Deconstructing An expert witness for the district shares lessons from 'Scopes 2005' By Dick M. Carpenter II

t was a trial that didn't have to happen. But for five weeks this past fall, spectators, international media, and even movie producers watched attorneys in the case of Kitzmiller et al. v. Dover Area School District battle over a one-minute statement that was being read to students in a Dover, Pa., biology classroom.

In part, the statement read:

Because Darwin's Theory is a theory, it is still being tested as new evidence is discovered. The Theory is not a fact. Gaps in the Theory exist for which there is no evidence. A theory is defined as a well-tested explanation that unifies a broad range of observations."

This part of the statement is controversial enough. Many scientists regard such assertions, commonly included as part of a "teach the controversy" approach, as inaccurate and "bad science." At best, the plaintiffs' attorneys asserted, the "gaps in the theory" idea would only confuse students. Even worse, such statements could lead students to mix the mechanics of evolution with the facts of evolution and dismiss the latter out of hand. As a result, students would be ill prepared for the real science they would encounter beyond the confines of Dover High School.

Not so, said the district's attorneys. This statement merely represented the current state of affairs regarding evolutionary theory. They pointed to documents and statements made by those in the scientific community that aligned with the Dover board's position. For example, the National Science Education Standards call the theory of evolution "incomplete." Pennsylvania science and technology standards call for students to "Critically evaluate the status of existing theories (e.g., ... theo-

ry of evolution ...)." And even the Dover biology textbook reads: "... researchers still debate such important questions as precisely how new species arise and why species become extinct. There is also uncertainty about how life began."

Then there are examples of mainstream scientists who question the mechanics of evolution. Steven Jay Gould, a prominent evolutionary theorist, noted: "The extreme rarity of transitional forms in the fossil record persists as the trade secret of paleontology. The evolutionary trees that adorn our textbooks have data only at the tips and nodes of their branches; the rest is inference, however reasonable, not the evidence of fossils." And microbiologist Franklin M. Harold wrote: "[W]e must concede that there are presently no detailed Darwinian accounts of the evolution of any biochemical system, only a variety of wishful speculations."

ENTER 'INTELLIGENT DESIGN'

But there was more to the Dover statement—something you won't find in the National Science Education Standards or science textbooks:

Intelligent design is an explanation of the origin of life that differs from Darwin's view. The reference book, 'Of Pandas and People,' is available for students to see if they would like to explore this view in an effort to gain an understanding of what intelligent design actually involves.

Citing these sentences, attorneys for the plaintiffs portrayed the Dover statement as an establishment of religion. After all, they said, intelligent design is nothing more than "Creation-lite," particularly because it allows for the possibility of other-thannatural causation. One of the plaintiffs' expert witnesses called



it "the worst thing I've ever heard of in science education."

Attorneys for the school district denied the religious association, pointing to scientists who advocate intelligent design. Expert witnesses for the district included a biochemist and microbiologist who testified about the scientific details of intelligent design. Even if it were religious, the attorneys continued, the school district wasn't actually teaching it as much as making students aware of its existence. Beyond the statement, the curriculum taught only evolution consistent with mainstream science and the Pennsylvania standards. Students were encouraged to analyze other alternatives, of which intelligent design is one, on their own initiative and time.

Even this might have been defensible. But then there's the rest of the story.

WORDS OF WARNING

In 2004, as the Dover school board debated this addition to the biology curriculum, it deviated from its custom of involving a curriculum advisory committee that includes members of the public. Several board members recommended to their colleagues that the change be vetted by the advisory committee, to no avail.

Theirs were not the only words of warning. Dover's superintendent, assistant superintendent, and high school science teachers recommended to the board that intelligent design not be included in the statement. The pro-intelligent design Discovery Institute based in Seattle also counseled the board not to include it. According to its website, Discovery favors teaching evidence for and against what it calls neo-Darwinism but opposes official inclusion of intelligent design in the curriculum.

"We think mandating intelligent design politicizes what

should be a scientific debate and harms the efforts of scientists who support design to gain a fair hearing in the scientific community," the website says.

In other words, nonscientists with religious connections and intentions frequently champion intelligent design, which makes it appear guilty by association. This proves particularly problematic in schools, where courts have ruled that decisions should be made with a clear and secular purpose.

It was just such an association that the board's solicitor advised members about in yet another warning along the way. "My concern for Dover is that in the last several years, there's been a lot of discussion, newsprint, etcetera, for putting

religion back in the schools," he wrote. "In my mind, this would add weight to a lawsuit seeking to enjoin whatever the practice might be."

To be sure, the board did not "mandate" intelligent design. Biology teachers did not have to read the offending statement (school administrators did), and students were allowed to "optout" of the reading of the statement (which some did). But some board members allegedly expressed religious motivations for challenging evolutionary orthodoxy and making students aware of intelligent design. Moreover, library copies of *Pandas* were financed largely by a board member's church, an association he and another board member apparently tried to mask during depositions.

