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# Creationists and science in schools

*Creation science has rightly been denied a licence in Arkansas on the grounds that it is religion in disguise. The educational implications are even more sinister.*

The creationists may have lost the battle in Arkansas, but they are unlikely now to abandon the war on which they are engaged. Science educators everywhere, but especially in the South, had better reconcile themselves to that. The United States courts are notoriously a means by which determined if misguided people can refuse to accept the inevitable, creating confusion and widespread nuisance. In the circumstances, it is important that everybody should be clear what the war is about. It is not a war about the validity of Darwinism, however understood and glossed. Nor is it a war between religion and science, for some of the most influential evidence against the creationists in Judge William Overton's court came from religious people anxious to dissociate themselves from the claims of the creationists. The underlying dispute is between a small section of the religious community in the United States to whom the evolutionary view of the world, inanimate and living, is anathema. The claim that "creation science" should be taught alongside orthodox evolution as if, too, were science is both preposterous and disingenuous.

The richest irony in the creationists' case is the attention that it pays to the supposed flaw in Darwinism, which is alleged to be unfalsifiable experimentally. By what logic can it be held that because Darwinism is unfalsifiable in some technical (and disputed) sense, a set of hypotheses which is in the same sense falsifiable and amply falsified should be given equal time in the curriculum of the public schools of Arkansas and elsewhere? How, in the side-by-side science lessons for which they have been asking, would the creationists deal with questions such as the presence in the Earth's crust of lead isotopes which have apparently accumulated over the past 4,500 million years? By asserting that the technically falsifiable but amply verified explanation of radioactive decay is also false? And in that case, why should the proportions of radiogenic and nonradiogenic lead have been created at some later time in such a way as to mimic the effects of geochemical differentiation? To fool us? Or to show that the Creator was a good geophysicist? Most religious people rightly and consistently dismiss such questions as irrelevant, arid and even sacrilegious.

Other educational questions remain. Although the chief basis of Judge Overton's decision was that the state law he struck down was unconstitutional by providing a disguise for religious teaching, in many ways its requirements of science teachers were a more sinister threat to good sense. For teachers who are not allowed to tell what they consider to be the truth and who are required to tell lies are necessarily bad teachers. How are these epitomes of duplicity to be trained? Or is it thought, in Arkansas and elsewhere, that the teaching of science consists of the recitation of facts by teachers and feats of memory by students? Legally, what Arkansas had planned to ask of its teachers was an offence against the First Amendment. The damage that Arkansas had unthinkingly proposed inflicting on the education of its young people would have cast a longer shadow. When the issue of creationism in the schools comes up next, in Louisiana or wherever, the educational folly of giving equal time and place to a literal interpretation of *Genesis* should be given as much attention as its constitutional impropriety.

At the same time, some thought should be given to the way in which an over-literal interpretation of the constitutional interdiction against religious teaching in the public schools is itself

an impoverishment of American education. *Genesis* may be a pack of lies, or of allegories, but it is also an important part of the cultural heritage. So, too, is the Koran. Is it necessary that these important topics should be forever ignored, or relegated to "Eng. Lit." or fuzzy courses such as "the world about us" simply because school boards fear they may be accused of propagating religious views? For that matter, should the history of the world outside the Americas continue to be considered suitable only for colleges and universities? It is unlikely that the creationists now pushing for creation science would be mollified by concessions along these lines. But school boards throughout the United States should not think that Judge Overton's judgement is an all-round endorsement of the present curriculum.

## Selling off telephones

*Settlement of the anti-trust suit against AT&T will change the company — and the world*

The Justice Department in the United States has followed the only sensible course by agreeing to stop its long-standing action against the world's largest company, American Telephone & Telegraph Company (AT&T). The basis of the complaint, that the dominant telephone company in the United States has used its profits from one kind of service (long-distance telephone calls for example) to subsidize other services (local telephone services) has in any case been overtaken by events. In a long succession of decisions in the past decade, the Federal Communications Commission has balanced a relaxation of the rules restricting regulated telephone companies (such as AT&T) from entering unregulated business (such as data transmission) with increasingly explicit rules against cross-subsidies. If the judgement in the suit had gone against the company, it would have seemed a nonsense in present circumstances — and would have left unresolved the question of what, in any case, should happen to AT&T. Only the lawyers would have profited.

So does last week's settlement presage the most radical transformation of American industry since Standard Oil of New Jersey was broken up in 1911? Not necessarily. AT&T has undertaken to sell off its interests in those local and regional telephone companies across the United States which at present deal directly with local customers. It will retain its long-distance network and will also win the right to compete directly with other companies in the telecommunications business, both domestically and overseas. Perhaps more important in the long run, the company will retain control of the Bell Laboratories (and of its manufacturing subsidiary, Western Electric). This formidable technological enterprise has hitherto functioned partly with one hand tied behind its back. Plainly the company is now gambling on the chance that even though its assets will be reduced by nearly two-thirds, it will be able to grow more quickly when disencumbered of the unprofitable telephone companies. Three uncertainties lie ahead. The process of divestment may be more difficult than foreseen. Congress and the courts may decide that they do not like the settlement, or some parts of it. And the fields that AT&T hopes to enter are already partly occupied by other unregulated telecommunications companies. (There would