

**IN THE UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF PENNSYLVANIA**

TAMMY J. KITZMILLER, <i>et al.</i>	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Civil Action No. 4:04-CV-2688
	)	
DOVER AREA SCHOOL,	)	Hon. John E. Jones, III
DISTRICT and DOVER AREA	)	
SCHOOL DISTRICT BOARD OF	)	(Filed Electronically)
DIRECTORS,	)	
	)	
Defendants.	)	

**BRIEF OF AMICUS CURIAE
THE FOUNDATION FOR THOUGHT AND ETHICS**

Leonard G. Brown, III, Esq.
Pa. ID No. 83206
Randall L. Wenger, Esq.
Pa. ID No. 86537
CLYMER & MUSSER, P.C.
23 North Lime Street
Lancaster, PA 17602
(717) 299-7101

Jeffrey C. Mateer
Texas State Bar No. 13185320
MATEER & SHAFFER, L.L.P.
1300 Republic Center
325 N. St. Paul Street
Dallas, Texas 75201
(214) 720-9900

Attorneys for The Foundation
for Thought and Ethics

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SUMMARY OF ARGUMENT

Plaintiffs attack the theory of intelligent design as a form of creationism, and urge this Court to proscribe even its mention in public school science classes. They do so based in part on a false characterization of the early intelligent design textbook *Of Pandas and People* (“*Pandas*”), which has been designated as a resource for students in the Dover Area School District. Plaintiffs’ claims against *Pandas* rest on (1) a false equivalence of intelligent design and “creationism”; (2) a reliance on the *post hoc, ergo propter hoc* fallacy, assuming that because *Pandas* followed *Edwards* it was a result of it; and (3) an abandonment of ordinary textual interpretation in favor of language that was abandoned in the final draft of the book. Moreover, the fixation on *Pandas* ignores the rapid progress in the scholarship of intelligent design theorists since its publication.

First, intelligent design, as presented in *Pandas*, differs from “creationism” in methodology and propositional content. With regard to methodology, courts have recognized that creationism bases its claims upon faith, doctrine, or religious scripture. Yet *Pandas* offers a scientific theory of intelligent design which makes its claims based on empirical evidence and scientific methods. With regard to propositional content, the Supreme Court has recognized that creationism entails religious beliefs in a “supernatural creator.” Yet *Pandas* advocates a theory of intelligent design which is conceptually distinct from creationism in that it does not

address religious questions such as the identity of the designer, nor does it speculate about the existence of a supernatural creator. *Pandas*' claims are empirically based and do not go beyond what can be inferred through scientific investigation.

Second, plaintiffs present a misleading portrait of the historical record by suggesting that the scientific debate over design in nature originated with Biblical "creationism" or as an effort to circumvent the ruling in *Edwards v. Aguillard*. The debate over whether design is empirically detectable began with ancient Greek and Roman philosophers. Moreover, scientists and natural philosophers contemporary with Darwin debated whether nature displays evidence of design. Instead of being considered the descendant of twentieth-century Biblical "creationism," the current theory of "intelligent design" is most accurately understood as the revival and extension of a longstanding intellectual tradition within Western science and natural philosophy.

Third, plaintiffs place inappropriate reliance on what they claim is creationist language in early drafts of *Pandas* to establish the "true meaning" of the book. With regard to this case, only actions of the school board or perceptions of the students are relevant to the constitutionality of the school board's policy, and pre-publication drafts of *Pandas* are irrelevant to either question. Additionally, early drafts of *Pandas* which used the term "creation" made clear that "there is no

basis in uniform experience for going from nature to the supernatural.” *Pandas* authors eventually concluded that the term “creation” did not accurately convey their meaning, and therefore utilized the term, “intelligent design,” that did.

Finally, Amicus observes that the modern theory of intelligent design does not rely upon *Pandas* as authoritative. Written on a high school level and published in its first edition more than 15 years ago, *Pandas* has been superseded by a host of significant academic monographs and science journal articles explicating the contemporary theory of intelligent design. Accordingly, the substantive content of intelligent design today should be ascertained primarily through the scholarship produced by scientists and other scholars supportive of intelligent design, not the content of an early textbook, or its unpublished drafts.

