



August 11, 2014

State Board of Education
Barry Bolen, Chair
1429 Senate Street
Columbia, SC 29201

Re: Proposed changes to the South Carolina science education standards

Dear members of the State Board of Education:

We write on behalf of ACLU members and supporters in South Carolina to express our deep concern regarding a proposed amendment to the 2014 state science standards, which the Board is set to consider this week. The proposed language – reportedly a “compromise” from an earlier amendment rejected by the Board – is plainly unconstitutional and could invite litigation. Moreover, it would undermine science education across the state, endangering the educational and employment futures of South Carolina’s students as well as the state’s own economic and job prospects. We urge you to reject this compromise amendment and to reaffirm the Board’s commitment to the unaltered 2014 science standards.

In June, the Board properly declined to adopt an amendment to the science education standards that would have would asked students to “[c]onstruct scientific arguments that seem to support and scientific arguments that seem to discredit Darwinian Natural Selection.” Proposed by Senator Michael Fair, the amendment would have run afoul of the Establishment Clause of the First Amendment to the U.S. Constitution by undermining evolution education in order to bolster and promote creationist religious beliefs.¹ The language put before the Board this week as a compromise does not cure this constitutional infirmity.

¹ See, e.g., *Edwards v. Aguillard*, 482 U.S. 578, 586, 591 (1987) (striking down Louisiana Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction Act as unconstitutional, holding that the Act was “was not designed to further” the State’s purported goal of “protect[ing] academic freedom,” and concluding that “[t]he preeminent purpose of the Louisiana Legislature was clearly to advance the religious viewpoint that a supernatural being created humankind”); *Epperson v. Arkansas*, 393 U.S. 97, 107 (1968) (holding unconstitutional state law prohibiting the teaching of evolution in public schools as “there can be no doubt that Arkansas has sought to prevent its teachers from discussing the theory of evolution because it is contrary to the belief of some that the Book of Genesis must be the exclusive source of doctrine as to the origin of man”).

Under the newly proposed amendment, students would be taught (1) that “scientific conclusions are tested by experiment and observation, and evolution, as with any aspect of science, is continually open to and subject to experimental and observational testing” and (2) that “all theories may change as new scientific information is obtained.” This revised language can be traced directly to a long creationist tradition of intentionally conflating the popular meaning of the word “theory”—a guess or conjecture – with the scientific meaning: a well-substantiated, comprehensive explanation of a part of the natural world that is supported by a vast body of evidence.²

While it is true that our understanding of the natural world is constantly being refined, singling out evolution by placing this language in the Biological Evolution section suggests that evolution is less established than other scientific ideas. This is simply inaccurate, and it is irresponsible to mislead students about this cornerstone of biology. Evolution is so well-established that there is no legitimate scientific debate regarding its validity any more than there is a scientific debate regarding the validity of the theory of universal gravity.³

Efforts to insert disclaimers to the contrary, such as the compromise amendment, into public schools’ evolution curricula have been repeatedly rebuffed by courts.⁴

² See NAT’L ACADEMIES OF SCI., SCIENCE, EVOLUTION, AND CREATIONISM 50 (2008), available at http://www.nap.edu/openbook.php?record_id=11876; see also, e.g., Kent Greenawalt, *Establishing Religious Ideas: Evolution, Creationism, and Intelligent Design*, 17 Notre Dame J.L. Ethics & Pub. Pol’y 321, 329 (2003) (“Believing that evolutionary theory conflicts with God’s revealed truth and that it is an atheist idea that undermines both religious faith and morality, [Christian Fundamentalists] have tried to purge evolution from the curriculum, to have it balanced by “creation science,” or to have it labeled as ‘only a theory.’”); Stephen Jay Gould, *Evolution as Fact and Theory*, Discover, May 1981, at 34, available at http://www.stephenjaygould.org/library/gould_fact-and-theory.html (“[E]volution is a theory. It is also a fact. And facts and theories are different things, not rungs in a hierarchy of increasing certainty.”)

³ See NAT’L ACADEMIES OF SCI., SCIENCE, EVOLUTION, AND CREATIONISM 50 (2008), available at http://www.nap.edu/openbook.php?record_id=11876 (“[E]volution itself has been so thoroughly tested that biologists are no longer examining *whether* evolution has occurred and is continuing to occur.”).

⁴ See, e.g., *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337, 344-45 (5th Cir. 1999) (overturning school-board policy requiring teachers to read classroom disclaimer that encouraged students to “exercise critical thinking and gather all information possible and closely examine” both evolution and creationism, and holding that the “contested disclaimer does not further the [district’s] first articulated objective of encouraging informed freedom of belief or critical thinking by students . . . [but rather] we find that the disclaimer as a whole furthers a contrary purpose, namely the protection and maintenance of a particular religious viewpoint”); *Daniel v. Waters*, 515 F.2d 485, 489 (6th Cir. 1975) (striking down state statute that prohibited “the selection of any textbook which teaches evolution unless it also contains a disclaimer stating that such doctrine is ‘a theory as to the origin and creation of man and his world and is not represented to be scientific fact’”); *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1306 (N.D. Ga. 2005) (holding unconstitutional school-district policy requiring placement of sticker disclaiming evolution as theory, not fact, in all science textbooks because the sticker impermissibly “sen[t] a message to those who oppose evolution for religious reasons that they are favored members of the political community, . . . [and] a message to those who believe in evolution that they are political outsiders”), *vacated and remanded on grounds of incomplete trial record*, 449 F.3d 1320 (11th Cir. 2006) (settlement by the parties on remand required removal of the disclaimer sticker); *Kitzmiller v. Dover*, 400 F. Supp.2d 707, 765-66 (M.D. 2005) (enjoining school-board policy requiring teachers to read disclaimer statement in biology class declaring that evolution “is not a fact” and promoting intelligent design).

Although the Board may desire to placate those who have previously objected to the coverage of evolution in the education standards,⁵ it cannot do so by ignoring the First Amendment.

South Carolina’s families trust our public schools to provide their children with a quality education, including a sound foundation in science. And they trust this Board to ensure that the curriculum complies with the law and respects basic constitutional rights. These are fundamental principles regarding which there should be no compromise. We urge you to reject this amendment and to instead pass the unamended 2014 science standards.

Sincerely,

A handwritten signature in black ink, consisting of a large, stylized loop followed by a horizontal line extending to the right.

Susan Dunn
Legal Director

⁵ Sen. Fair, the most outspoken critic of the unamended standards, has long sought to undermine the teaching of evolution in South Carolina’s public schools by introducing various bills that target science education. *See, e.g.*, S. 875, 118th Sess. (S.C. 2009) (proposing bill that would single out purportedly “controversial” topics “such as biological evolution, the chemical origins of life, global warming, and human cloning” and allowing teachers to “help students understand, analyze, critique, and review . . . the scientific strengths and weaknesses” of these topics); S. 873, 118th Sess. (S.C. 2009) (proposing a bill that called for the Board to review all curriculum about “the origins of mankind” to determine whether it favors “those who believe in no religion over those who hold religious beliefs”); S. 1386, 117th Sess. (S.C. 2008) (proposing a bill that would allow teachers to teach the “scientific strengths and weaknesses of biological and chemical evolution”) In addition, he has previously delayed the adoption of science education standards because of his religious beliefs about evolution. *See, e.g.*, Jamie Self, *SC Senator’s Darwin Skepticism Halts Evolution Standard’s Adoption*, THE STATE (Feb. 10, 2014), <http://www.thestate.com/2014/02/10/3257743/darwin-skepticism-halts-adoption.html> (quoting Fair’s distrust of natural selection as the basis for his objection to the standards).