

## What's a Nice Midwestern Girl Like You Doing in a Place Like This?

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The intensity of antievolution activism in North America is variable, but its commitment is dogged. There has been little movement in the answers to Gallup's polls on evolution over the past three decades: respondents remain about equally divided on whether humans evolved from nonhuman ancestors or were created pretty much in current form 10,000 years ago. The episodic upswings in proposals to restrict the accurate teaching of evolution or to include scientifically unwarranted objections to evolutionary science often occur in response to efforts to increase the accuracy and depth of science education, including evolutionary science, as in proposed reforms to science education in the 1960s and 1990s.

The reaction in the academic community to the proposed legislation and to textbook challenges from so-called creation science in the 1970s ranged from puzzlement to incredulity. Within academia, evolution had been so deeply embedded in all the life sciences so successfully and for so long that it was hard for scientists to accept that there was any serious doubt about its validity. What's more, *Epperson v. Arkansas* (393 U.S. 97 [1968]) had decisively closed the door on state laws that prohibited teaching evolution in public schools. And yet, rather than being chastened by these legal setbacks, creationism came roaring back with new strategies and new slogans, even though their basis was the same: scientifically discredited religiously based objections to evolution.

Among those thrown into the mix in the early 1980s was Eugenie C. Scott, a newly minted bioanthropology professor

working in Lexington, Kentucky. Not only did she teach evolution, but as an anthropologist she went even further: she taught *human* evolution. But she was prepared for controversy, having formed an interest in creationism in graduate school and having amassed a collection of antievolution tracts and books. So, whenever antievolution activists raised their objections to teaching evolution in the Bluegrass State, Scott was among those who answered the challenge. When a local group of creationists tried to require the teaching of creation science in the Lexington schools, she was at the forefront of the resistance, organizing a broad coalition to defend the integrity of science education.

It wasn't only because of her knowledge of creationism that Scott was effective in the Lexington dispute. A native of the upper Midwest, she exemplified those cultural values that emphasized being tolerant, thoughtful, and cooperative—while always remaining firm on the need not to compromise when it comes to maintaining the integrity of science education against the creationist assault. This turned out to be an extremely successful way of assembling effective coalitions. In a joking reference to Thomas Henry Huxley's description of himself as Darwin's bulldog, she likes to call herself Darwin's golden retriever.

While Scott was fighting for evolution in Kentucky, supporters of evolution, under the leadership of Stanley Weinberg, were organizing a loose network of "committees of correspondence" (named after similar committees during the American War for Independence) to serve as clearing-houses for information, local talent for planning and organizing responses to the challenges of creationists, and a focus for coordinated action. In the late 1970s and early 1980s, these groups were one of the main ways for the academic community and concerned citizens to engage in resistance to antievolutionists' efforts to weaken or remove evolution from the public school science curriculum.

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As antievolutionist activity was reinvigorated in the early 1980s, it became clear that opponents to evolution education were making the same claims, using the same “evidences,” and using the same tactics in legislatures and school boards around the country. There was an obvious need for an efficient way to provide coordination among existing state and local groups and to react quickly with help and resources for local groups when antievolutionism flared up in their communities. The National Center for Science Education (NCSE) was formed to meet this need, and the next step was to hire an executive director, which NCSE’s leadership found in Scott, who had come to the San Francisco Bay Area in 1983 as a postdoctoral scholar in medical anthropology.

### Early Years

In its early years, NCSE was a small organization always playing catch-up. A dedicated and underpaid staff worked hard to monitor antievolution activity around the country, but NCSE’s efforts were often limited to responding to crises that arose as state legislatures, textbook-selection committees, or school boards considered proposals that would have compromised the contemporary understanding of evolution—either by inserting creationist material into textbooks and curricula or by presenting evolution in a way that made it appear to be vulnerable to creationist objections. Under Scott, NCSE forged powerful collaborations with civil-liberties, education, humanist, and religious organizations to develop a broad coalition of support for good science education. And within this coalition, NCSE acted as the bridge among all these constituencies—a role that would become the hallmark of NCSE’s involvement in anti-evolution flare-ups.

Though national in its mandate, NCSE relied on its executive director to defend evolutionary science effectively at many levels, usually by providing support to local citizens’ groups that were directly involved in the dispute. In part, this was a practical decision on how best to use limited resources, but in part it was an insightful strategic move. After the decisions in *McLean v. Arkansas* (529 F. Supp. 1255 [ED Ark. 1982]) and *Edwards v. Aguillard* (482 U.S. 578 [1987]) that struck down creationists’ “equal time” legislation at the state level, creationist organizations increased their activism at the local level—running for school board elections, stacking textbook-selection committees in individual districts, making donations of antievolution books to school libraries, and pressuring individual teachers and school administrators to downplay evolution or include creationism. To oppose this activism effectively required a local response, and NCSE had information, resources, and

especially prepared responses to the claims and complaints of creationists.