INTEREST OF AMICUS CURIAE

The Foundation for Thought and Ethics (FTE) is a non-profit corporation responsible for a seminal work on intelligent design, *The Mystery of Life's Origin* (1984). FTE publishes and owns the intellectual property rights to *Of Pandas and People*, the textbook which has been a focus of this litigation.

ARGUMENT AND AUTHORITIES

I. INTELLIGENT DESIGN, AS DESCRIBED IN *PANDAS*, DIFFERS FROM CREATIONISM IN BOTH METHODOLOGY AND PROPOSITIONAL CONTENT.

A. Intelligent Design, As Described In *Pandas*, Bases Its Claims On Empirical Evidence And Scientific Methods Rather Than Upon Faith, Doctrine, Or Scripture.

Creationism is identified by its reliance upon religious scripture and doctrine, rather than empirical evidence.¹ By contrast, the theory of intelligent design, as developed in *Pandas*, relies upon scientific data and does not address religious or doctrinal questions.² *Pandas* infers design using observations, uniform experience, and empirical experimental evidence:³

If experience has shown that a certain class of phenomena results from intelligent causes and then we encounter something new but similar, we conclude its origin also to be from an intelligent cause.⁴

¹ *Edwards v. Aguillard*, 482 U.S. 578, 604 n. 4 (1987) (Powell, J., and O'Connor, J., concurring) (citing *McLean v. Arkansas Board of Education*, 529 F.Supp. 1255, 1265 (E.D. Ark. 1982)).

² Percival Davis, Dean H. Kenyon, and Charles B. Thaxton, *Of Pandas and People* viii (2nd Ed., 1993). All subsequent references to second edition of *Of Pandas and People* will simply refer to *Pandas*. For ease of reference, full quotations are provided in Appendices A-D. See Appendix A, Quote A.

³ “On the other hand, the experimental work on the origin of life and the molecular biology of living cells is consistent with the hypothesis of intelligent design. What makes this interpretation so compelling is the amazing correlation between the structure of informational molecules (DNA, protein) and our universal experience that such sequences are the result of intelligent causes.” *Pandas* 58.

⁴ *Pandas* ix. See also *Pandas*, page 58; Appendix A, Quotes D-F.

Pandas consistently takes this empirical approach and nowhere relies upon faith, doctrine, or religious scripture.

B. Intelligent Design, As Described In *Pandas*, Is Distinct From Creationism Because It Does Not Use Science To Postulate A “Supernatural Creator,” Nor Does It Attempt To Validate The Biblical Account In Genesis.

Plaintiffs contend that teaching intelligent design endorses religion. The endorsement test, as adopted by the Supreme Court, employs an objective component where a statement cannot be taken in isolation but must be read in its entire context:

The meaning of a statement to its audience depends both on the intention of the speaker and on the "objective" meaning of the statement in the community. Some listeners need not rely solely on the words themselves in discerning the speaker's intent: they can judge the intent by, for example, *examining the context of the statement* or asking questions of the speaker.⁵

Plaintiffs ignore the context in *Pandas* explaining how intelligent design cannot identify the designer as well as *Pandas*' emphasis on empirical data.

1. *Pandas* Demonstrates That Intelligent Design Takes A Scientific Approach Which Cannot Identify The Designer.

In *Edwards*, the Supreme Court held that creation science entailed the “religious viewpoint” that “a supernatural creator was responsible for the creation of humankind.”⁶ Plaintiffs try to force the square peg of design into the round hole

⁵ *Lynch v. Donnelly*, 465 U.S. 668, 690 (1984) (O'Connor, J., concurring).

⁶ *Edwards*, 482 U.S. 578, 592 (1987).

carved by *Edwards*, falsely asserting that *Pandas* postulates a “supernatural entity.”⁷ Yet *Pandas* clearly states that the scientific theory of intelligent design cannot address questions about the ultimate nature of the intelligent cause:

But what kind of intelligent agent was it? On its own, science cannot answer this question; it must leave it to religion and philosophy.⁸

We should recognize, however, that if we go further, and conclude that the intelligence responsible for biological origins is outside the universe (supernatural) or within it, we do so without the help of science.⁹

Because it does not delve into questions surrounding the supernatural, *Pandas* does not violate methodological naturalism (as espoused by plaintiffs).

