., Ph.D.; John Shook, Ph.D.; Toni Van Pelt**

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UNDERSTANDING THE INTELLIGENT DESIGN CREATIONIST MOVEMENT: ITS TRUE NATURE AND GOALS

Barbara Forrest, Ph.D.

I. Introduction: What is at stake in the dispute over intelligent design?

This paper will examine the intelligent design (ID) movement (which, for the reasons set forth below, will be referred to as the intelligent design creationist movement). In particular, this paper will examine the ID movement's organization, its historical and legal background, its strategy and aims, and its public policy implications.

As this paper demonstrates, the ID movement is the most recent version of American creationism. In promoting "intelligent design theory"—a term that is essentially code for the religious belief in a supernatural creator—as a purported scientific alternative to evolutionary theory, the ID movement continues the decades-long attempt by creationists either to minimize the teaching of evolution or to gain equal time for yet another form of creationism in American public schools. Accordingly, the ID creationist movement threatens both the education of the nation's children and the constitutional separation of church and state, which protects the religious freedom of every American (Forrest and Gross, 2005). Despite political and legal setbacks (*Kitzmiller et al. v. Dover Area School District*, 2005), ID creationists continue their campaign to de-secularize public education and, ultimately, American culture and government, thereby undermining foundational elements of secular, constitutional democracy.

Both the right to religious freedom, guaranteed by the First Amendment to the U.S. Constitution, and the right of every child to be educated in public schools have been among America's greatest sources of domestic strength and stability. The separation of church and state has engendered vibrant religious diversity while protecting Americans from religious coercion, either by the government directly or by their fellow citizens who would use the government as an instrument of such coercion. To advance their anti-science and anti-secularism agenda, ID creationists at the Discovery Institute's Center for Science and Culture seek to use public schools "to defeat scientific materialism and its destructive moral, cultural and political legacies," "to replace materialistic explanations with the theistic understanding that nature and human beings are created by God," and to "see design theory permeate our religious, cultural, moral and political life" (Discovery Institute, 1998).

Public education and the separation of church and state are interdependent; the strength of American constitutional democracy depends on the preservation of both. Although implementing the First Amendment's guarantee of religious freedom has sometimes been difficult, public schools have been generally successful in providing an educational environment free of religious strife for 90% of American children, thus enabling them to concentrate on acquiring the knowledge and skills necessary to economic and civic life (Americans United for Separation of Church and State, Doc. 623). As the largest public institution in the first secular democracy in history, public schools, with 48 million students (National Center for Education Statistics, 2005), must not become the vehicle for an attack on science and secular society (Americans United for Separation of Church and State, Doc. 601).

The consequences of allowing ID creationist theory to be taught in our public schools extend well beyond public education. A recent article in *Science*, one of the world's premier scientific journals, revealed the reason that among the thirty-four developed countries surveyed, the U.S. ranks second from last in the number of adults who accept the theory of evolution: "The acceptance of evolution is lower in the United States than in Japan or Europe, largely because of widespread fundamentalism and the politicization of science in the United States" (Miller et al., 2006). With science, especially biology, progressing at a record pace, providing the means to enhance the quality of life in every country in the world, the 21st century will be the century of biotechnology. As the leader of the scientific community, the U.S. can ill afford to allow the intelligent design creationist movement to further erode the already low level of scientific literacy among the American public.

II. What is the intelligent design creationist movement?

There is widespread popular misunderstanding of the true nature and goals of the ID creationist movement. In order to counteract it effectively, an accurate understanding of its nature and agenda is imperative. The conception of ID as non-biblical and of its status as an alternative scientific theory—a conception based on ID proponents' self-description, which has echoed throughout the popular media—is wrong.

"Intelligent design theory" is the newest variant of the traditional creationism that has plagued American public schools for decades. Most ID proponents are "old-earth" creationists (OEC). ID is a direct outgrowth of the "progressive" creationism of the 1980s, a form of OEC

based on the belief that nature operates according to both natural laws and periodic acts of special creation by God to create progressively more complex life forms. There are variations in the views of ID proponents. Most accept Earth's age as 4.5 billion years, although some are "young-earth" creationists (YECs) who believe that Earth is only 6,000-10,000 years old. Some, such as Michael Behe, accept the common ancestry of humans and apes. However, virtually all reject natural selection as the mechanism of significant evolutionary changes. ID proponents, like earlier creationists, accept only a limited amount of evolutionary change within the borders of a species, such as the ability of natural selection to produce longer beaks in birds or pesticide resistance in insects. Behe also denies the power of natural selection to construct cellular structures that he considers "irreducibly complex." All believe that the limited power of evolution must be supplemented by God's acts of special creation (Scott, 2004).

The ID movement is physically headquartered in the Center for Science and Culture (CSC), established in 1996 as the creationist wing of the Discovery Institute (DI), a conservative think tank in Seattle. The CSC awards lucrative fellowships of \$40,000-50,000 per year "to support high quality scholarship . . . relevant to the question of evidence for intelligent design in nature" (not all fellows receive funding) (Center for Science and Culture, 2007). Most of the CSC's funding has come from a wealthy benefactor, Howard Ahmanson, Jr., who supports the organization's religious mission, as do its other funding sources, the Maclellan Foundation and the Stewardship Foundation (Forrest and Gross, 2004a, 2007a, 148-50, 266-67). The CSC is assisted by several auxiliary organizations: Access Research Network (ARN), a clearinghouse for ID videos, books, etc.; the Kansas-based Intelligent Design Network (IDnet), which promotes ID through its various state affiliates; and two student organizations, the IDEA (Intelligent Design and Evolution Awareness) Center and the Intelligent Design Undergraduate Research Center (IDURC), which recruit high school and college students as ID supporters (Forrest and Gross, 2004a, 2007a, 167-68).

Contrary to popular opinion and to media coverage that incorrectly asserts that ID is not based on the Bible, ID is every bit as biblically based as the creationism that preceded it. The movement's leaders have defined ID in overtly religious terms, identifying the intelligent designer as the God of the Bible and referring to themselves as creationists. However, in order to avoid divisive arguments with YECs (for example, concerning the age of the earth), whom they need as

political allies, ID proponents do not use Genesis as the basis for ID. They appeal instead to the New Testament Gospel of John: “In the beginning was the Word, and the Word was with God, and the Word was God. / The same was in the beginning with God. / All things were made by him; and without him was not anything made that was made. / . . . He was in the world, and the world was made by him, . . .” (John 1:1-3, 10, KJV) They consider promoting ID to be their duty as Christian apologists who must defend the faith against what they perceive as attacks emanating from science (Forrest, 2005a, 3-4).¹

Walter Bradley, a founding member of the ID movement and an early CSC fellow, has spoken openly of God in his work on “progressive creationism”: “The progressive creationist sees God working . . . through a combination of miracle plus [natural] process” (quoted in Forrest, 2005a, 14). Phillip E. Johnson, CSC advisor and de facto leader of the ID movement, defines ID as requiring the reality of God: “My colleagues and I speak of ‘theistic realism’—or . . . ‘mere creation’—as the defining concept of our movement. This means that we affirm that God is objectively real as Creator, and that the reality of God is tangibly recorded in evidence accessible to science, particularly in biology” (quoted in Forrest, 2005a, 31). William Dembski, a CSC fellow and the movement’s leading intellectual, stipulates that the designer must be “a supernatural intelligence” (quoted in Forrest, 2005a, 35). Moreover, Dembski, in appealing to John’s Gospel, identifies the designer as the Christian God, making ID not only a religious but also a sectarian belief: “Indeed, intelligent design is just the Logos theology of John’s Gospel restated in the idiom of information theory” (quoted in Forrest, 2005a, 26-27). (The Greek word “Logos” refers to Jesus Christ.) Dembski’s book for the popular audience, *Intelligent Design: The Bridge Between Science and Theology*, discusses ID in specifically Christian terms (Dembski, 1999).

Even biochemist Michael Behe, one of the few ID proponents who is a practicing scientist, and who insists that he became an ID proponent for purely scientific reasons, says that “scientific evidence of design means a lot for Christians” because of the opportunity it provides for defending Christianity: “Christians live in the world with non-Christians. We want to share the Good News with those who have not yet grasped it, and to defend the faith against attacks. Materialism is both a weapon that many antagonists use against Christianity and a stumbling block to some who would otherwise enter the church. . . . Although Christianity can live with a

world where physical evidence of God's action is hard to discern, materialism has a tough time with a universe that reeks of design” (Behe, 1998).

There is much more such evidence to show that ID is not science, as its proponents misleadingly portray it to the public and to policymakers, but rather religion, as they portray it candidly to their conservative Christian constituency. ID has been thoroughly analyzed by competent scholars, and their research debunking it has been published.² Much of it was used by the plaintiffs in the first court test of the constitutionality of teaching ID, *Kitzmiller et al. v. Dover Area School District* (Kitzmiller, 2005). In a decisive opinion by Judge John E. Jones III (Middle District of Pennsylvania), ID failed this legal test.