LESSONS FOR BOARDS

Contrast this with concurrent events in Kansas, where the state board of education voted to recommend that schools teach the "considerable scientific and public controversy" surrounding evolutionary theory. In so doing, Kansas joined four other states—Minnesota, New Mexico, Ohio, and Pennsylvania—in calling for critical analysis of evolution. During public hearings, the Kansas board heard testimony from various sides prior to changing state standards, which call for science education that is "secular, neutral, and non-ideological." Noticeably absent are any references to intelligent design. Critics called it a "sad day," and Kansas Gov. Kathleen Sebelius portrayed the decision as "troubling." But thus far, one thing remains missing—lawsuits.

For school board members interested in "teaching the controversy" about evolutionary theory, the lessons here are clear: Conduct the public's business in and with the public. Make

sure your policies are justified with a clear and secular purpose. Neither officially advocate nor prohibit intelligent design. Seek out and pay attention to expert advice.

Finally, keep your eye on the ball. The stated goal in Dover was to make students aware of the "incomplete" nature of evolutionary theory—not to teach intelligent design. Trying to do the latter unnecessarily derailed the board from its original goal and may cost the district millions in attorneys' fees.

If all of this doesn't convince you, consider where the pro-

intelligent design Dover board members ended up after the Nov. 9 election—out on the street.

Dick M. Carpenter II is an assistant professor of educational leadership, research, and foundations at the University of Colorado in Colorado Springs. Prior to that he served as an education policy analyst, an elementary school principal, and a high school teacher. He served as an expert witness for the defendants in Kitzmiller et al. v. Dover Area School District.

A decision that strengthens the wall between church and state

IF YOU'RE a Christian—and more than 75 percent of Americans say they are—you probably believe in something like intelligent design.

The same holds true if you're Jewish, or Muslim, or an adherent of one of countless other faiths that maintain that God—however envisioned—created heaven, earth, and all humankind. It might not be the intelligent design of the biblical creationists who tried, unsuccessfully, to insert religion into the science curriculum of the Dover, Pa., public schools. But it is, nonetheless, a faith that posits a design, and a designer.

It is one of the ironies of Kitzmiller et. al. v. Dover Area School District that many of those who vigorously challenged the teaching of intelligent design in this small Pennsylvania school district have no problem espousing it on Sundays. To intelligent design's advocates, that may seem hypocritical, or worse; but to those who believe in America's constitutional separation of church and state, it is essential.

On Dec. 20, Judge John E. Jones III sided squarely with the constitutionalists, ruling that Dover's school board erred when it inserted a four-paragraph statement into its science curriculum proclaiming that Darwin's theory of evolution "is not a fact" and that intelligent design "is an explanation of the origins of life that differs from Darwin's view."

"The overwhelming evidence is that intelligent design is a religious view, a mere re-labeling of creationism and not a scientific theory," Jones wrote in a 139-page decision. "It is an extension of the Fundamentalists' view that one must either accept the literal interpretation of Genesis or else believe in the godless system of evolution."

The new school board—almost completely different in makeup from the one that adopted the policy—rescinded the policy two weeks after the court's ruling. (In elections last November, eight incumbents on the nine-member board were up for reelection, and all eight lost their seats.)

In his ruling, Judge Jones placed the Dover board's action in the context of a long history of attempts by fundamentalist Christians to put creationist theology in the public schools.

While the name may have changed to intelligent design, the judge said, the underlying concept was the same.

"We conclude that the religious nature of intelligent design would be readily apparent to an objective observer, adult or child," Jones said. "The writings of leading ID proponents reveal that the designer postulated by their argument is the God of Christianity."

Jones also criticized those who said it would be acceptable to question evolutionary theory in science classes—to "teach the controversy," as proponents say—as long as the district did not mandate the teaching of intelligent design.

"This tactic is at best disingenuous, and at worst a canard," Jones wrote. He said the goal "is not to encourage critical thought, but to foment a revolution which would supplant evolutionary theory with ID."

The court ruling was praised by Francisco Negron, general counsel for the National School Boards Association. Although it does not affect schools outside Pennsylvania, the ruling gives school boards a clearer idea of what can, and cannot, be taught in science classes, he said. "They now have a definition from a federal court judge—a definition of intelligent design as nonscience."

On the other side, Richard Land, president of the Southern Baptist Convention's Ethics & Religious Liberty Commission, excoriated Jones for drawing a sharp line between church and state.

"This decision is a poster child for a half-century secularist reign of terror that's coming to a rapid end with Justice Roberts and soon-to-be Justice Alito," Land told the Post.

The ruling is clearly not the end of the story. In a Dec. 22 editorial, the Post had this advice for school boards and courts: "If a school district adopts a policy of promoting a religious cosmology, however couched, in an effort to undermine science and thereby instill religious values, that policy must fall. As other jurisdictions contemplate similar acts of what Judge Jones calls 'breathtaking inanity,' this is a good principle for courts to follow."

—Lawrence Hardy, Senior Editor