Moreover, the *Pandas* edition used in Dover explicitly disclaims endorsement of Christianity:

Advocates of design have included not only Christians and other religious theists, but pantheists, Greek and Enlightenment philosophers and now include many modern scientists who describe themselves as religiously agnostic. Moreover, the concept of design implies absolutely nothing about beliefs normally associated with Christian fundamentalism, such as a young earth, a global flood, or even the existence of the Christian God.¹⁰

⁷ Day 1 PM Transcript at 54, lines 14-18.

⁸ *Pandas* 7. See Appendix A, Quote B.

⁹ *Pandas* 126-127. See Appendix A, Quote C.

¹⁰ *Pandas* at 161.

This context makes it clear that *Pandas* does not endorse any particular religious belief, including Christianity. All design implies is “life had an intelligent source.”¹¹

2. Plaintiffs Mistakenly Contrast Natural Causes With Supernatural Causes, Rather Than With Intelligent Causes

In an attempt to attack the scientific basis of the theory of intelligent design, plaintiffs claim that the only alternative to explanation by natural causes is an appeal to supernatural causes.¹² *Pandas* offers two distinct categories of scientific explanation: natural and intelligent.¹³ *Pandas* carefully distinguishes between “supernatural” causes and “intelligent” causes, for intelligent causes are amenable to scientific investigation, whereas it is impossible to detect whether a cause is “supernatural.”¹⁴

The distinction between intelligent and supernatural causes is a critical one, and it was adopted by FTE before the decision in *Edwards*, as reflected in early drafts of *Pandas*. If plaintiffs were correct, *Pandas* should not explain design using examples of intelligent, yet non-supernatural causes. But *Pandas* offers

¹¹ *Id.*

¹² Day 1 PM Transcript at 42, lines 22-25.

¹³ *Pandas* 6. See Appendix A, Quote G.

¹⁴ See *supra* notes 8-9 and accompanying text.

many such examples, including human writers, artists, skywriters, car manufacturers, carpenters, tribespeople, and engineers.¹⁵

In short, the intelligent aspect of a cause is detectable, while supernatural identity is not: if an intelligent cause is indeed supernatural, its identity as such cannot be determined via science. *Pandas* explains that we have everyday experience with detecting intelligence; thus, intelligent design is not an untestable supernatural concept.

3. Statements About A “Master Intellect” Do Not Endorse Religion.

Plaintiffs argue that appealing to a “master intellect” entails a deity.¹⁶ Yet the appropriate dictionary definition of “master” has no religious overtones:

being a master of some occupation, art, etc.; eminently skilled *a master diplomat; a master pianist*.¹⁷

Pandas refers to the “master intellect” in terms of the designer’s ability to design sophisticated biological molecules.¹⁸ An early draft of *Pandas* observes:

Some master intellect is the creator of life. But such observable instances of information cannot tell us if the intellect behind them is natural or supernatural. This is not a question that science can answer.¹⁹

¹⁵ *Pandas* viii, ix, 6, 7, 32, 56-57, 125.

¹⁶ Day 5 Transcript at 30, lines 13-19.

¹⁷ Webster’s Unabridged Encyclopedic Dictionary of the English Language 1183 (Random House 1996).

¹⁸ *Pandas* 58, 85. See Appendix A, Quote E-F.

¹⁹ Charles Thaxton, “Introduction to Teachers,” in Dean H. Kenyon and P. William Davis, *Biology and Origins*, 1987 Manuscript # I [mss. copyright 1987 by Foundation for Thought and Ethics], p. 13. FTE 002390.

The claim that the complex information in biological organisms is best explained by an intelligent source is no more “ultimate”²⁰ in its reach than the claim of Neo-Darwinism that all life results from random mutation and natural selection. What matters is not the degree of “ultimacy” but whether the claim is one that science can address. “Thus the so-called ‘Big Bang’ theory, an astronomical interpretation of the creation of the universe, may be said to answer an ‘ultimate’ question, but it is not, by itself, a ‘religious’ idea.”²¹ Similarly, intelligent design interprets biological data as sharing the same informational content found in human language and machines. Like Big Bang cosmology or Neo-Darwinism, the theory of intelligent design in biology is not religious because it lacks “comprehensiveness” and is “generally confined to one question.”²²

4. *Pandas* Does Not Advocate “Creation Ex Nihilo” And Advocates A View Of The Fossil Record Consistent With That Of Paleontologists.