Since the bedrock of the ID creationist movement is its rejection of modern scientific methodology, it is not altogether surprising that Judge Jones found that ID lacks proper scientific credentials. Science requires testable hypotheses. Because conjectures about the actions of “designers” or other supernatural agents are not testable (at least, no one has yet developed a way to test such conjectures) the methodology of science, sometimes called “methodological naturalism,” limits scientists to the search for natural explanations of natural phenomena. Despite the historical fact that, several centuries ago, scientists abandoned as unworkable the attempt to explain natural phenomena by appeals to the supernatural, ID proponents argue, like earlier creationists, that modern science’s exclusion of the supernatural as a scientific explanation is arbitrary. In *Darwin on Trial*, Phillip Johnson argues that evolution is accepted by the scientific community only because scientists have made a dogmatic, a priori commitment to naturalism (Johnson, 1991). After the Supreme Court declared the teaching of creationism unconstitutional in *Edwards v. Aguillard* (1987), Johnson decided that the creationists had lost that case because of their unfair exclusion from science by the scientific community’s naturalistic definition of science. Consequently, creationists must redefine science to restore the supernatural: “Definitions of science, [Johnson] argued, could be contrived to exclude any conclusion we dislike or to include any we favor” (Nelson, 2002, 3). The ID movement thus chose to operate with an unworkable, pre-modern definition of science that requires appeals to the supernatural in order to construct an “adequate” explanation of natural phenomena.³ Yet ID proponents have never provided a plausible explanation of why untestable—hence unscientific—claims about supernatural causation are needed, or even useful, for understanding natural phenomena.

III. The historical and legal background of intelligent design creationism.

The ID movement developed out of the rejection of evolution by people who believe that the moral ills of the modern world have been caused by Charles Darwin's revolutionary ideas (Forrest, 2005b, 10-13). Phillip Johnson began his crusade against evolution after his conversion to Christianity in his late thirties (Schoch, 1991). William Dembski, who converted from Catholicism to evangelical Christianity as a college student (Smith, 2005), has devoted his adult life to promoting ID as a Christian apologist: "The job of apologetics is to clear the ground, to clear obstacles that prevent people from coming to the knowledge of Christ. . . . And if there's anything that . . . has blocked the growth of Christ [and] . . . people accepting the Scripture and Jesus Christ, it is the Darwinian naturalistic view" (Benen, 2000, 14). The history of the ID movement is replete with similar personal stories.

However, ID leaders and others who are religiously and ideologically opposed to evolution face a major obstacle in promoting their anti-evolutionary beliefs, especially in the public schools: the courts have been unequivocal in ruling that, because it represents an attempt to promote religious belief, the state-sponsored teaching of creationism in any form is unconstitutional. In addition to *Kitzmiller*, which applies specifically to ID (discussed in section V), there are at least nine major court decisions prohibiting creationism in public schools (Matsumura, 2001); three are immediately relevant here and are summarized below:

Epperson v. Arkansas, 393 U.S. 97 (1968). Prior to 1968, creationists attempted to keep evolution out of public schools by prohibiting it through statutes such as Tennessee's 1925 Butler Act (Tennessee Evolution Statutes, 1925). In *Epperson*, the U.S. Supreme Court ruled that an Arkansas statute prohibiting the teaching of evolution was unconstitutional and that states may not alter the curriculum to conform to the beliefs of particular religious sects (*Epperson*, 1968).

McLean v. Arkansas Board of Education, 529 F. Supp. 1255 (1982). When efforts to ban the teaching of evolution failed, creationists sought "balanced treatment" through statutes such as Arkansas's Act 590, which mandated that "creation science" be taught alongside evolution. In *McLean*, federal judge William Overton declared Act 590 unconstitutional. Although *McLean* was a district court ruling (U.S. District Court, Eastern District of Arkansas) and was therefore not binding on schools outside that district, it has had a powerful influence on subsequent rulings concerning creationism because of its clear, specific definition of science,

which Judge Overton used to rule that “creation science” is religion, not science. (*McLean*, 1982)

Edwards v. Aguillard, 482 U.S. 578 (1987). Louisiana’s 1981 “Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction” Act, which resembled Arkansas’s Act 590 passed the same year, produced this landmark U.S. Supreme Court decision prohibiting creationism in public school science classes. The Court ruled that the Louisiana law unconstitutionally endorsed religion because “the preeminent purpose of the Louisiana Legislature was clearly to advance the religious viewpoint that a supernatural being created humankind” (*Edwards*, 1987). *Edwards* is now the centrally important legal standard for all federal judges in creationism cases.

As stated earlier, ID is the direct descendant of earlier forms of creationism. After *Edwards*, a group of creationists decided to adopt “intelligent design” terminology in an attempt to skirt this Supreme Court ruling (Forrest, 2005a, 16-18; 2005b). CSC fellow Charles Thaxton, co-author of the seminal ID book, *The Mystery of Life’s Origin* (Thaxton et al., 1984), chose the term “intelligent design” in 1988 to designate the product of the post-*Edwards* transformation of creation science (Witham, 2002, 221). Dean H. Kenyon, a CSC fellow who submitted a sworn affidavit as a creation scientist in the *Edwards* case while he was also co-authoring the ID creationist textbook *Of Pandas and People*, admitted candidly in 2000 that “Scientific creationism . . . is actually one of the intellectual antecedents of the Intelligent Design movement” (Wiker, 2000).

Reflecting its direct creationist ancestry, ID proponents today continue to lodge the same criticisms against evolution that creationists have used for decades (Forrest, 2005a, 19-22). They have jettisoned only the distinctive elements of young-earth creationism, such as Earth’s young age and Noah’s flood. These elements would too blatantly identify ID as creationism and thus prevent many of their sympathizers from endorsing the CSC’s agenda, knowing that doing so would automatically doom their efforts to legal defeat. However, revealing examples of the congruence between ID and the creation science of several decades ago can be gleaned from the writings of creation scientists and ID creationists, as a couple of examples suffice to show (taken from Forrest, 2005c):

Denial that evolution is a fact:

[Creation Science] “Although widely promoted as a scientific fact, evolution has never been proved scientifically. Some writers still call it the *theory* of evolution, but even this is too generous. . . . Evolution is . . . neither fact, theory, nor hypothesis. It is a belief—and nothing more.” (Henry Morris, “Evolution, Creation and the Public School,” *Impact*, March 1, 1973)

[Intelligent Design] “One misconception concerns the status of evolution as a fact. . . . [I]t is common to hear . . . that evolution is not merely a theory but an indisputable fact. . . . [O]nly in the most trivial sense—change over time—can evolution be considered a fact. . . . If students are to achieve true scientific literacy, they must learn to distinguish fact from supposition.” (Mark D. Hartwig and Stephen C. Meyer, 1993, *Of Pandas and People*, 154, 157)

Assertion of gaps in the fossil record (implying sudden appearance, thus divine creation, of life forms):

[Creation Science] “There is . . . a tremendous gap between one-celled microorganisms and the . . . many invertebrate phyla of the Cambrian [period]. If the former evolved into the latter, it seems impossible that no transitional forms between any of them would . . . be preserved or found. . . . [S]pecies appear suddenly in the fossil record, with no incipient forms leading up to them. . . . [H]ow does the evolutionary model account for these . . . gaps in the fossil record? . . . In view of the wealth of fossils now available, it is impossible to say . . . that the gaps will be filled in by further fossil collecting.” (Henry Morris, 1974, *Scientific Creationism*, 81, 87, 89)

[Intelligent Design] “To say that the fauna of the Cambrian period appeared in a geologically sudden manner also implies the absence of clear transitional intermediate forms connecting Cambrian animals with simpler pre-Cambrian forms. . . . [I]n almost all cases, the Cambrian animals have no clear . . . antecedents. . . . Further, several recent discoveries . . . suggest that these . . . gaps may not be merely an artifact of incomplete sampling of the fossil record.” (Stephen C. Meyer, 2004, “Intelligent Design: The Origin of Biological Information and the Higher Taxonomic Categories,” *Proceedings of the Biological Society of Washington* 117 (2), 215)

These examples—only a few of many—confirm that ID is merely a continuation of earlier creationism. Reacting to the legal defeats of the 1980s and hoping to secure their movement against future challenges, creationists have simply selected “intelligent design” as the “new” nomenclature of their movement in an attempt to conceal this fact from the public, government policymakers, and federal judges. (For a detailed legal, philosophical, and scientific analysis of ID, see Brauer et al., 2005.)

IV. The ID movement's aims and strategy.

The "Wedge Strategy"

The Center for Science and Culture has outlined its strategy over the next twenty years in a 1998 document entitled "The Wedge," known informally as the "Wedge Document" (Discovery Institute, 1998; Forrest and Gross, 2004a, 2007a, ch. 2). Using Johnson's metaphor of a metal wedge that can split a log, the ID movement aims to use its aggressive public relations program of book publication, lectures, etc., to create an opening for the supernatural in the public's understanding of science—and in the minds of policymakers. Pro-evolution theologian John Haught (Georgetown University) describes this aim concisely in his review of Johnson's book, *The Wedge of Truth* (Johnson, 2000): "The 'Wedge' of truth will split the 'modern' naturalistic synthesis asunder. Its cutting edge consists of the brave (and academically marginalized) defenders of 'Intelligent Design,' especially William Dembski, Michael Behe, and Johnson himself. Inserted into 'the log of naturalism' and hammered home by Johnson's logic, the Wedge—in combination with the cultural influence of evangelical Christianity—will breach the palisade of scientific naturalism and expose the infectious evolutionary ideas that are its main carrier" (Haught, 2000, 11-12).

