Evolution in the classroom

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Mark Mercer
Department of Philosophy
Saint Mary's University
Halifax, NS B3H 3C3
(902) 420-5825
mark.mercer@smu.ca

Why not teach Intelligent Design in elementary or high school biology classes? Because it's false, because it's not science, because it's religion—these are some of the more popular answers to our question. None is especially good.

What we want from biology class is that pupils gain a sound understanding of evolution by natural and sexual selection. We want them to understand how selective pressures cause traits to spread or fail to spread throughout a population of organisms and how these pressures can give rise to new species. That is, we want that they acquire the ability to encounter the natural world in the ways a contemporary biologist does.

What we ought not to want is that pupils believe that in fact species do evolve by means of natural and sexual selection. We ought to be completely indifferent as to whether they accept the theory as true. All we want, that is, is that they understand the theory and can apply it correctly to biological phenomena.

To insist—even to ask—that pupils in a biology class believe what they are taught is to coerce them into a world view. We should, instead, want to give them the tools required to choose or to construct a world view for themselves.

Think of a class in world religions. It is no part of such a class that pupils come to believe the core doctrines of the religions they study, or that they come to hold any religious beliefs at all. The class does what it should when pupils come to understand the various religions they study, and to understand the various psychological, sociological, or anthropological theories of them their teacher presents. To ask them to believe anything is to try to indoctrinate them into, or out of, religion. Likewise, to ask pupils in a biology class to believe anything they are taught is to indoctrinate them into science.

Worse than that, it is to instil in them deference to authority—or, at least, it's to put them at risk of becoming deferential to authority. It's to encourage them to find acceptance among others by conforming to the beliefs and strictures of the group. It's to seek to render them closed-minded and dogmatic.

Of course, studying biology might have as a consequence that one comes to believe that species evolve by means of natural and sexual selection. That consequence, though, is neither to be welcomed nor to be resisted by the teacher or the school. If the school is doing what it should be doing—assisting children to become adults who can think for themselves and contribute meaningfully to community life—, then instruction in that school aims to have the children understand ideas within a subject. It doesn't aim to have children accept or believe anything.

If a teacher in a biology class thinks that by considering Intelligent Design her charges will acquire a deep and firm understanding of Darwinian evolution, then by all means she should teach them Intelligent Design. Her justification lies in her results. If her pupils understand evolution by natural and sexual selection as well as they should, she has taught them well, and maybe teachers who have done less well should follow her lead.

"—But Intelligent Design is false." Sure, but that's neither here nor there. The question for the teacher is whether introducing it would be useful to her in securing her proper goals.

"—But it's not science." Why should we care that it's not? Questions of classification are pointless at best. Take two lists, one of all the things you know, the other of all the things you know slotted into categories. The second list is no better than the first, and might well be worse.

"—But it's religion, not science." Is the point of this objection our fear that our children will become religious? And yet, being neither dogmatic nor deferential ourselves, we should be as happy to risk that through exposure to religious ideas our children acquire religious beliefs as we are happy to risk that we ourselves do. What we don't want is that they come to be religious through psychological or social pressure.

Canada, happily, has so far and for the most part avoided the evolution wars that have plagued the United States. "Happily," because both sides in those wars have been trying to turn education into indoctrination. The factors that account for our having avoided the wars are many and various. But to ensure that the evolution wars will continue to claim no Canadian schoolchildren as casualties, we should explicitly reject the idea that education is indoctrination, even if indoctrination into true beliefs. We should reject indoctrination as a central part of our commitment to broadening our children's understandings of things.

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[May 2009: I've added the following paragraphs in response to comments the original article provoked.]

My contention about the practice of teaching is that no authority should require that biology teachers not introduce Intelligent Design when discussing evolution (or anything else). There's nothing within this contention about equal time for both theories—far from it, as no one need introduce Intelligent Design at all. Moreover, there's nothing in the article about teaching the controversy regarding Intelligent Design. Of course, biology teachers ought not be preventing from teaching the controversy, but all we should insist on is that their pupils come to understand the theory of evolution by natural and sexual selection.

Science teachers, I'm saying, shouldn't be barred from introducing their pupils to Thales or Homer—or, even, Velikovsky. Leave it up to them. We are to ask only the extent to which their pupils understand whatever science it is that they are supposed to understand.

I gave two other, more general, theses. One is that authorities can properly set ends but should leave the means up to those charged to attain the ends. (The end in this case is an understanding of evolution appropriate to the pupil's grade.) The other is that belief or acceptance is never a proper goal of education. Understanding is the proper goal.

The first of the two general theses can be criticised as favouring the pursuit of the best over the prevention of the worst, the best being an enriching and empowering education for children, the worst being children who understand nothing and care even less. I accept the point and I might agree that it's a criticism, so long as the low opinion of primary and secondary school teachers on which it rests is sound. Too many bad teachers and we had better prescribe means as well as ends if we're serious about attaining the ends.

I wonder, though, whether too many bad teachers is a result of administrators and others overseeing means as well as ends.

The second general thesis, that belief is not a proper goal of education, can be criticised as specious, for there's no understanding without some acceptance or belief. Again I accept the point but might not agree that it's a criticism. Just at the level of example, it's fairly easy to distinguish between understanding a religion and accepting it or understanding an interpretation of a book and accepting it. I would take this even further, into science and math. I understand that 1 + 1 = 2. That is, I know how to add. Do I believe that 1 + 1 = 2? I'm not sure. (I'm not sure what I would be believing.)

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