The phrase “creation ex nihilo” exists nowhere in *Pandas*. Nonetheless, plaintiffs complain that *Pandas* advocates “abrupt appearance,” which they claim is equivalent to “creation ex nihilo.” *Pandas* states that “[i]ntelligent design means that various forms of life began abruptly through an intelligent agency....,”²³ but this language is a comment on the fossil record, not a theological assertion. It is

²⁰ Day 5 Transcript at 13, lines 1-3.

²¹ *Malnak v. Yogi*, 592 F.2d 197, 209 (3rd Cir. 1979) (Adams, J., concurring).

²² *Id.* at n. 41.

²³ *Pandas* 99-100.

also a commonplace observation among paleontologists. For example, Stephen Jay Gould wrote: “The fossil record with its **abrupt** transitions offers no support for gradual change . . . transitions between major groups are characteristically **abrupt**.”²⁴

True, creationism also defined itself in terms of abrupt appearance, but simply because *Pandas* shared this view with creationists no more renders it a form of creationism than does Stephen Jay Gould’s observation render him a creationist. Moreover, in *Edwards*, the Supreme Court declared creationism religion because it required the “supernatural”;²⁵ “abrupt appearance” had no influence upon the majority’s constitutional analysis,²⁶ no doubt because of the number of mainstream paleontologists who hold similar views.

5. *Pandas* Does Not Promote A View Parallel To Genesis.

While *Edwards* took a broad view of creationism, the Court cited extensively to *McLean*, which found that “the parallels between [creationism] and Genesis are quite specific.”²⁷ These parallels include:

- (1) Sudden creation of the universe, energy, and life from nothing; (2) The insufficiency of mutation and natural selection in bringing about development of all living kinds from a single organism; (3) Changes

²⁴ Stephen Jay Gould, “The Return of Hopeful Monsters,” *Natural History*, 86, June-July, 1977, pp. 22, 24; (emphasis added). See also Appendix C for additional quotes.

²⁵ *Edwards*, 482 U.S. at 591-592.

²⁶ *Edwards*, 482 U.S. at 595.

²⁷ *Edwards*, 482 U.S. at 604, n4 (citing *McLean*, 529 F.Supp. at 1265).

only within fixed limits of originally created kinds of plants and animals; (4) Separate ancestry for man and apes; (5) Explanation of the earth's geology by catastrophism, including the occurrence of a worldwide flood; and (6) A relatively recent inception of the earth and living kinds.²⁸

Two concurring Justices in *Edwards* observed that *McLean* recognized that creationist organizations require commitment to specific religious tenets, including the view that all life was created “by direct creative acts of God during Creation Week as described in Genesis” and “accept[ance] of Jesus Christ as our Lord and Savior.”²⁹ *Pandas* promotes nothing even approximating these viewpoints.

Pandas makes no reference to a flood or worldwide geological catastrophe. *Pandas* never takes the viewpoint that life or the earth were created recently, and at various points incorporates a conventional geological time scale.³⁰ *Pandas* makes no references to Genesis or Christian religious doctrines. It does not claim that life was created “out of nothing” and does not even explore questions about the origin of the universe. While the textbook does question, on scientific grounds, the ability of mutation and selection to account for the complexity of life and at other points questions common ancestry of all living organisms, these views in

²⁸ *McLean*, 529 F. Supp. 1255 at 1264.

²⁹ *Edwards*, 482 U.S. at 603, n3 (citing *McLean* 529 F.Supp. at 1260, n7).

³⁰ *Pandas* 99, 101, 104, 110-112.

themselves do not constitute a religious viewpoint and indeed are advocated by a number of scientists in mainstream scientific literature.³¹

II. “INTELLIGENT DESIGN” DID NOT ORIGINATE WITH *EDWARDS*, BUT RATHER HAS ITS ROOTS IN CLASSICAL PHILOSOPHERS AND 19TH CENTURY NATURALISTS.