ID creationists at the Discovery Institute's Center for Science and Culture have been relentless in their execution of the Wedge Strategy. (There is one exception: the first phase of the strategy listed in the Wedge Document, "Scientific Research," has remained conspicuously undeveloped, although DI recently announced the establishment of a "research" facility; see section V.) Since 1992, ID proponents have been engaged in an energetic schedule of conferences, publication, lectures (mostly at universities, where there is a ready pool of recruits), website creation, radio and TV appearances, and now blogging and podcasting (Forrest and Gross, 2004a, 2007a, ch. 6-7). (The 1998 Wedge Strategy document, which formalized the movement's strategy, was used to raise funding in order to continue the effort that had actually begun in 1992.) Public relations is the group's forte; DI has even retained the services of Creative Response Concepts (now CRC Public Relations), whose clients have included Microsoft, Time Warner, Inc., the Walt Disney Company—and the erstwhile Swift Boat Veterans for Truth (CRC Public Relations, 2007; Boehlert, 2004). But ID proponents also have an even better, nation-wide PR infrastructure of which they make constant use, especially to recruit young supporters: churches and campus youth ministries (Forrest and Gross, 2004a, 2007a, 268-70).

Implementation of the Wedge Strategy has been most apparent in the arena of public education. Indeed, it is no exaggeration to say that the Wedge Strategy is the ID movement's logistical contribution to the Religious Right's execution of its public education and public policy agendas. Although ID proponents persistently deny advocating the teaching of ID in public schools (West, 2005), there is much evidence—including direct statements by ID leaders—that belies their denials. For example, one Wedge Document goal is that “Ten states begin to rectify ideological imbalance in their science curricula & include design theory.” However, tacitly acknowledging the constitutional problems surrounding the teaching of ID, the document also announces that the Discovery Institute will “pursue possible legal assistance in response to resistance to the integration of design theory into public school curricula” (Discovery Institute, 1998). In addition, CSC Program Director Stephen C. Meyer co-authored *Intelligent Design in Public School Curricula: A Legal Guidebook*, a book for public school teachers and administrators that explicitly argues for the constitutionality of teaching ID (DeWolf et al., 1999). This book was later revised and published as an article in the *Utah Law Review* (DeWolf et al., 2000). In August 2005, only a little more than a month before the *Kitzmiller* trial was to begin, Dembski thanked President George Bush for supporting the teaching of ID along with evolution and reiterated the ID movement's desire to have ID taught as science in public schools: “President Bush is . . . completely on target in wanting intelligent design taught in the public school science curriculum” (Dembski, 2005). However, the most compelling evidence of the Discovery Institute creationists' persistent push to get ID into public schools is their active involvement in efforts to alter state science standards, as in Ohio and Kansas, for example (Forrest and Gross, 2004a, 2007a, ch. 8). These efforts generated a high level of publicity because of their potential statewide impact, but DI has also been involved in local efforts, for example, in Darby, Montana, a small town that became bitterly divided over the ID issue (Forrest and Gross, 2004b; Clark, 2004).

Since ID's unequivocal legal defeat in *Kitzmiller*, Phillip Johnson has tried to diminish his role in promoting the teaching of ID, asserting that the Dover school board's ID policy was a bad idea and expressing mixed feelings about President Bush's support: “I'm glad to see the idea that there's something to discuss here get further off the ground, but the fact that it was Bush who said it put the issue into the red state blue state political mix. . . . I was more dismayed than

elated to see the thing surface in the context of our political divide” (D’Agostino, 2006, 33). However, the truth about Johnson’s involvement in promoting ID is distinctly different.

Johnson has been actively involved in cultivating political support for ID at both the state and national levels. He contributed money and public support to a creationist candidate in the August 2000 Kansas Board of Education election (Forrest and Gross, 2004a, 2007a, 221). He also wrote a “sense of the Senate” resolution intended to provide congressional sanction for teaching ID (Forrest and Gross, 2004a, 2007a, 240-42). Dubbed the “Santorum amendment” because of former Senator Rick Santorum’s sponsorship of the resolution in the U.S. Senate in June 2001, it passed in the Senate and was added to the No Child Left Behind bill. The conference committee later revised the resolution language and moved it to the legislative history, where it survives in the following form:

The conferees recognize that a quality science education should prepare students to distinguish the data and testable theories of science from religious or philosophical claims that are made in the name of science. Where topics are taught that may generate controversy (such as biological evolution), the curriculum should help students to understand the full range of scientific views that exist, why such topics may generate controversy, and how scientific discoveries can profoundly affect society (Forrest and Gross, 2004a, 2007a, 243).

Even as a Senate resolution in the bill itself, the language would not have had the force of law (Branch and Scott, 2003), but it has been invaluable to ID proponents for promotional purposes. Johnson has acknowledged his role in these political maneuvers, clearly hoping that the Santorum amendment would assist ID supporters in getting ID into their public schools: “Whether school districts are required to comply with the Santorum amendment will be uncertain until a court decides the point. . . . [T]he amendment states an excellent educational policy that school authorities and teachers ought to support whether or not it is a legal requirement. . . . The Santorum amendment gives advocates for truth all we really need to get started. . . . If the Santorum amendment is the guiding policy, . . . teachers can hardly explain why the theory of evolution continues to be controversial without mentioning . . . problems with the evidence. Once that subject is mentioned, a door has been opened, and it will be hard to shut it again” (Johnson, 2003). Indeed, the Santorum amendment has subsequently been used by creationists in numerous proposals to school boards and in proposed state legislation

(Matzke, 2005). To the extent that ID continues to present problems in public school districts, Johnson deserves much of the blame.

The Wedge Strategy: not just intelligent design

Efforts by ID creationists to get ID into public schools is merely the most visible feature of a broader goal. Working with some of their allies on the Religious Right, the ID movement is pursuing an agenda that should disturb all Americans, both religious and non-religious. They are pursuing a vision for the country which, once known, should be roundly rejected. The Center for Science and Culture (CSC), formerly known as the Center for *the Renewal of Science and Culture*, dropped the term “renewal” from its name several years ago in order to present a more scientific, secular appearance.⁴ However, the CSC’s name change cannot mask its objectives. CSC creationists look with disdain at the secular government that the nation’s founders constructed deliberately in order to provide a welcoming environment for people of all faiths and people of none; their disdain extends to secular society and education. The “renewed” America envisioned by ID creationists is marked by religious exclusionism of a kind that shuts out many other Christians as well as non-Christians.

America’s secular, constitutional democracy is a product of the Enlightenment, the “Age of Reason.” Thomas Jefferson, for whom rational inquiry was among the inalienable rights of humankind, believed that the flourishing of Christianity itself was attributable to free, rational inquiry: “Reason and free enquiry are the only effectual agents against error. . . . Had not the Roman government permitted free enquiry, Christianity could never have been introduced. Had not free enquiry been indulged, at the aera [sic] of the reformation, the corruptions of Christianity could not have been purged away” (Jefferson, 1782). Jefferson understood the essential connection between rational inquiry and religious freedom: “We have solved, by fair experiment, the great and interesting question whether freedom of religion is compatible with order in government and obedience to the laws. And we have experienced the quiet as well as the comfort which results from leaving every one to profess freely and openly those principles of religion which are the inductions of his own reason and the serious convictions of his own inquiries” (Jefferson, 1808). James Madison, a deeply religious man, saw the danger in allowing religion and government to merge; he knew that religious freedom thrives best when the two remain separate: “The Civil Govt, tho’ bereft of everything like an associated hierarchy, possesses the requisite

stability and performs its functions with complete success, Whilst the number, the industry, and the morality of the Priesthood, & the devotion of the people have been manifestly increased by the total separation of the Church from the State” (quoted in Brenner, 2004, 272).

ID proponents reject the legacy of the Enlightenment on which America is founded (Forrest and Gross, 2005). Dembski is unambiguous on this point: “The scientific picture of the world championed since the Enlightenment is not just wrong but massively wrong. Indeed, entire fields of inquiry, especially in the human sciences, will need to be rethought from the ground up in terms of intelligent design” (Dembski, 1999, 224). He forecasts the “impending collapse” of “Enlightenment rationalism and scientific naturalism” (Dembski, 1999, 14). Both Dembski and Johnson position themselves in opposition to secular government, education, and society, preferring instead that America reflect their own religious preferences. Dembski contends that ID proponents must “engage the secular world, reproving, rebuking, and exhorting it, pointing to the truth of Christianity and producing strong arguments and valid criticisms that show where secularism has missed the mark” (quoted in Forrest and Gross, 2005, 200). Johnson falsely equates secularism with atheism. He ignores the fact of American religious diversity and bemoans the secularization of American universities such as Yale, with barely concealed disdain for the values of the Enlightenment: “By [1951, when Yale had abandoned its Christian orientation,] the Christian atmosphere . . . represented little more than a religious veneer over the secular [E]nlightenment values of freedom of inquiry, political equality, and public service” (quoted in Forrest and Gross, 2005, 201). Johnson even accuses “secularised intellectuals” of religious apostasy: “Secularised intellectuals have long been complacent in their apostasy because they were sure they weren’t missing anything important in consigning God to the ashcan of history” (quoted in Forrest and Gross, 2005, 202).

