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## [Victory over "weaknesses" in Texas](#) [3]



In a close vote on January 23, 2009, the Texas state board of education approved a revision of the state's science standards lacking the controversial "strengths and weaknesses" language, which in 2003 was selectively applied by members of the board attempting to dilute the treatment of evolution in the biology textbooks then under consideration. The removal of the "strengths and weaknesses" language represents a tremendous victory for science education in Texas, with the *Dallas Morning News* (January 23, 2009) [describing](#) [4] the failure of a proposed amendment to reintroduce it as "a major defeat for social conservatives." But the struggle is not over, for a number of scientifically indefensible revisions to the biology and earth and space science standards were adopted at the last minute. Defenders of the integrity of science education in Texas plan to expose the flaws in these revisions and hope for a reversal when the board takes its final vote on the standards at its March 26-27, 2009, meeting.

The crucial vote not to restore the "strengths and weaknesses" language took place on January 22, 2009, the second day of the board's meeting. During the first day of the board's meeting, as NCSE previously [reported](#) [5], dozens of witnesses expressed their views about the proposed standards, including NCSE's executive director Eugenie C. Scott, who urged the board to heed the advice of the scientific and educational experts who revised the standards and decided to omit the "strengths and weaknesses" language. Board members who opposed the amendment cited the need to respect the work of the experts, according to the *Morning News*, with Mary Helen Berlanga commenting, "We need to stay with our experts and respect what they have requested us to do," and Geraldine Miller similarly commenting, "We need to respect what our teachers have recommended to us." Similarly, Rick Agosto was [quoted](#) [6]

in the *San Antonio Express-News* (January 23, 2009) as saying, "I have to consider the experts."

Members of the board who favored the amendment seemed, however, to consider themselves to be experts. Ken Mercer — who is on record as [claiming](#) [7] that evolution is falsified by the absence of any transitional forms between cats and dogs — was reported by the *Express-News* as saying that he was not going to rubber-stamp the recommendations of the experts who revised the standards. And he was also quoted by the *Morning News* as complaining, "The other side has a history of fraud. Those arguing against us have a bad history of lies." Steven Schafersman of Texas Citizens for Science, who was blogging from the meeting, [reported](#) [8] that Mercer cited "the bogus and misleading examples of Piltdown Man, Haeckel's vertebrate embryo drawings, the peppered moths that were glued to tree trunks, and the half-bird, half-dinosaur that were all 'evolutionary frauds'" — all of which are familiar staples of creationist literature attempting to discredit evolution.

Ultimately, as the *Morning News* reported, "The amendment failed to pass on a 7-7 vote, with four Democrats and three Republicans voting no. Another Democrat — who would have opposed the amendment — was absent." The significance of the vote was apparent to the Texas media: for example, the headline of the story in the *Morning News* was "Texas Board of Education votes against teaching evolution weaknesses"; the *San Antonio Express-News* began its story with the sentence, "A 20-year-old Texas tradition allowing public schools to teach 'both the strengths and weaknesses' of evolution succumbed to science Thursday when the State Board of Education voted to abolish the wording from its curriculum standards"; and the headline of the [story](#) [9] in the *Austin American-Statesman* (January 23, 2009) was "State board shuns disputed language on evolution."

And the momentousness of the vote was not lost on NCSE's executive director Eugenie C. Scott, who [explained](#) [10] in a January 23, 2009, press release: "The misleading language [in the original science standards] has been a creationist loophole in the science TEKS [Texas Essential Knowledge and Skills] for decades. Its removal is a huge step forward." Similarly, the Texas Freedom Network's Kathy Miller [commented](#) [11] in a January 23, 2009, statement, "This is a very important victory for sound science education. A board majority stood firmly behind 21st-century science and should be applauded." Even the Free Market Foundation — the state affiliate of Focus on the Family — in effect conceded the significance of the vote by issuing a [press release](#) [12] on January 22, 2009, expressing outrage at the vote and pointedly identifying the members of the board who voted for and against the amendment to restore the "strengths and weaknesses" language.