Plaintiffs characterize intelligent design as the intellectual offspring of twentieth-century Biblical “creationism.” But this depiction ignores the longstanding and much broader debate over design in nature that has existed for millennia. Ancient philosophers began formulating arguments about design long before they had exposure to the Bible, and indeed without basing their arguments on sacred scriptures of any kind.³²

The Greek philosophers Heraclitus, Empedocles, Democritus, and Anaximander believed that life could originate without any intelligent guidance, while Socrates, Plato, and Aristotle advocated that mind was required.³³ During the Roman era, Cicero cited the orderly operation of the stars as well as biological

³¹ W.F. Doolittle, “Phylogenetic Classification and the Universal Tree,” *Science* 284 (1999) 2124-2128; C. Woese, “The Universal Ancestor,” *Proc. Nat. Acad. Sci. USA* 95 (June, 1998):6854-9859; Robert L. Carroll, “Towards a new evolutionary synthesis,” *Trends in Ecology and Evolution* 15(1)(January 2000):27-32.

³² See Xenophon, *Memorabilia of Socrates*, Book I, chapter 4; Plato, *The Laws*, Book X.

³³ Michael Ruse, “The Argument from Design: A Brief History,” in *Debating Design* 13-16 (William A. Dembski & Michael Ruse eds., Cambridge University Press 2004); John Angus Campbell, “Why Are We Still Debating Darwinism? Why Not Teach the Controversy?” in *Darwin, Design, and Public Education* xii (Michigan State University Press 2003).

adaptations in animals as empirical evidence that nature was the product of “rational design.”³⁴

Design was also an important part of the contemporary scientific debate at the time Darwin’s theory was developed. Indeed, the term “intelligent design” as an alternative to blind evolution was employed by Oxford scholar F.C.S. Schiller as early as 1897. Schiller wrote that “it will not be possible to rule out the supposition that the process of Evolution may be guided by an intelligent design.”³⁵ Schiller, like modern design theorist Michael Behe, argued for intelligent design without rejecting all forms of evolution or even common descent.

Prominent nineteenth century scientists held similar views, including Alfred Russel Wallace, the co-developer with Charles Darwin of the theory of evolution by natural selection. By the late 1800s, Wallace came to believe that natural selection acting on random variations could not explain a number of things in biology, especially the development of the human brain. He concluded instead that “a Higher Intelligence” guided the process:

“[T]here seems to be evidence of a Power which has guided the action of those laws [of organic development] in definite directions and for special ends. And so far from this view being out of harmony with the

³⁴ Cicero, *De Natura Deorum*, trans. H. Rackham (Cambridge: Harvard University Press, 1933), pp. 217, 237, 245.

³⁵ F.C. S. Schiller, “Darwinism and Design Argument,” in Schiller, *Humanism: Philosophical Essays* (New York: The Macmillan Co., 1903): 141. This particular essay was first published in the *Contemporary Review* in June 1897.

teachings of science, it has a striking analogy with what is now taking place in the world....”³⁶

While Wallace certainly ascribed more religious meaning to his concept than was warranted by the data, he nonetheless recognized that it was possible to detect design in nature. It is ironic that the plaintiffs’ narrow definition of science would place the views of the co-founder of the modern theory of evolution outside the confines of science.

Although intelligent design has a long history, it assumed its present scientific form in the early 1980s. One of the key scientists in its reemergence as a full-fledged scientific theory was Charles Thaxton, who researched and advanced intelligent design as part of FTE’s development of *Pandas*. From the outset, FTE insisted that the book must be grounded in objective, empirical evidence. This commitment to following the evidence where it leads was fundamental and flowed naturally from Thaxton’s laboratory background in X-ray crystallography and his authorship of the scientifically acclaimed *The Mystery of Life’s Origin*. Both experiences, along with prior graduate and postdoctoral study, enabled him to grasp how molecular structures can exemplify linearly coded information, as in proteins and DNA.

³⁶ Alfred Russel Wallace, *An Anthology of His Shorter Writings* 33-34, (Charles H. Smith ed. Oxford University Press, 1991).