One of the most disturbing elements of ID is its religious exclusionism. CSC fellow Henry “Fritz” Schaefer III sees little hope of heaven for non-Christians: “All other religions . . . deny that Jesus is God. . . . No one questions the sincerity and intensity of the faith of . . . a Buddhist monk. But sincerity or intensity of faith does not create truth. . . . Exclusivity seems unavoidable” (quoted in Forrest and Gross, 2005, 198). Dembski, however, advocates an even more extreme religious exclusionism by proposing to revive heresy as a response to the rejection of the “inviolable core” of Christianity, and for this he is willing to sacrifice civic peace: “Within late twentieth-century North American Christianity, *heresy* has become an unpopular word.

Can't we all just get along and live together in peace? Unfortunately, the answer is no. . . . [H]eresy remains a valid category for today" (Forrest and Gross, 2005, 199).

In furtherance of their exclusionary vision, ID creationists have developed partnerships with the extreme Christian Right and other far-right groups that reject mainstream American religious and political values. The extent to which ID creationists share all the goals of these extremists is debatable, but ID proponents would not make common cause with them if such partnerships were not congenial to the Wedge Strategy in important respects. Phillip Johnson has spoken against evolution before the Council for National Policy, a relatively small but secretive conservative organization that, since its founding in 1981, has included powerful Religious Right leaders and high-level political figures with influence on government policy (Leaming and Boston, 2004, 8). The CNP membership also includes a sizeable segment of Christian Reconstructionists: "Reconstructionists espouse a radical theology that calls for trashing the U.S. Constitution and replacing it with the harsh legal code of the Old Testament. They advocate the death penalty for adulterers, blasphemers, incorrigible teen-agers, gay people, 'witches' and those who worship 'false gods'" (Leaming and Boston, 2004, 11). Some ID leaders have formed working alliances and share some degree of ideological alignment with Reconstructionists (Forrest and Gross, 2004a, 2007a, 266-67; Forrest, 2007b). Howard Ahmanson, Jr., from whom the CSC receives the lion's share of its funding, served on the board of the Reconstructionist Chalcedon Foundation for twenty-three years (he is now on the Discovery Institute Board of Directors) (Forrest and Gross, 2004a, 2007a, 264-67; Discovery Institute, n.d.). Charles Thaxton was among the "conference faculty" at the May 2006 "Worldview Super Conference" held by American Vision, one of the most extreme Reconstructionist groups (Forrest, 2007b; Sugg, 2006).

Similarly, CSC fellow Francis Beckwith has ties with another Religious Right organization. He serves on the summer conference faculty of Summit Ministries, which is headed by David Noebel, a former John Birch Society member who now specializes in anti-gay propaganda (Forrest, 2007b).

Johnson's, Thaxton's, and Beckwith's individual associations with Religious Right extremists appear to be an integral part of the execution of the Wedge Strategy. Several other of their key CSC colleagues have had similar involvements. In 2006, CSC fellows Michael Behe, Richard Weikart, and Jonathan Wells were featured as "experts" in an anti-evolution television program, *Darwin's Deadly Legacy*, produced by Christian Reconstructionist evangelist D. James

Kennedy (Coral Ridge Ministries, 2006a). (Phillip Johnson does not appear in the program but is included on the website's list of experts.) Kennedy is the founder of Coral Ridge Ministries and its affiliated Creation Studies Institute. In this "documentary," which was blasted by the Anti-Defamation League (Anti-Defamation League, 2006), Kennedy blames Charles Darwin for the Holocaust. Speaking as one of Kennedy's experts, historian Richard Weikart's comments reinforce this misconception: "Natural selection was the guiding idea for Hitler and the Nazis" (Coral Ridge Ministries, 2006b). Kennedy immediately follows Weikart's comments with a grossly mistaken summation of the supposed relationship between Darwin and the Holocaust: "To put it simply—no Darwin, no Hitler."

Weikart's comments are apparently based on his book, *From Darwin to Hitler* (Weikart, 2004). In a negative review of the book, political scientist Larry Arnhart notes that Weikart's title is misleading since he (admittedly) never establishes a direct link between Darwin and Hitler. Arnhart points out that "Weikart's book was financed by the Discovery Institute as part of their 'wedge strategy' for attacking Darwinian science. . . . The book is now . . . cited by proponents of creationism and intelligent design as scholarly proof that there is a direct line of influence 'from Darwin to Hitler'" (Arnhart, 2006). Historian Ann Taylor Allen echoes Arnhart's negative assessment: "[Weikart's] definition of 'Darwinism' is based not on the ideas of Darwin himself—which are never carefully analyzed—but on the reception of these ideas by a wide range of speakers. . . . This picture of the Holocaust as the outcome of a 'culture war' between religion and science leads to serious distortions on both sides. . . . Neither religion nor science is well served by this oversimplified view of their complex history" (Allen, 2006, 256-57).

Weikart's colleagues at the CSC have reinforced Weikart's slanted representation, as seen in this endorsement by Francis Beckwith, who repeats Kennedy's "no Darwin no Hitler" charge in the idiom of academic scholarship: "Richard Weikart's masterful work offers a compelling case that the eugenics movement, and all the political and social consequences that have flowed from it, would have been unlikely if not for the cultural elite's enthusiastic embracing of the Darwinian account of life, morality, and social institutions. Professor Weikart reminds us, with careful scholarship and circumspect argument, that the truth uttered by [conservative thinker] Richard Weaver decades ago is indeed a fixed axiom of human institutions: 'ideas have consequences.'" (Weikart website; see Weikart, 2004).⁵

Regardless of the uncertainty about the degree to which ID creationists share all of the views of their Religious Right partners, some important common threads unite them with these groups: rejection of the separation of church and state, and a desire to alter fundamentally the structure of American society, education, and government. Their goals betray a disregard for the religious freedom of their fellow citizens and the proper education of children.

Political support for ID

President Bush's support for teaching ID shows that the Discovery Institute has won high-level political backing for ID, an advantage that testifies to their success at public relations and politicking. The Wedge Document notes DI president Bruce Chapman's "long tenure in politics, journalism and public policy," giving him "rare knowledge and acquaintance of key oped writers, journalists, and political leaders" (Discovery Institute, 1998). Securing the political assistance that ID proponents need to carry out their political aims, such as that received from former Senator Rick Santorum, has been a central part of the Wedge Strategy since its inception. The ID movement currently enjoys open support for teaching ID from three state governors, as well as several U.S. senators and congressmen, in addition to numerous state legislators all over the country (Americans United for Separation of Church and State, 2006; Associated Press, 2005a; Karamargin, 2005; Forrest and Gross, 2004a, 2007a, 239-40; *Skeptical Inquirer*, 2000).

The Discovery Institute has capitalized on its national political ties. In 2000, Phillip Johnson gave two briefings on ID in Washington, DC, for congressional representatives, senators, and their staff. In 2005, DI opened its DC office: "The office has given Discovery a stronger voice 'inside the beltway' and has afforded us improved access to decision makers in policy and media circles" (Discovery Institute, 2006b, 1-2). The organization does not exactly have a tidal wave of supporters in Congress, but ID proponents are the first creationists to have cultivated such political influence at the national level, and they have managed a fair amount of mischief (e.g., the Santorum amendment) with their relative handful of supporters. The attractiveness of their propaganda to public officials who may not be aware of their larger agenda and their extremist alliances is all the more reason that their influence, however peripheral compared to the more important issues with which public officials are concerned, must be counteracted.

V. Kitzmiller et al v. Dover Area School District (2005)—and its aftermath.

In October 2004, the Dover (PA) Area School District Board of Directors adopted a resolution requiring that “Students will be made aware of gaps/problems in Darwin’s Theory [sic] and of other theories of evolution including, but not limited to, intelligent design.” In November 2004, the board adopted a policy requiring teachers to read a statement informing ninth-grade biology students that the theory of evolution “is not a fact,” that “intelligent design is an explanation of the origin of life that differs from Darwin’s view,” and that the ID creationist textbook, *Of Pandas and People*, was available to students interested in ID. In December 2004, eleven parents filed the nation’s first lawsuit contesting the teaching of ID (*Kitzmiller*, 2005, 12).

In his ruling on this case, Judge John E. Jones III, Middle District of Pennsylvania, recognized that ID is not science and “cannot uncouple itself from its creationist, and thus religious, antecedents” (*Kitzmiller*, 2005, 136). Accordingly, Jones ruled that the Dover “ID Policy violates the Establishment Clause of the First Amendment of the Constitution of the United States and . . . the Constitution of the Commonwealth of Pennsylvania” (*Kitzmiller*, 2005, 139). Although Judge Jones’s ruling technically applies only within the Middle District of Pennsylvania, his decision, notable for its incisiveness and comprehensiveness, has reverberated throughout the country. Less than two months after he filed it, the Ohio Board of Education, fearing a similar lawsuit, deleted an ID creationist lesson plan that board members had approved as the implementation of an Ohio science standards benchmark that was widely recognized as a loophole for ID (Rudoren, 2006).