This strategy for supporting evolution education required Scott to engage in considerable traveling, writing, participating in press interviews, reviewing instructional materials, and talking and corresponding with various parties directly involved in flare-ups—parents, teachers, school officials, legislators and their staff, attorneys, and other concerned citizens. With little funding and only the power of persuasion, the success of this endeavor would require the proper mix of dedication, hard work, intelligence, and persistence—exactly what Scott brought to the job.

### Watershed

It was Kansas that did it. In 1999, the Kansas State Board of Education was convinced by creationists to delete references to evolution, the Big Bang, and similar topics from the state science standards. Perhaps it took such an unapologetic attack on evolution to convince people that creationism—including its most recent incarnation as “intelligent design”—was a real and ongoing threat. When the proposed changes in science education standards surfaced in Kansas and quickly made national headlines, support for NCSE blossomed, and the organization went from a small, perennially struggling operation to one with enough resources and staff to make a difference and to be assured of continued survival.

Scott’s leadership made this jump possible because she had prepared a national organization primed to reach out to support concerned citizens and organizations all over the country and to draw on all the resources of NCSE’s collaborators. Her staff was able to provide rich resources in a wide variety of related disciplines—including education, philosophy, and legal affairs—in addition to rebuttals of creationism and support for evolutionary science. Furthermore, Scott cultivated valuable ongoing relationships with scientific, legal, and educational organizations that made it possible to obtain specialized advice for NCSE and resources for local evolution supporters.

Though the situation in Kansas was a roller-coaster ride—the board of education first weakened, then strengthened, then weakened, then strengthened the treatment of evolution in the state science standards, as the political fortunes of the creationist faction waxed and waned—the outcome placed NCSE prominently on the national stage. So when an apparently routine call came in about an antievolution disclaimer in Dover, Pennsylvania, it seemed like more of the same. But, of course, it wasn’t—for two reasons.

First, there was the case itself, *Kitzmiller v. Dover* (400 F. Supp. 2d 707 [2005]), which made it clear that the new

kid on the block—“intelligent design”—was, as Scott and others had discerned, little more than repackaged creationism. As such, it was snared by First Amendment prohibitions, and the Dover Area School Board’s policy requiring that “[s]tudents will be made aware of gaps/problems in Darwin’s Theory and of other theories of evolution including, but not limited to, intelligent design” was ruled to be unconstitutional.

Second, there was the new role that NCSE played in this case. Previously, NCSE had supported proevolution parties in relevant litigation, even filing *amicus curiae* briefs in various cases. In Dover, however, NCSE’s support was integral to the development and prosecution of the case. Recognizing the potential importance of *Kitzmiller*, Scott helped to assemble the legal team that represented the 11 plaintiffs and recruited a team of expert witnesses—including three members of NCSE’s board of directors—to testify. Moreover, Scott worked with NCSE staff to provide to the legal team research background materials, access to publications, and consultation with experts in the fields relevant to the curriculum issues. And, of course, she worked tirelessly to inform and educate the media about the issues during the trial. All this was possible precisely because of the way that Scott had guided the evolution of NCSE from the loose network of interested citizens in the Committee of Correspondence days into a rich tapestry of people, material, and experiences.

### The Future

In the short time since *Kitzmiller*, Scott has led NCSE into new arenas. Using the talents of her well-chosen staff, NCSE has a presence on Facebook and Twitter and has posted videos to its YouTube channel. It has used internet sites to prepare materials in anticipation of media events, such as the release of the creationist propaganda movie *Expelled: No Intelligence Allowed* and evangelist Ray

Comfort’s campus giveaway of copies of *On the Origin of Species* defaced by a creationist introduction.

The organization continues to counter the assaults on the teaching of evolution, whether they take the form of old-fashioned creation science, new-fangled intelligent design, or the perennial creationist fallback strategy of impugning evolution while remaining silent about any supposed alternatives. These assaults come from across the United States—and even from abroad, as both Christian and Muslim creationists are attacking evolution education in various countries around the world. Such attacks are all the more serious because many of these nations require a national curriculum for all schools and because there is often no constitutional prohibition against infusing sectarian religious views into the curriculum.

But NCSE is no longer limited just to responding to crises—although that remains an important part of its mission. Its blossoming makes it possible for it not only to defend evolution education but also to engage in efforts to promote, improve, and expand it. Accordingly, NCSE staff members contribute to scholarly and popular publications (including a regular column for *Evolution: Education and Outreach*), maintain active blogs, run courses and workshops on evolution education for teachers, consult with religious and civil liberties organizations, and maintain a one-of-a-kind archive of creationist materials and responses to them. Furthermore, NCSE staff members consistently partner with experts in a wide variety of fields to provide sound background material to help the general public understand why evolution is so completely accepted and so useful in the sciences.

Anyone who cares about the future of evolution education ought to be grateful for the continuing efforts of NCSE. And its accomplishments are due to the vision and leadership of Eugenie C. Scott, which this issue of *Evolution: Education and Outreach* is devoted to celebrating.

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