Such knowledge was not available in the days of F.C.S. Schiller. Yet by the early 1980s, molecular biologists understood how biological systems encoded information, and information theorists had determined that the mathematical treatment of these biological message texts was identical to that of human written language.³⁷ This suggested how to quantify the information in long-chain protein molecules and DNA so that we can identify the patterns characteristic of intelligence with a vastly greater precision and level of confidence than before.

A brilliant but extremely cautious scholar, Thaxton vetted his work through the criticisms of scores of highly qualified scientists, information theorists, and philosophers of science leading to the publication of *The Mystery of Life's Origin* in 1984. As a consequence, the concept of intelligent design, variously expressed, appears often in the work of Thaxton and FTE predating the decision in *Edwards v. Aguillard*.

For example, world famous atheist-turned-theist Antony Flew was referring to a 1985 symposium in Dallas when he stated, "I think the argument to intelligent design is enormously stronger than it was *when I first met it*" (emphasis ours).³⁸

³⁷ Hubert P. Yockey, "Self Organization Origin of Life Scenarios and Information Theory," *Journal of Theoretical Biology*, 91:13 (1981).

³⁸ "My Pilgrimage from Atheism to Theism: A Discussion Between Antony Flew and Gary Habermas," Antony Flew and Gary Habermas, *Philosophia Christi* 6 (2004): 197-211.

Thaxton was a leader in this symposium, and his book, *The Mystery of Life's Origin*, was prominent in the discussion throughout.

Thus, the modern theory of intelligent design is best understood as a revival and extension of this longstanding acceptance of design in nature based on reason and empirical evidence. Plaintiffs' characterization of intelligent design – as no more than “creation science” to conform the findings of science with a sacred religious text – is simply bad history.

III. REJECTION OF THE LANGUAGE OF EARLY DRAFTS OF *PANDAS* CLEARLY DISTINGUISH INTELLIGENT DESIGN FROM CREATIONISM.

Plaintiffs allege that unpublished draft versions of *Pandas* provide evidence that the “real” purpose of the published book is to promote “creationism” and “creation science.” But this claim rests on faulty logic and a misrepresentation of the content of these draft versions.

A. Early, Unpublished Drafts Of *Pandas* Have No Bearing Upon What Students Learn In Schools Today.

It is puzzling, to say the least, that Plaintiffs should rely upon early drafts of *Pandas*, in light of the burden on Plaintiffs to show that either of the first two prongs of the *Lemon* test have been violated. Unless either the school board, the teachers or the students were aware of the early drafts of *Pandas*, it is hard to see how their content could be in any way relevant to the question of whether the school board's actions had a secular purpose, or had a primary effect of advancing

or inhibiting religion. Perhaps plaintiffs recognized that what is presented in the book actually adopted by the school board does *not* support their claim of unconstitutionality—and so they shift attention to an earlier unused version. *But the earlier version was never adopted by the school board and will never be seen by students.* Amicus thus urges that only the published version of *Pandas* is germane, and that previous drafts be ignored.

B. The Removal Of “Creationist” Terminology From The Published Version Of *Pandas* Should Be Interpreted As A Rejection Of Creationism, Not As Hidden Support For Creationism.

Assuming, *ad arguendo*, that the Court looks to previous drafts of *Pandas* to interpret its meaning, however, Amicus urges the Court to draw precisely the opposite conclusions from those advanced by Plaintiffs. Admittedly there are no canons of “textbook interpretation”; however, using canons of construction employed in interpreting statutes, language removed from an earlier draft of statute is usually understood as a *rejection* of that language. For example, “where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.”³⁹ Similarly, in comparing a previous version of legislation that was vetoed to the bill that was ultimately enacted into law, the Supreme Court interpreted the removal of

³⁹ *Russello v. United States*, 464 U.S. 16, 23-24 (1983).

language about retroactivity to mean that Congress intended *not* to make the law retroactive.⁴⁰ Finally, this same form of reasoning is normative among scholars of constitutional law, who refer to language rejected from drafts of constitutional amendments in order to determine what was *not* the intent of the Framers.⁴¹

If the Court were to apply this canon of construction to *Pandas*, then the fact that published versions of *Pandas* removed mention of “creationism” should indicate that textbook authors did *not* intend to promote creationism.