Although the Dover ID policy was the fruit of the Discovery Institute’s own relentless promotion of ID, DI did not initiate the policy and urged the school board to withdraw it. DI feared a legal defeat, and, indeed, the school board’s loss in the *Kitzmiller* case was in reality a loss for the ID movement. Because of DI’s unwillingness to endorse the policy, the Dover school board was represented by the Thomas More Law Center rather than by DI lawyers. Several CSC fellows—William Dembski, Stephen C. Meyer, John Angus Campbell, Michael Behe, and Scott Minnich—did agree to serve as expert witnesses for the defense. However, unwilling to continue in the case without their own lawyers—and fearing cross-examination, Dembski, Meyer, and Campbell withdrew from the case prior to their depositions. Their exodus left Behe and Minnich as the only DI witnesses to defend the cause for which the Wedge Strategy had been so aggressively executed for thirteen years (Forrest, 2007a; Forrest and Gross, 2007a, 326-27).

Minnich’s testimony, like his membership in the ID movement, was generally low-key and unmemorable. Although Minnich is a microbiologist, Behe, a biochemist, was the defense’s “scientific” star.

Behe’s performance on the witness stand was not ID’s finest hour. One by one, his major contributions to ID’s purported scientific opus—the “irreducible complexity” of the bacterial flagellum, the blood-clotting cascade, and the vertebrate immune system—were dismantled under cross-examination by plaintiffs’ lead attorney Eric Rothschild. Aided by research done by staff at the National Center for Science Education (NCSE), who served as pro bono consultants for the plaintiffs, Rothschild exposed the hollowness of Behe’s scientific claims, as Behe’s fellow scientists have done so thoroughly over the last decade. In an article in *Nature*, scientists Matt Inlay and Andrea Bottaro and NCSE Public Information Project Director Nick Matzke recount Rothschild’s shredding of Behe’s claims about the irreducible complexity of the vertebrate immune system:

Behe’s antievolutionary argument relies on . . . “irreducible complexity”: the requirement for the presence of multiple components of certain complex systems . . . for the system to accomplish its function. As such irreducibly complex systems by definition work only when all components are present, Behe claims they cannot arise by the sequential addition and modification of individual elements from simpler pre-existing systems, thus defying . . . evolutionary explanations. . . .

In . . . *Darwin’s Black Box* [Behe’s 1996 book], Behe claims that the vertebrate . . . immune system fulfills the definition of irreducible complexity and . . . cannot have evolved. . . .

. . . During cross-examination by . . . Rothschild, Behe . . . [testified] that “the scientific literature has no detailed testable answers on how the immune system could have arisen by random mutation and natural selection.” Rothschild then presented Behe with . . . publications on immune system evolution, dating from 1971 to 2006, plus several books and textbook chapters. . . . Behe admitted he had not read many of the publications . . . , but summarily rejected them as unsatisfactory and dismissed the idea of doing research on the topic as “unfruitful” (Bottaro et al., 2006, 434).

Behe’s testimony during cross-examination was not helped by his admission that, under his definition of scientific theory, which must be somewhat flexible in order to accommodate ID, astrology also qualifies as science (*Kitzmilller*, 2005a, 38-39).

This courtroom scene epitomizes the manner in which Behe, the defense’s most important scientific witness, has defended ID during his decade-long role as the ID movement’s chief scientist: every one of his claims has been debunked by scientific experts who actually

conduct research in the fields about which he merely writes. The *Nature* article cited above highlights the current science showing that his claims about the irreducible complexity of the immune system are wrong; yet Behe simply ignores this science (Bottaro et al., 2006). His claim that the bacterial flagellum, the whip-like appendage that enables a bacterium to swim, cannot be the product of natural selection has been thoroughly and repeatedly debunked by *Kitzmiller* plaintiffs' expert witness and cell biologist Kenneth Miller (Miller, 1999), as well as by other scientists. Numerous critiques that are both scientifically accurate and accessible to the public are available on the Internet (Talkorigins.org, 2007; Talkreason.org, n.d.; see also note 2).

Post-Kitzmiller Wedge Strategy adjustments

While the *Kitzmiller* plaintiffs and the defense were awaiting Judge Jones's opinion after the trial ended on November 4, 2005, future setbacks for the ID movement were presaged by the defeat of all creationist school board members—a total of eight on the nine-member board—in the November 8 Dover, PA, school board election (Associated Press, 2005b). Since *Kitzmiller*, ID creationists have suffered additional defeats, most notably, as recounted earlier, in Kansas and Ohio. The Discovery Institute was also heavily invested in the Cobb Co., GA, case in which evolution disclaimer stickers that had been placed in science textbooks by the school board were declared unconstitutional and ordered removed by a federal judge (Discovery Institute, 2006a). Even after an appeals court remanded that decision back to the district court because of missing items in the record of the initial trial, the out-of-court settlement reached by the school board and plaintiffs' attorneys favored the plaintiffs: the stickers will not be replaced, and the school board has agreed to adopt no more policies that weaken the teaching of evolution (National Center for Science Education, 2006a).

Despite these major defeats, the ID movement is proceeding with its plans as though these legal and political setbacks had never happened. The Wedge, though badly blunted, is not broken. Like the rest of the Religious Right, ID creationists are continuing their efforts to breach both the wall of the public school and the wall separating church and state. Most CSC fellows are still relatively young, and several of the central figures—Dembski, Meyer, and West—have essentially invested their lives in the Wedge Strategy, unlike Behe, for example, who has a university teaching position in addition to promoting ID. However, like their creationist

forebears, ID proponents have been forced by their defeats to modify their strategy, a modification they are trying to effect chiefly by altering their terminology.

Even before *Kitzmiller*, with ID exposed as a new variant of creationism by a lengthening list of scholarly critiques, ID proponents had begun disguising their proposals to teach ID as, for example, proposals to teach “objective origins,” or to use the Discovery Institute’s favorite sound bite, to “teach the controversy” (Forrest and Gross, 2004b). They have a stock of euphemisms, or code terms, which they now substitute for “intelligent design,” some of which are listed below. These code terms are not new; creationists have used them for decades. Nor is this list exhaustive. But these are the most prominent ones, and supporters of proper science education and the separation of church and state must be able to recognize them. They are the terms in which post-*Kitzmiller* attempts to teach ID in public schools will now be disguised (Scott, 2006, 24-27). Several of them were used in bills introduced during the 2007 First Session of the State Legislature of New Mexico (Thomas, 2007).

“Teach the controversy.” In an effort to arouse skepticism regarding evolution as the natural process that has shaped Earth’s life forms, ID proponents falsely claim that there is a controversy within mainstream science regarding the status of evolutionary theory, which they claim is “in crisis,” a “dying theory” (Miller, 2001). Ostensibly intended to stimulate critical thinking by informing students of a raging disagreement among mainstream scientists, this ID slogan violates the most basic requirement of critical thinking: truthfulness. Productive debate about evolution would require, first, that there be a genuine controversy, and second, that all parties to the debate approach the discussion in good faith. ID proponents fail on both counts: (1) There is no controversy in the mainstream scientific community about either the fact of evolution or the major aspects of evolutionary theory. ID is simply perpetuating the cultural controversy surrounding evolution that dates back to the early 20th century. (2) ID proponents enter the debate with a religious agenda that they deny to mainstream audiences but discuss freely with their friendly religious audiences, knowing that their supporters—unlike unknowing potential opponents—will understand their code terms. This agenda and the religious essence of ID can quickly be discovered through even cursory research; critiques of ID have been widely published and discussed in the scholarly community and are readily available to interested, scientifically literate laypersons (see note 2). However, ID proponents know that most people are unfamiliar with this research, have little understanding of science, and can easily be convinced

that a controversy exists. Too many Americans, even those who are reasonably well educated, are susceptible to the appeal to basic fairness, i.e., to “present both sides” of the issue. But this issue cannot be divided into two, equally viable scientific viewpoints (Isaak, 2005). On one side is the well-established science of evolution, and on the other is the religious and cultural agenda of the Discovery Institute.

Teach the “full range of scientific views.” This is the most often-quoted code phrase from the revised Santorum amendment (see section IV). Although carrying no legal force, it has been used as the Discovery Institute intended: ID supporters nationwide have invoked it at school board meetings, and ID-friendly legislators have inserted it into proposed legislation. ID proponents and their supporters know that this seemingly innocuous phrase is meant to be interpreted as classifying ID along with evolution as a legitimate scientific view. It was used, for example, in proposed legislation in Oklahoma during the 2006 legislative session (National Center for Science Education, 2006b).

Critical analysis/critical thinking. Many state science standards include benchmarks requiring teachers to use lesson plans designed to stimulate critical thinking; this is a legitimate pedagogical goal. However, ID creationists—again, like earlier creationists (Bliss, 1976)—have co-opted critical thinking for their own purposes (Matzke and Gross, 2006). The essential foundation of critical thinking, along with the ability to distinguish truth from falsehood, is a *commitment* to telling the truth. Children must be told the truth about science. Teaching them that ID is a viable scientific alternative to evolution is false. Doing so will stifle rather than foster the development of critical thinking skills.