The victory was not complete, however. A flurry of amendments introduced by creationist members of the board sought to compromise the treatment of evolution in the biology standards. Terri Leo successfully proposed a revision to the standards to replace verbs such as "identify," "recognize," and "describe" in section 7 of the high school biology standards with "analyze and evaluate" — no other section of the standards was treated similarly. Worse, Don McLeroy successfully proposed a [revision](#) [13] to section 7 to require that students "analyze and evaluate the sufficiency or insufficiency of common ancestry to explain the sudden appearance, stasis and sequential nature of groups in the fossil record." It is significant that "sudden appearance" is a creationist catchphrase, associated in particular with young-earth creationist Wendell Bird. During oral arguments in *Edwards v. Aguillard*, for example, Jay Topkis [observed](#) [14], "those buzzwords come right out of Mr. Bird's lexicon. ... They're his."

Just as worrying were the amendments introduced by creationist members of the board that sought to compromise the treatment of evolution and related concepts in the earth and space science standards. Barbara Cargill successfully proposed [revisions](#) [15] (PDF) to the standards to add, in her words, "humility

and tentativeness"; in the [view](#) [16] of Steven Schafersman of Texas Citizens for Science, however, "All five of the changes ... are not needed and were proposed to weaken and damage the ESS TEKS." The worst change was to a requirement that students "evaluate a variety of fossil types, transitional fossils, fossil lineages, and significant fossil deposits with regard to their appearance, completeness, and rate and diversity of evolution," which now reads, "evaluate a variety of fossil types, proposed transitional fossils, fossil lineages, and significant fossil deposits and assess the arguments for and against universal common descent in light of this fossil evidence."

NCSE's Eugenie C. Scott, who was at the meeting and observed the board's confusion over these amendments, commented in NCSE's January 23, 2009, press release, "They didn't ... have time to talk to scientists about the creationist-inspired amendments made at the last minute. Once they do, I believe these inaccurate amendments will be removed." The Texas Freedom Network concurred, [observing](#) [17] on its blog, "Board members — none of whom are research scientists, much less biologists — appeared confused when they were asked to consider amendments with changes to specific passages of the standards. That's why it's foolish to let dentists and insurance salesmen play-pretend that they're scientists. The result is that the standards draft includes language that is more tentative. Not good, but not necessarily disastrous overall." With respect to McLeroy's revision, the TFN added, "What we saw is what happens when a dentist pretends that he knows more about science than scientists do."

All of the action — the vote not to restore the "strengths and weaknesses" language and the flurry of amendments from creationist members of the board apparently eager to salvage a small victory from the defeat — occurred on the second day of the board's meeting. On the third day, January 23, 2009, there was virtually no discussion as the board voted unanimously to adopt the science standards as revised on the previous day, without hearing any further comments from those in attendance. The vote, again, is only a preliminary vote, with a final vote on the standards expected at the board's March 26-27, 2009, meeting. The *Houston Chronicle* (January 23, 2009) [reported](#) [18], "Scientists vowed to fight the plan before the board takes final action in March"; since a [survey](#) [19] demonstrated that the vast majority of biologists at universities in Texas rejected the idea of teaching the supposed weaknesses of evolution, there ought to be no shortage of scientifically competent advice for the board to heed.

Reports in the press recognized that the overall result was a qualified victory for science, with the *Houston Chronicle* (January 23, 2009), for example, [reporting](#) [18], "Texas schools won't have to teach the weaknesses of evolution theories anymore, but the State Board of Education ushered in other proposed changes Friday that some scientists say still undermine evolution instruction and subject the state to ridicule," and reporting Steven Schafersman of Texas Citizens for Science as concerned that McLeroy's revision, if not reversed, would make the standards a laughingstock. David Hillis, a distinguished biology professor at the University of Texas at Austin, added, "This new proposed language is absurd. It shows very clearly why the board should not be rewriting the science standards, especially when they introduce new language that has not even been reviewed by a single science expert. He also [told](#) [20] *The New York Times* (January 24, 2009), "It's a clear indication that the chairman of the state school board doesn't understand the science."