C. A Similar Rule Applied to Plaintiffs’ Own Expert’s Publication Would Disqualify Dr. Kenneth Miller’s Textbook.

Plaintiffs claim that references to “creation” and “creationists” deleted from pre-publication drafts of *Pandas* establish the equivalence of intelligent design and creationism. Yet the first two editions of a biology textbook *actually published* by plaintiffs’ expert Dr. Kenneth Miller explicitly affirmed the anti-religious claim that Darwinian theory “required” belief in philosophical materialism:

Darwin knew that accepting his theory required believing in *philosophical materialism*, the conviction that matter is the stuff of all existence and that all mental and spiritual phenomena are its by-products...Suddenly, humanity was reduced to just one more species in a world that cared nothing for us... Worst of all, there was no divine plan to guide us.⁴²

⁴⁰ *Landgraf v. USI Film Products*, 511 U.S. 244 , 255-56 (1994).

⁴¹ Douglas Laycock, “‘Non-Preferential’ Aid to Religion: A False Claim About Original Intent,” 27 Wm. & Mary L. Rev. 875 (1986).

⁴² Joseph S. Levine and Kenneth R. Miller, *Biology: Discovering Life* 152 (D.C. Heath and Co., 1st ed. 1992; this language was not removed for the 2nd ed. in 1994).

Dr. Miller was quick to point out that later versions of his textbooks removed such anti-religious statements. But if unpublished drafts—never seen by the school board or students—evidence the “real meaning” of *Pandas*, what should be the significance of language that Dr. Miller actually published?⁴³

Plaintiffs’ attempt to rely on pre-publication drafts of *Pandas* not only ignores the context in which the constitutional issues in this case arise, but threatens to open a floodgate to lawsuits challenging the “hidden agenda” of textbooks widely used by students today.⁴⁴

D. Early Drafts Of *Pandas* Did Not In Fact Advocate Creationism As It Has Been Defined By The Supreme Court

While certain early drafts of *Pandas* and other writings may have used the terms “creation” and “creationists,” it is clear that these terms were defined to mean something quite different from “creationism” as later defined by the Supreme Court. As noted earlier, from the beginning *Pandas* specifically rejected the view that science could detect whether the intelligent cause identified was supernatural. Although the process by which an intelligent agent produces a designed object can loosely be called a “creation” (as in stating that this brief was the “creation” of several lawyers), the authors of *Pandas* clearly understood that this was a

⁴³ Dr. Miller admits that he also deleted language from the still-used 1995 version of his “Elephant” textbook which he agreed described evolution in religious terms as “random and undirected.” Day 2 AM Transcript 4-9.

⁴⁴ According to Dr. Miller, about 35% of students use his textbooks. Day 1 AM Testimony at 44, lines 14-18.

“placeholder” for a more sophisticated expression of this concept. A pre-*Edwards* draft from early 1987 emphatically stated that “observable instances of information cannot tell us if the intellect behind them is natural or supernatural. This is not a question that science can answer.”⁴⁵ The same early draft rejected the eighteenth-century design argument from William Paley because it illegitimately tried “to extrapolate to the supernatural” from the empirical data of science. Paley was wrong because “there is no basis in uniform experience for going from nature to the supernatural, for inferring an unobserved supernatural cause from an observed effect.”⁴⁶ Similarly, another early draft (also from when the manuscript was still titled “Biology and Origins”) stated:

[T]here are two things about which we cannot learn through uniform sensory experience. One is the supernatural, and so to teach it in science classes would be out of place . . . [S]cience can identify an intellect, but is powerless to tell us if that intellect is within the universe or beyond it.⁴⁷

By unequivocally affirming that the empirical evidence of science “cannot tell us if the intellect behind [the information in life] was natural or supernatural”⁴⁸

⁴⁵ Thaxton, “Introduction to Teachers,” manuscript # I, p. 13. FTE 002390. *See* Appendix B, Document A.

⁴⁶ *Id.*

⁴⁷ Charles Thaxton, “Introduction to Teachers,” in Dean H. Kenyon and P. William Davis, *Biology and Origins*, 1987 manuscript # II [mss. copyright 1987 by Foundation for Thought and Ethics], pp. 7-8. FTE 002138-002139. *See* Appendix B, Documents B-C.