The “strengths and weaknesses/evidence for and against” evolution. Although this has been standard creationist terminology for decades, it is now an often-used ID mantra. (For an example of how the Discovery Institute is reviving this old rhetorical technique, see Witt, 2005.) ID creationists have no empirical data to support ID. Like earlier creationists, they have established a false dichotomy between evolution on one hand and ID on the other, betting that if they can sufficiently discredit evolution, ID will be seen by potential supporters as more credible by default. Not only is this a classic case of fallacious reasoning, but the courts have long recognized it as a creationist ploy. Judge Overton in *McLean* (1982) termed this maneuver a “contrived dualism.” Yet, lacking empirical data for ID, it is the only argument ID proponents have that even resembles a substantive case for their pseudoscience. Since *Epperson* (1968)

prohibits banning evolution from public schools and *Edwards* (1987) prohibits equal time for creationism, ID proponents must resort to attacking evolution. But their creationist ancestors invented this trick prior to *Edwards*: “Scientific creationists . . . think that evolution should be taught, but only when the strengths and weaknesses are discussed in comparison with the scientific merits of creation” (Bliss, 1983).

Academic freedom. The Discovery Institute recently announced that “we have entered a new front in the debate over intelligent design—the need to protect academic freedom, particularly on college campuses” (Discovery Institute, 2006b, 2). Unfortunately for the ID movement, the academic freedom “front” is not new at all; Henry Morris, deceased founder of the YEC Institute for Creation Research, used the same tactic more than thirty years ago (Morris, 1975). ID proponents try to frame teaching ID as an academic freedom issue in an attempt to avoid having it challenged legally—and properly—as a violation of the religious establishment clause of the First Amendment (West, 2005). But teaching ID—under any of its various guises—is not about academic freedom; rather, in addition to being an issue of religious establishment, it is about professional competence and ethics. Given the 150 years during which the theory of evolution has withstood the most rigorous scientific testing and the past decade of expert analysis of ID by scientists, philosophers, and other scholars, no science teacher has any reason to remain uninformed about this issue. Consequently, there are only two explanations for a teacher’s telling students that ID is science: the teacher either has been improperly trained to teach science or is deliberately misleading students. Neither should be the case in any classroom.

What is truly ironic about the ID movement’s adoption of such sanitized terminology is that they have done so in an attempt to obscure the clearly religious nature of “intelligent design,” while at the same time their advertisement of ID as integral to Christianity grows ever more obvious. In November 2006, CSC fellows Walter Bradley and Paul Nelson, with long-time supporter Tom Woodward, were the main speakers at the “Evidence of Design Conference” held at two Florida churches (a much-used ID venue). Under the heading “Apologetics Events in the U.S. and Beyond,” the conference was advertised as an event that “will enable Christians . . . to demonstrate there is in fact a designer of life and that he is Jesus Christ” (Apologetics.org, 2006).

“The Biologic Institute”

The most stinging truth with which ID creationists have been confronted by their critics is ID’s scientific sterility. Having made “theistic realism” the “defining concept” of their movement, according to Phillip Johnson’s definition, which requires that “God is objectively real as Creator,” they consequently have no scientific, i.e., empirical, methodology that will yield data establishing that “the reality of God is tangibly recorded in evidence accessible to science, particularly in biology” (quoted in Forrest, 2005a, 31). Of the relatively few ID proponents who actually earn their living as scientists—Behe being the most prominent example—*not a single one* uses ID as a guiding scientific theory in his professional scientific work. But faced with a potential loss of funding and political support in the wake of their *Kitzmiller* defeat, the ID movement, like other creationist groups such as the Institute for Creation Research and the Creation Research Society (Institute for Creation Research, 2007; Creation Research Society, 2007), has established a research center.

The “Biologic Institute” (BI) was briefly announced in an August 2005 *New York Times* article (Chang, 2005). Douglas Axe, a molecular biologist named in the Wedge Document as head of the CSC’s molecular biology program, revealed that the Discovery Institute had provided “significant” financing. Axe’s revelation was opportunely timed: the article appeared one month before the *Kitzmiller* trial began, at the time of the ID movement’s greatest need to create the appearance of scientific authenticity. A CSC fellow from roughly 1998-2000, Axe until recently conducted legitimate scientific research in England, also with Discovery Institute funding. He published two articles (2000 and 2004) in the *Journal of Molecular Biology* (Forrest and Gross, 2004a, 2007a, 40-42, 127; Biever, 2006). However, the Discovery Institute never announced BI’s existence on its website.

At the end of May 2007, when this position paper was first published, there was still no phone listing. As of July 2007, the BI has posted a website with a phone number and a physical address in Redmond, WA (but no other information on the otherwise incomplete website) (Biologic Institute, 2007). The website cannot be detected by online search engines (only the precise URL takes one to the website.) The phone number continues to be unavailable through directory assistance, and a Google search using the number as a search term reveals only that it is an unlisted landline. The number is registered to the Biologic Institute (US Search, 2007), but to a location in Seattle rather than Redmond (there is a facility in the Fremont section of Seattle; see

below). The facility's existence was questionable until Barbara Forrest discovered that it had been incorporated in the state of Washington in October 2005 (*after* the *NYT* article appeared), although no physical address was listed in the incorporation data (Washington State, n.d.). Public confirmation of BI's existence, when it came, was not the Discovery Institute's decision. A *New Scientist* reporter located BI's offices in Redmond, WA, and a laboratory in Fremont (a Seattle neighborhood) (Biever, 2006). Except for one staffer, George Weber (who left BI after being interviewed), no one would speak with the reporter, who had the door slammed in her face at the Redmond office. (Weber runs the Spokane, WA, chapter of Reasons to Believe, a creationist organization [Biever, 2006]). Such behavior is inconsistent with the practices of mainstream scientists, who are usually eager to share their data with interested journalists.

Discovery Institute had no choice except to appear overjoyed at the involuntary publicity, affirming that "researchers at the new Institute are serious scientists with impressive research records" (Discovery Institute, 2006c). However, the boasting is a bit premature and not entirely accurate. Axe's two *JMB* articles in no way support ID in the judgment of competent mainstream scientists (Inlay, 2005; Hunt, 2007; Forrest and Gross, 2004a, 2007a, 40-42, 127). Axe himself has seemed of two minds on this question. In 2000, he declined to confirm or deny that his science supports ID (Forrest and Gross, 2004a, 2007a, 42). Now he contends that it does (West, 2007). Responding to the *New Scientist* article, Axe and his lab colleagues, Ann Gauger and Brendan Dixon, asserted that "Researchers at the Biologic Institute are convinced that [the theory of intelligent design can lead to good science]" (Axe et al., 2007). But Gauger and Dixon have not been terribly productive, even though Gauger has a Ph.D. in zoology. A May 2007 search of scientific databases for peer-reviewed articles by Gauger, a signatory to the Discovery Institute's list of scientists who "dissent from Darwinism" (Discovery Institute, 2007), yielded only three identifiable articles, written in 1985, 1987, and 1993, all outdated by scientific standards (Gauger et al., 1985; Gauger et al., 1987; Gauger and Goldstein, 1993). A search of both scientific and computer science databases yielded no scholarly articles by Brendan Dixon, a software developer.

Should BI produce any genuine science, it will not establish ID's credibility any more than ICR and CRS have established the credibility of young-earth creationism; both ID and YEC rest on belief in a supernatural creator, which is unsusceptible to confirmation by any amount of empirical data. If ID proponents' promise of scientific productivity had been serious, they would

have established BI in 1992, when they first began executing their strategy. They would consequently have at least some record of effort, even if it were nothing more than confirming the arguments of their critics that the activity of a supernatural designer lies beyond the scope of science. Behe, as a practicing scientist, could be doing this work himself; instead, he writes books and articles for the popular audience. The eleventh-hour establishment of BI in 2005 after thirteen years of the Wedge Strategy can only be understood as an attempt to shore up the loyalty of the ID movement's support base and maintain the flow of donor funding in the wake of the *Kitzmiller* defeat. It will also provide a new talking point for their supporters' arguments to their local school boards that teaching ID, perhaps disguised as teaching "the strengths and weaknesses of evolution," belongs in public schools.

Additional ID projects

The Wedge Document calls for the establishment of an ID following "in Israel, the UK, and other influential countries outside the US," and internationalization has taken on new urgency for ID proponents in the wake of *Kitzmiller*. An increasing volume of press coverage is emanating from the UK regarding the emergence there of an unsuspected level of popular support for creationism. The Royal Society has found the problem sufficiently troubling to issue a formal statement about it (Royal Society, 2006). Reports of growing support for creationism emerge almost weekly from eastern and western European countries that previously considered themselves immune to this problem (Graebisch and Schiermeier, 2006; Forrest and Gross, 2007b, 337).

More ID books are being aimed at a scientifically uninformed American public. Michael Behe's *The Edge of Evolution: The Search for the Limits of Darwinism*, promises to "[fit] design theory together with the findings of cosmology, chemistry, and physics into an overarching theory of the universe; and [lay] out a research program, with predictions, to counter the failed predictions of Darwin's enthusiasts" (Behe, 2007). William Dembski and Jonathan Wells's *The Design of Life: Discovering Signs of Intelligence in Biological Systems* will replace *Of Pandas and People* for the high school audience (Dembski and Wells, 2007). (Despite being exposed as a creationist textbook at the *Kitzmiller* trial (Forrest, 2005b), *Pandas* is still being sold by the Foundation for Thought and Ethics as the book that "has improved the way origins is taught in thousands of public school classrooms." [Foundation for Thought and Ethics, n.d.]

