

Guest Columnist Paul Bloom
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Worse than Creationism

Evolution, Neuroscience, and the Responsibility of Psychologists

Reality often clashes with common sense. Sometimes reality wins — most people believe that the world is not flat, although it certainly seems to be — and sometimes it does not. There are two important cases where common sense leads to popular beliefs that scientists tell us are demonstrably false.

The first concerns the origins of species. A poll conducted in July found that 42 percent of the respondents believe that “living things have existed in their present form since the beginning of time.” Many of the rest said that evolution occurred, but was guided by a supreme being. Only 26 percent claimed to believe in natural selection.

My own sense is that such a poll actually overestimates scientific literacy. Many people who say that they believe in natural selection do so only because this is what educated people are supposed to say. If pressed, they often have no idea what the theory actually is, frequently confusing it with the notion that some mysterious force drives species to be increasingly complex and better adapted to their environments.

As the biologist Richard Dawkins put it, it is almost as if the human brain is designed to misunderstand evolution. Darwin’s explanation of how a non-intentional process can give rise to complex things like eyes, trees, and tigers might well be the greatest scientific discovery ever, but it makes little intuitive sense. What our gut tells us is that complex design requires an intelligent designer. This intuition emerges early in development; children tend to be even more creationist than their parents.

The second clash between common sense and reality concerns how we think about minds and brains. There is considerable evidence that people are natural-born dualists; we see ourselves as non-material things, separate from our brains. Common sense tells us that conscious experience and free will can exist without a brain at all, making it possible for the self to survive the destruction of the body, perhaps

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ascending to heaven, descending to hell, joining the spirit world, or occupying some other body, human or animal.

One surprising consequence of this dualism is how fascinated people are with fMRI studies showing how the brain is active when subjects think about interesting things such as George Bush vs. John Kerry, Pepsi vs. Coca Cola, and whether it is right to push a fat man in front of a runaway trolley. I have nothing critical to say about these studies, but I think non-specialists are drawn to them for the wrong reasons. When they read in *The New York Times* about the patterns of neural activation corresponding to romantic love — “Watching New Love As It Searns the Brain” — I bet that few of them thought: *How astonishing! Who would have guessed that the caudate nucleus plays such a role!* Instead, they were intrigued that something as interesting and intimate as passion shows up in the brain at all.

Both intuitive creationism and intuitive dualism have social consequences. The widespread acceptance of creationism — and its better-adapted descendent, intelligent design — matters a lot for education, because decisions have to be made about how to teach biology to high school students. More generally, evolution is currently the main battleground in the clash between science and superstition. Those scientists and philosophers who defend evolutionary biology to the general public deserve a lot of credit.

But there is a difference between creationism and dualism. From the standpoint of law and public policy, creationism matters less. If every adult became a staunch Darwinian, it would make little difference for how we live our lives. Like the origin of the universe, the origin of the species is an issue of great intellectual importance and little practical relevance. In contrast, our beliefs about mind and brain matter a lot—they bear on such issues as abortion, stem-cell research, euthanasia, cloning, cosmetic psychopharmacology, and the legal definition of insanity.

A dualist world-view, for example, makes it sensible to draw sharp lines with regard to abortion and animal rights,

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APSSC Announcements

RiSE-UP Wants You!

Psychological research on underrepresented populations is expanding and we want you to join APSSC as a RiSE-UP committee member!! Over 30 people have joined a committee this year! As a member you will have the opportunity to review entries from the RiSE-UP research competition and other exciting projects that aim at bringing awareness of underrepresented populations to your campus! For more information please e-mail RiSE-UP Coordinator, Monique Mendoza, at riseup.coordinator@gmail.com.

Mentorship Program Announcement

The APSSC Mentorship Program hosts a communication network between undergraduate and graduate students in all areas of psychology to promote effective communication on topics related to research and graduate school. This year has really gotten off to a great start. The number of program members increased about 15 percent between May and September! To find out how you can become a part of this growing community, please contact Fran at chumney_apssc@hotmail.com.

Review for an APSSC Competition

Take advantage of this unique opportunity to gain valuable experience. The APSSC needs people to review for the Student Grant Competition and/or the Student Research Competition. Reviewing is not a huge time commitment and looks great on your vita. For more information, contact the Graduate Advocate, Andrew C. Butler at butler79@gmail.com.

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differentiating creatures on the basis of whether or not they have souls. It also makes possible a distinction between actions caused by a person and those caused by a brain, leading to the excuse we can call — to use Michael Gazzaniga's nice phrase — "My brain made me do it."

The problem is that dualism is mistaken. Science tells us that the brain is the source of mental life. While there is no accepted theory as to how a physical thing can give rise to conscious experience — and some scholars are skeptical that we will ever have such a theory — it is clear that Cartesian dualism is wrong, as wrong as creationism.

Psychologists have not been shy about reporting theo-

ries and results to the general public, but we have been mostly silent about this foundational discovery about mental life. Our reticence is understandable. The scientific conception of the mind will not be received cheerfully; dualism is common sense, it is intimately linked to religion, and it is the foundation of the very comforting belief that there is an afterlife. But we should talk about it anyway, in part for intellectual reasons and in part because it matters for law and policy — debates over issues such as abortion and legal responsibility should be informed by what scientists know about the mind. Such issues are too important to leave entirely in the hands of lawyers, politicians, and theologians. ♦