⁴⁸ Charles Thaxton, “Introduction to Teachers,” manuscript # I, p. 13. FTE 002390. *See* Appendix B, Document A.

it should be clear that the early drafts of *Pandas* meant something very different by “creation” than did the Supreme Court in *Edwards*.⁴⁹ The decision to use the term “intelligent design” in the final draft to express the emerging theory of origins was not an attempt to evade a court decision, as Plaintiffs have alleged, but rather to furnish a more precise description of the emerging scientific theory.

IV. THE PRESENT THEORY OF INTELLIGENT DESIGN DOES NOT RELY UPON *PANDAS* AS AN AUTHORITATIVE GUIDE.

If this case were being argued in 1989, *Pandas* might be more dispositive as an authoritative guide to the theory of intelligent design. But there is now more than 15 years of scholarship by scientists and philosophers of science who think there are empirical means to detect design in nature. *Pandas* predates most of the major works of the contemporary design movement in science, including monographs by Cambridge University Press, and technical articles in peer-reviewed science and philosophy of science journals. The primary guide to the beliefs and views of intelligent design scholars today should be this record of scholarly and scientific and technical articles, not a supplementary high school textbook written more than a decade-and-a-half ago.⁵⁰

⁴⁹ *Edwards*, 482 U.S. at 592.

⁵⁰ See Appendix D.

CONCLUSION

For the foregoing reasons, Amicus respectfully requests the Court to find that there is nothing unconstitutional about using the textbook *Of Pandas and People* to teach students about the scientific theory of intelligent design in public school science classrooms.

Respectfully submitted,

/s/ Randall L. Wenger

Randall L. Wenger, Esq.

Pa. ID No. 86537

Leonard G. Brown, III, Esq.

Pa. ID No. 83206

CLYMER & MUSSER, P.C.

23 North Lime Street

Lancaster, PA 17602

(717) 299-7101

Jeffrey C. Mateer

Texas State Bar No. 13185320

MATEER & SHAFFER, L.L.P.

1300 Republic Center

325 N. St. Paul Street

Dallas, Texas 75201

(214) 720-9900

**Attorneys for The Foundation
Thought and Ethics**

CERTIFICATE OF COMPLIANCE

Counsel certifies that this brief complies with the type-volume limitation set forth in Local Rule 7.8 (b)(2) of the Local Rules for the United States District Court for the Middle District of Pennsylvania. According to the word-processing system used to prepare it, this brief contains 4921 words.

Randall L. Wenger, Esq.

CERTIFICATE OF SERVICE

I hereby certify that on November 4, 2005, a copy of the foregoing *Brief of Amicus Curiae* and exhibit were served on the following counsel through the electronic case filing system:

Eric Rothschild
Stephen G. Harvey
Joseph M. Farber
Benjamin M. Mather
Pepper Hamilton LLP
3000 Two Logan Square
18th and Arch Streets
Philadelphia, PA 19103

Thomas B. Schmidt, III
Pepper Hamilton LLP
200 One Keystone Plaza
North Front and Market Streets
P. O. Box 1181
Harrisburg, PA 17108

Witold J. Walczak
ACLU of Pennsylvania
313 Atwood Street
Pittsburg, PA 15213

Paula K. Knudsen
ACLU of Pennsylvania
105 N. Front Street
Suite 225
Harrisburg, PA 17101

Richard B. Katskee
Ayesha Khan
Alex J. Luchenitser
Americans United for Separation Of Church and State
518 C. Street, NE
Washington, DC 20002

Mary Catherine Roper
ACLU of Pennsylvania
P. O. Box 1161
Philadelphia, PA 19105

Richard Thompson
Robert J. Muise
Patrick T. Gillen
THOMAS MORE LAW CENTER
24 Frank Lloyd Wright Drive
P. O. Box 393
Ann Arbor, MI 49106

Ron Turo
Turo Law Offices

28 South Pitt Street
Carlisle, PA 17013

/s/ Randall L. Wenger
Randall L. Wenger, Esq.