The Discovery Institute is also promoting another new ID textbook, thinly disguised using the now-familiar ID code terms and aimed at students from ninth grade through college. The book is even subtitled in ID code—*Explore Evolution: The Arguments for and Against Neo-Darwinism* (Meyer et al., 2007). Co-authored by ID leaders Stephen C. Meyer, Scott Minnich, and Paul Nelson, along with former CSC fellow Jonathan Moneymaker and ID supporter Ralph Seelke, it is being advertised, like *Pandas*, as a “supplemental textbook” for public school teachers. Moreover, it can be used with DI’s “new supplemental biology curriculum,” the auxiliary materials for which were written by CSC senior fellow Michael Newton Keas (Forrest and Gross, 2004a, 2007a, 164-165). At this writing in July 2007, promotional information about the book and the curriculum is posted on the website of Biola University’s M.A. in Science and Religion program, along with an invitation to science teachers (and the public) to attend an August 2007 “Science Teachers Symposium” entitled “Teaching Biological Origins.” (Biola employs several CSC fellows as faculty.) *Explore Evolution* is being billed as a new text that “delivers critical thinking at its best.” ID creationist Jonathan Wells, along with other ID supporters, is listed as a featured speaker. Reflecting the Wedge Strategy goal to “replace materialistic explanations with the theistic understanding that nature and human beings are created by God,” the religious rationale for this symposium is evident in the topic of one of the breakout sessions: “thinking critically about the materialistic assumptions of science textbooks.” Public school teachers are singled out for special reassurance that this symposium will enable them to “fulfill governmental educational mandates concerning controversial topics in the biology classroom.” They are assured that “educational standards in both the US and the UK . . . clearly state that the curriculum should help students to understand the full range of views that exist and why such topics may generate controversy” (Biola, 2007). This assurance is phrased in the exact wording of the Santorum amendment, but the insinuation that the Santorum amendment is a government mandate is false (Forrest and Gross, 2004a, 2007a, 240-252).

Such ID publications and promotional activities will necessitate the expenditure of yet more time and energy to protect public school science curricula. Defenders of science and the separation of church and state, who have already devoted untold amounts of personal time and resources to keeping ID out of American public schools, have so far been successful in all of the major ID outbreaks. Pro-science organizations such as Kansas Citizens for Science now exist in

at least a dozen states. Unfortunately, they cannot afford to relax their efforts for the foreseeable future.

VI. Conclusion.

As this paper demonstrates, the ID movement is nothing more than barely camouflaged creationism. Seeking to convince the public that ID is something different, ID proponents avoid open debate on the least defensible elements of earlier creationism such as the young age of the earth and “flood geology” based on the biblical story of Noah’s flood. Their attempt to manufacture a “scientific” controversy and their sanitizing of ID terminology reflect their effort to tailor their strategy to the current legal landscape and to the current attitudes of the American public. Hoping to appeal to Americans’ instinctive notions of fairness, which would allow “both sides” to be heard, ID creationists have tried to exploit this alleged scientific controversy by pushing public schools to “teach the controversy” or “teach the full range of scientific views.”

However, the only real controversy is the one that the ID creationists have fabricated for the precise purpose of advancing their agenda. There is no legitimate scientific debate between ID and evolution, and there is no controversy within the scientific community concerning the status of evolutionary theory. Accordingly, we recommend that educators, local and state boards of education, and all responsible government officials at every level reject any attempt to insert ID into the classroom, whether by expressly teaching ID or by more subtle means, such as “disclaimers” read in biology classes, stickers placed in biology textbooks, or euphemistic proposals to teach the “strengths and weaknesses of evolution,” etc. Because ID is a religious belief, allowing it to be inserted into the public school science classroom violates the constitutionally protected separation of church and state. Just as significantly, introducing ID into the classroom is detrimental to the teaching of real science. The methodology of modern science has consistently produced notable scientific achievements for more than three centuries. To ensure that American scientific progress continues—especially if American students are to contribute to it as scientists—we must ensure that our children have a proper understanding of science.

We should not exaggerate the threat posed by the ID creationist movement. As the *Kitzmiller* case and ID’s defeats in Kansas and Ohio have demonstrated, concerned scientists and

laypersons—with the law and good science on their side—can protect both the Constitution and science education (Forrest and Gross, 2007a, 318-21). But we certainly must not discount this threat. Given the strong anti-Enlightenment sentiments of ID proponents and their alliances with other groups, some of which are extremist, ID poses a danger to constitutional government and, by extension, to a free, open society. ID proponents and their Religious Right allies promote a distorted understanding of secularism, presenting it as synonymous with atheism and antireligious animosity. However, contrary to this misconception, “secular,” properly understood, merely means “not religious” rather than “anti-religious.” In the same vein, criticism of ID as a religious belief rather than a scientific theory is not criticism of religion per se. To reject secularism as the Religious Right does, based on their distortion of its meaning, is to reject one of the First Amendment’s most important protections: the right to live and work without being constrained by religious doctrines not of one’s choosing; and to worship, or not worship, as suits one’s conscience. This right implies the attendant obligation to refrain from requiring that others be constrained by one’s personal religious preferences (Forrest, 2004).

Yet ID creationists, as well as the Religious Right generally, seek to convert their personal religious commitments into public policy. In their minds, merely refraining from including creationism and other examples of their favored views in public school classrooms constitutes active discrimination against religious people. This position is not only illogical, but it is not shared by the vast majority of Americans, who understand that the strongest protection for people of faith lies precisely in maintaining government neutrality with respect to matters of religion. Only when the government refuses to promote or endorse religious beliefs (or antireligious beliefs) can we achieve the freedom necessary for both religion and civic friendship to flourish and for rational inquiry to guide the development of public policy. Yet this is precisely what ID proponents are unwilling to countenance. While they benefit from living in a secular democracy, they would use its gifts of free expression and personal freedom to force American culture, science, and education backward into a pre-modern era.

Civic friendship means, at the very least, being reasonable enough and respectful enough of one’s fellow citizens to trust that they can be good people—good neighbors—without adopting one’s own religious views, or perhaps without any religious views at all. The hope of civic friendship is among the central legacies of the Enlightenment, along with tolerance of

religious diversity and the confidence that embracing modern science and rational inquiry does not destroy, but rather strengthens, the moral bearings of one's fellow citizens. In "Public Reason and Democracy: The Place of Science in Maintaining Civic Friendship," political scientist Steven M. DeLue expresses this hope beautifully (DeLue, 2005, 26, 38-39):

The . . . Enlightenment embodied the hope of establishing governments that freed people from superstition and tradition, so that people could use reason and science to generate knowledge useful in improving society. . . .

. . . [S]ince the Enlightenment, our modern world has been characterized by a public culture, which holds as primary beliefs the . . . views that rational intelligence must be used both to make it possible for science to produce knowledge and to ensure that this knowledge serves only humane purposes. Moreover, it is understood that society can achieve these goals, and attain the flourishing that results, only when it allows intellectual autonomy to manifest itself fully across the social and the public realms. Thus, attaining the degree of civic friendship needed to maintain the stability of a liberal democracy . . . depends on the extent to which science is understood as necessary for progress in all dimensions of life. When this understanding is strong, then there would be an overwhelming respect for the public culture of civic friendship that sustains autonomy and its associated virtues—freedom, critical thinking, intellectual pluralism, and the civic virtue of toleration.

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Endnotes

1. "Apologetics" is "the branch of theology that is concerned with the defense of Christian doctrines" (Webster's Online Dictionary at <http://www.websters-online-dictionary.org/definition/apologetics>. Accessed 4 February 2007.)
2. In addition to numerous books about ID, readers may consult a number of Internet sites for critical reviews of ID books and original articles dealing with all aspects of ID. The most well-known are Talkorigins.org (<http://www.talkorigins.org/>), Talkdesign.org (<http://www.talkdesign.org/>), Talkreason.org (<http://www.talkreason.org/>), and the *Panda's Thumb* weblog (<http://www.pandasthumb.org/>). The National Center for Science Education is also a repository of ID news and related literature (<http://www.ncseweb.org/>).
3. In November 2005, in addition to diluting the coverage of evolution in Kansas science standards, ID creationists changed the definition of science in the standards to permit inclusion

of the supernatural as a “more adequate” explanation of natural phenomena; science was redefined as “a systematic method of continuing investigation that uses observations, hypothesis testing, measurement, experimentation, logical argument and theory building to lead to more adequate explanations of natural phenomena” (Forrest and Gross, 2007a, 318). In the November 2006 election, control of the Kansas Board of Education reverted to pro-science moderates. In February 2007, the new board adopted sound science standards that present evolution properly (National Center for Science Education, 2007).

4. The word “renewal” has obvious religious associations, as stated in the Wedge Document:

Spiritual & cultural renewal:

- Mainline renewal movements begin to appropriate insights from design theory, and to repudiate theologies influenced by materialism
- Major Christian denomination(s) defend(s) traditional doctrine of creation & repudiate(s) Darwinism
- Seminaries increasingly recognize & repudiate naturalistic presuppositions
- Positive uptake in public opinion polls on issues such as sexuality, abortion and belief in God (Discovery Institute, 1998)

5. See the Appendix, added in July 2007. I have also amended my text to include the additional sentence in Dr. Beckwith’s endorsement, thus reproducing the complete endorsement, which can be found at <http://web.csustan.edu/History/Faculty/Weikart/FromDarwintoHitler.htm>.

