

## EVOLUTION

### *American Genesis: The Evolution Controversies from Scopes to Creation Science.*

By Jeffrey P. Moran. 2012. Oxford University Press. (ISBN 9780195183498). 196 pp. Hardcover. \$29.95.

At this point in the Culture Wars, or the War on Science, or whichever rift is restraining the success of American students, perhaps it is time to amend Theodosius Dobzhansky's maxim to "Nothing makes sense in light of evolution; nothing in creation science makes sense." In *American Genesis*, Jeffrey P. Moran deconstructs the schism that started with the Scopes trial and shows us that science, with science education on its coattails, has been maligned by an array of cultural influences that have created a divide in this country that may never heal.

Moran starts by looking at how the anti-evolution movement convoluted the women's rights movement. (He uses the term "anti-evolution" as opposed to "creationist," because it began as an oppositional faction, and creation science was developed later in a series of repeatedly failed attempts to confront evolutionary theory itself.) By prescribing gender-based attributes to science and religiosity, the anti-evolutionists implicated the changing role of women in society. Even more so, Christian men were "pushed into fighting Darwinism as a way of solidifying their masculine identity." Clearly, ideology fueled the development of the anti-evolution movement, as evolution was depicted as a liberal philosophy rather than an explanation of life's diversity and unity. In a similar vein, the acceptance of evolution was entangled in the civil rights movement, as W. E. B. DuBois connected the future of his race to the secular forces of scientific progress. African American religious leaders were quick to point out their fundamentalism and press for their congregants

to reject evolution. However, in both social conflicts, evolution can be applied as a force for fairness, with men equal to women, and all men created equal, with that verb used loosely.

By the time 20th-century Southerners embraced their heritage to the point of calling themselves Neo-Confederates, the "problem" of evolution was not one of scientific veracity. Moran considers regionalism the third major thorn in the side of American progress. Not only did Northerners portray Southerners as rural and intolerant, but also, the South embraced the role with rampant anti-intellectualism. Isolationism was taken to the extreme, with racism, sexism, and religion leading to a South dominated by anti-evolutionist, white Christian males.

While YouTube clips featuring confident scientists running circles around anti-evolutionists abound, it is hard to say whether the picture that Moran paints is reassuring or not. On one hand, there is an odd comfort in knowing that there is a history of backlash that should be able to be quelled with enough modern thinking in terms of civil rights and forward thinking. On the other hand, one may be concerned that this ideology may be too entrenched to confront, at least in the classroom.

According to Moran (among others), the classroom is the battleground for this conflict. It is unclear what "genesis" he is referring to in the title of his book. Maybe the earnest confrontation of anti-evolutionist attitudes is setting the scene for a cultural revolution. Groups like the National Center for Science Education are now the watchdogs not only for fighting anti-evolutionism, but also for promoting reasonable science education. The Internet is ablaze with science blogs in the same vein; Moran even cites the Flying Spaghetti Monster, Bobby Henderson's inane character during an Intelligent

Design flare-up in the 1980s. Would there have been a similar long-lasting skirmish over gravity or atomic theory, given the cultural influences? Considering the stubbornness of the anti-scientific opposition, one may conclude so. *American Genesis* is a fair presentation of the history of the "controversy" that is evolutionary theory. Seeing no need to address a debate over the science, Moran delves deep enough into the history to make a convincing case for a strident ideological wedge – the one that the Discovery Institute hoped to drive between Americans of all different backgrounds, regardless of intellect. His book belongs on the shelf of every science teacher and professor in this country, to remind us of the struggle that continues to lead us to fight for everything from curricular standards to open-minded students.



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## TEACHING

*Transformations: Approaches to College Science Teaching.* By Deborah Allen and Kimberly D. Tanner. 2009. W.H. Freeman. (ISBN 9781429253352). 284 pp. Cloth. \$21.95.

Can we model scientific practice better through conscientious course design and lecture strategies? *Transformations* is an up-to-date source book that addresses this question with teaching ideas drawn from the primary literature of the scholarship of teaching and learning (SoTL) and accumulated teacher lore