In the same vein, editorials in Texas and nationally have praised the omission of the "strengths and weaknesses" language but lamented the creationist revisions. The *Austin American-Statesman* (January 24, 2009) seemed pleased if not excited about what it [termed](#) [21] "an incremental step away from dogma-driven curriculum decision-making," while the *Waco Tribune* (January 26, 2009) was happy about the omission of a phrase that "was meant to open the door to the undermining of evolution theory" but dismayed by McLeroy's revision, which it [described](#) [22] as "a fall-back attempt by the right wing of the

board to hang tough in its effort to undermine evolution theory." *The New York Times* (January 26, 2009), for its part, [editorialized](#) [23], "The lesson we draw from these shenanigans is that scientifically illiterate boards of education should leave the curriculum to educators and scientists who know what constitutes a sound education."

In addition to the newspaper reports cited above, a variety of on-line sources provided detailed, candid, and often uninhibited running commentary on the proceedings: [Texas Citizens for Science](#) [24]'s Steven Schafersman blogged, and posted photographs, on the *Houston Chronicle's* [Evo.Sphere blog](#) [25], the [Texas Freedom Network](#) [26] was blogging on its [TFN Insider blog](#) [27], NCSE's Joshua Rosenau was blogging on his personal blog, [Thoughts from Kansas](#) [28] (hosted by [ScienceBlogs](#) [29]), and the *Houston Press* [blogged](#) [30] the first day of the meeting. For those wanting to get their information from the horse's mouth, [minutes](#) [31] and [audio recordings](#) [32] of the board meeting will be available on the Texas Education Agency's website. NCSE's previous reports on events in Texas are [available](#) [33] on-line, and of course NCSE will continue to monitor the situation as well as to assist those defending the teaching of evolution in the Lone Star State.

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[4] [http://www.dallasnews.com/sharedcontent/dws/news/localnews/stories/DN-evolution\\_23tex.ART.State.Edition2.4e8893c.html](http://www.dallasnews.com/sharedcontent/dws/news/localnews/stories/DN-evolution_23tex.ART.State.Edition2.4e8893c.html)

[5] <https://ncse.com/news/2009/01/whats-next-texas-science-standards-004222>

[6] <http://www.mysanantonio.com/news/education/38199699.html>

[7] <http://www.mysanantonio.com/opinion/commentary/36146419.html>

[8] <http://www.chron.com/commons/readerblogs/evosphere.html?plckController=Blog&plckScript=blogScript&plckElementId=blogDest&plckBlogPage=BlogViewPost&plckPostId=Blog%3af12fd84e-253f-46cf-9408-ee579f9a3a0bPost%3aa545edc9-889f-410e-be8f-a3fe72c67b86>

[9] <http://www.statesman.com/news/content/news/stories/local/01/23/0123sboe.html>

[10] <https://ncse.com/news/2009/01/weaknesses-removed-from-texas-science-standards-004231>

[11] <http://www.tfn.org/site/News2?page=NewsArticle&id=5675>

[12] [http://www.freemarket.org/News\\_PressRoom\\_CurrentPressRelease.aspx](http://www.freemarket.org/News_PressRoom_CurrentPressRelease.aspx)

[13] <http://www.texscience.org/pdf/mcleroy-biology-amendments.pdf>

[14] [http://www.oyez.org/cases/1980-1989/1986/1986\\_85\\_1513/argument/](http://www.oyez.org/cases/1980-1989/1986/1986_85_1513/argument/)

[15] <http://www.texscience.org/pdf/cargill-ess-amendments.pdf>

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[17] <http://tfnblog.wordpress.com/2009/01/22/texas-sboe-science-debate/>

[18] <http://www.chron.com/disp/story.mpl/front/6227807.html>

[19] <http://www.tfn.org/site/PageServer?pagename=2008BiologyReport>

[20] <http://www.nytimes.com/2009/01/24/education/24texas.html>

- [21] [http://www.statesman.com/opinion/content/editorial/stories/01/24/0124sboe\\_edit.html](http://www.statesman.com/opinion/content/editorial/stories/01/24/0124sboe_edit.html)
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