APPENDIX

In a July 5, 2007, e-mail, Dr. Beckwith disputes the accuracy of my understanding his endorsement of Weikart's book to be effectively a restatement of Kennedy's charge, "no Darwin, no Hitler," albeit in different language. (I did not attribute Kennedy's wording to Beckwith.) His objection to my reading of his endorsement has two parts: (1) that he did not assert that Hitler as a historical figure was "entailed" by Darwin, which, he says, is what "no Darwin, no Hitler" means, and (2) that his reference to the eugenics movement was not a reference to Hitler, but to the movement that produced the 1927 U.S. Supreme Court ruling, *Buck v. Bell*. However, my reading of Dr. Beckwith's endorsement of Weikart's book is reasonable given the case Weikart actually makes. I respond to each of Dr. Beckwith's objections in turn.

The first part of Dr. Beckwith's objection to my reading of his endorsement concerns what Kennedy meant. He says that Kennedy's "no Darwin, no Hitler" assertion means that Hitler was "entailed" by Darwin the historical person, and Dr. Beckwith disavows this meaning. There are two ways to understand "entail" in this context: (1) "Of premises: To involve logically, necessitate (a particular conclusion)," or (2) "To bring on by way of necessary consequence" (*Oxford English Dictionary*). If Dr. Beckwith, in his objection, intends the first sense of entailment, this is not a sound objection as this reading of Kennedy makes no logical sense. Entailment is a logical relationship between propositions and concepts, not people. If Dr. Beckwith is using "entail" in the second sense, one can understand Kennedy as meaning that if Darwin had not existed, Hitler would not have committed his atrocities because there would have been no theory of evolution by natural selection to influence Hitler. Yet even if this is Kennedy's meaning, it is obviously Darwin's theory that allegedly had the causal connection with Nazi ideology and Nazi atrocities, not Darwin the man. Kennedy's antipathy to evolution is well known; it is Darwin's scientific theory, not his historical existence, to which he objects, as *Darwin's Deadly Legacy* made very clear. At any rate, it makes sense to understand Kennedy as meaning *at least* that if Darwin had not developed his theory of evolution by natural selection, Hitler, guided by this theory, would not have committed his atrocities. To determine whether it is accurate to understand Dr. Beckwith's endorsement of Weikart's book as reiterating the causal connection that Kennedy made, i.e., that without Darwin's theory, there would have been no Nazi ideology and no Nazi atrocities, one must examine the content of Weikart's book, a subject to which I will now turn.

As indicated, Dr. Beckwith's second objection concerns what he says that he meant in his endorsement of Weikart's book. He says that he was referring to the eugenics movement that produced the 1927 *Buck v. Bell* Supreme Court opinion, which influenced public policy in the United States and Europe. By "cultural elite," he says that he meant figures such as George Bernard Shaw and Alexander Graham Bell, and institutions such as the Carnegie Institute and the Rockefeller Foundation, all of which supported eugenics. However, one typically, and quite reasonably, understands an endorsement as reflecting the content of the book that is endorsed; therefore, the reasonable way to understand what Beckwith meant is to examine the case that Weikart actually makes, since it is *Weikart's* case that Dr. Beckwith calls masterful and compelling.

Under Dr. Beckwith's clarification of his endorsement, one would understand him to mean that Weikart offers a compelling case that if organizations such as the Carnegie Institute and the Rockefeller Institute, along with literary and scientific figures such as Shaw and Bell, had not endorsed the "Darwinian account of life, morality, and social institutions," then the

American eugenics movement, supported by the U.S. Supreme Court's 1927 *Buck v. Bell* decision, and the political and social consequences of that movement, probably would not have developed. However, while the eugenics movement in America is rightly condemned and certainly could be discussed as a corollary to Weikart's book, this is not the book Weikart wrote and that Dr. Beckwith endorsed. Weikart's full title, *From Darwin to Hitler: Evolutionary Ethics, Eugenics, and Racism in Germany*, makes it clear that Weikart is focusing on developments in Germany, not the United States. Weikart mentions developments in the U.S. only briefly and in passing. He does not discuss *Buck v. Bell*, and he does not discuss the people and institutions Dr. Beckwith has specified as those he intended in his endorsement. My reading of Dr. Beckwith's endorsement reflects the content of the book he endorsed, which explicitly concerns the *German* eugenics movement and its support by the *German* cultural and intellectual elite.

So, what is the case that Dr. Beckwith has endorsed as compelling? Weikart himself makes his case very plainly. Despite Weikart's assertion that he does not lay the blame for what Hitler did exclusively on Darwin's work, Weikart makes it very clear, beginning with the introduction, that Darwin is the true villain of the book. He opens with the observation that "A good deal of the initial resistance to Darwinism sprang from a perceived threat to the moral order" and that "Adam Sedgwick, Darwin's former mentor . . . was not the only one to accuse Darwin of undermining morality" (1; all references are to pages in Weikart's book). This undermining of morality, according to Weikart, culminated in the tragic events in Germany. Despite his frequent hedges against making "Darwinism" the sole cause of Hitler's atrocities, he invariably follows his hedges with statements indicating that he considers Darwin's work to have been a crucial factor: "No matter how crooked the road was from Darwin to Hitler, clearly Darwinism and eugenics smoothed the path for Nazi ideology, especially for the Nazi stress on expansion, war, racial struggle, and racial extermination" (6). By "Darwinism," he means the theory of evolution by natural selection: "What really concerns me in this work . . . is not so much Hitler, but Darwinism, especially the implications of Darwinism for ethics and for our understanding of human life and death. When I use the term Darwinism in this study, I mean the theory of evolution through natural selection as advanced by Darwin in *The Origin of Species*" (9).

While rightly disavowing the "absurd claim" that Darwinism leads to Nazism "of logical necessity," Weikart considers Darwinism "a necessary, but not a sufficient, cause for Nazi ideology" (9). This means that, although Darwin's work did not guarantee the development of Nazism, nonetheless, *without* Darwin's theory of evolution by natural selection, Nazi ideology could not have developed—and it is not a stretch to see the further conclusion here that without Nazi ideology, there would have been no Nazi atrocities. Among Weikart's major points is that "Darwinism altered conceptions of human nature and the value of human life, which had far-reaching ethical (and political and social) implications" (16).

Weikart also explicitly states in his text that he limits his discussion of eugenics and related developments to Germany: "I will focus primarily on Darwinian influence on eugenics, euthanasia, racial theory, and militarism in Germany" (9). The "elites" to which he refers are Germans; although he briefly refers to other Europeans and Americans, their importance in his book is negligible:

[M]any recent studies about Nazi science, especially those relating to biology, medical science, and eugenics, demonstrate that many mainstream scientists, professors, and

physicians . . . upheld views about Darwinism and eugenics quite similar to Hitler's. . . . My study will demonstrate that many of Hitler's ideas derived ultimately from respectable scientists and scholars who were grappling with the implications of Darwinism for ethics and society (though Hitler probably imbibed them mostly second or third hand). These included not only prominent scientists and physicians, but also professors of philosophy, economics, and geography" (8).

He is very clear in the concluding chapter that his concern is with why the *German* elite class cooperated with Hitler and with what led Hitler to undertake the atrocities he carried out, and Weikart's final comments point squarely to "Darwinism":

Another reason this study is so important is because it gives further insight into the roots of Hitler's worldview and his genocidal mentality. It also helps explain why so many educated Germans would cooperate with the Nazis and participate in the Holocaust, including many medical personnel. When he embraced eugenics, involuntary euthanasia for the handicapped, and racial extermination, Hitler was drawing on ideas that were circulating widely among the educated elites. Klaus Fischer has rightly stated, "Adolf Hitler's racial image of the world was not simply the product of his own delusion but the result of the finds of 'respectable' science in Germany and in other parts of the world, including the United States." These ideas were not dominant in German society, but they were reputable and mainstream in scholarly circles, especially among the medical and scientific elites. (232)

Weikart's closing statements restate his case succinctly:

Darwinism by itself did not produce the Holocaust, *but without Darwinism, especially in its social Darwinist and eugenics permutations, neither Hitler nor his Nazi followers would have had the necessary scientific underpinnings to convince themselves and their collaborators that one of the world's greatest atrocities was really morally praiseworthy.* Darwinism—or at least some naturalistic interpretations of Darwinism—succeeded in turning morality on its head. (233) (emphasis added)

This is a plain statement that without "Darwinism," i.e., Darwin's theory of evolution by natural selection, an essential part of Hitler's rationale for his atrocities would have been missing. It is not a strained reading of this book to see that Weikart conveys much the same message that Kennedy made more simplistically in his documentary. Since this is the case that Weikart makes in *From Darwin to Hitler*, it is consequently the case that Dr. Beckwith has endorsed as compelling. Since this is the book Weikart wrote, and the book Dr. Beckwith endorsed, my reading of his endorsement is therefore a reasonable one.

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