June 26, 2007

Science of the Soul? ‘I Think, Therefore I Am’ Is Losing Force

By CORNELIA DEAN

In 1950, in a letter to bishops, Pope Pius XII took up the issue of evolution. The Roman Catholic Church does not necessarily object to the study of evolution as far as it relates to physical traits, he wrote in the encyclical, Humani Generis. But he added, “Catholic faith obliges us to hold that souls are immediately created by God.”

Pope John Paul II made much the same point in 1996, in a message to the Pontifical Academy of Sciences, an advisory group to the Vatican. Although he noted that in the intervening years evolution had become “more than a hypothesis,” he added that considering the mind as emerging merely from physical phenomena was “incompatible with the truth about man.”

But as evolutionary biologists and cognitive neuroscientists peer ever deeper into the brain, they are discovering more and more genes, brain structures and other physical correlates to feelings like empathy, disgust and joy. That is, they are discovering physical bases for the feelings from which moral sense emerges — not just in people but in other animals as well.

The result is perhaps the strongest challenge yet to the worldview summed up by Descartes, the 17th-century philosopher who divided the creatures of the world between humanity and everything else. As biologists turn up evidence that animals can exhibit emotions and patterns of cognition once thought of as strictly human, Descartes’s dictum, “I think, therefore I am,” loses its force.

For many scientists, the evidence that moral reasoning is a result of physical traits that evolve along with everything else is just more evidence against the existence of the soul, or of a God to imbue humans with souls. For many believers, particularly in the United States, the findings show the error, even wickedness, of viewing the world in strictly material terms. And they provide for theologians a growing impetus to reconcile the existence of the soul with the growing evidence that humans are not, physically or even mentally, in a class by themselves.

The idea that human minds are the product of evolution is “unassailable fact,” the journal Nature said this month in an editorial on new findings on the physical basis of moral thought. A headline on the editorial drove the point home: “With all deference to the sensibilities of religious people, the idea that man was created in the image of God can surely be put aside.”

Or as V. S. Ramachandran, a brain scientist at the University of California, San Diego, put it in an interview, there may be soul in the sense of “the universal spirit of the cosmos,” but the soul as it is usually spoken of, “an immaterial spirit that occupies individual brains and that only evolved in humans — all that is complete nonsense.” Belief in that kind of soul “is basically superstition,” he said.

For people like the evolutionary biologist Richard Dawkins, talk of the soul is of a piece with the rest of the palaver of religious faith, which he has likened to a disease. And among evolutionary psychologists, religious faith is
nothing but an evolutionary artifact, a predilection that evolved because shared belief increased group solidarity and other traits that contribute to survival and reproduction.

Nevertheless, the idea of a divinely inspired soul will not be put aside. To cite just one example, when 10 Republican presidential candidates were asked at a debate last month if there was anyone among them who did not believe in evolution, 3 raised their hands. One of them, Senator Sam Brownback of Kansas, explained later in an op-ed article in this newspaper that he did not reject all evolutionary theory. But he added, “Man was not an accident and reflects an image and likeness unique in the created order.”

That is the nub of the issue, according to Nancey Murphy, a philosopher at Fuller Theological Seminary who has written widely on science, religion and the soul. Challenges to the uniqueness of humanity in creation are just as alarming as the Copernican assertion that Earth is not the center of the universe, she writes in her book “Bodies and Souls or Spirited Bodies?” (Cambridge, 2006). Just as Copernicus knocked Earth off its celestial pedestal, she said, the new findings on cognition have displaced people from their “strategic location” in creation.

Another theologian who has written widely on the issue, John F. Haught of Georgetown University, said in an interview that “for many Americans the only way to preserve the discontinuity that’s implied in the notion of a soul, a distinct soul, is to deny evolution,” which he said was “unfortunate.”

There is no credible scientific challenge to the theory of evolution as an explanation for the diversity and complexity of life on earth.

For Dr. Murphy and Dr. Haught, though, people make a mistake when they assume that people can be “ensouled” only if other creatures are soulless.

“Evolutionary biology shows the transition from animal to human to be too gradual to make sense of the idea that we humans have souls while animals do not,” wrote Dr. Murphy, an ordained minister in the Church of the Brethren. “All the human capacities once attributed to the mind or soul are now being fruitfully studied as brain processes — or, more accurately, I should say, processes involving the brain, the rest of the nervous system and other bodily systems, all interacting with the socio-cultural world.”

Therefore, she writes, it is “faulty” reasoning to want to distinguish people from the rest of creation. She and Dr. Haught cite the ideas of Thomas Aquinas, the 13th-century philosopher and theologian who, Dr. Haught said, “spoke of a vegetative and animal soul along with the human soul.”

Dr. Haught, who testified for the American Civil Liberties Union when it successfully challenged the teaching of intelligent design, an ideological cousin of creationism, in the science classrooms of Dover, Pa., said, “The way I look at it, instead of eliminating the notion of a human soul in order to make us humans fit seamlessly into the rest of nature, it’s wiser to recognize that there is something analogous to soul in all living beings.”

Does this mean, say, that Australopithecus afarensis, the proto-human famously exemplified by the fossil skeleton known as Lucy, had a soul? He paused and then said: “I think so, yes. I think all of our hominid ancestors were ensouled in some way, but that does not rule out the possibility that as evolution continues, the shape of the soul can vary just as it does from individual to individual.”

Will this idea catch on? “It’s not something you hear in the suburban pulpit,” said Dr. Haught, a Roman Catholic
whose book “God After Darwin” (Westview Press, 2000) is being reissued this year. “This is out of vogue in the modern world because the philosopher Descartes made such a distinction between mind and matter. He placed the whole animal world on the side of matter, which is essentially mindless.”

Dr. Haught said it could be difficult to discuss the soul and evolution because it was one of many issues in which philosophical thinking was not keeping up with fast-moving science. “The theology itself is still in process,” he said.

For scientists who are people of faith, like Kenneth R. Miller, a biologist at Brown University, asking about the science of the soul is pointless, in a way, because it is not a subject science can address. “It is not physical and investigateable in the world of science,” he said.

“Everything we know about the biological sciences says that life is a phenomenon of physics and chemistry, and therefore the notion of some sort of spirit to animate it and give the flesh a life really doesn’t fit with modern science,” said Dr. Miller, a Roman Catholic whose book, “Finding Darwin’s God” (Harper, 1999) explains his reconciliation of the theory of evolution with religious faith. “However, if you regard the soul as something else, as you might, say, the spiritual reflection of your individuality as a human being, then the theology of the soul it seems to me is on firm ground.”

Dr. Miller, who also testified in the Dover case, said he spoke often at college campuses and elsewhere and was regularly asked, “What do you say as a scientist about the soul?” His answer, he said, is always the same: “As a scientist, I have nothing to say about the soul. It’s not a scientific idea.”