

Evolution and religion

SIR — Vaneechoutte¹ criticizes Josephson² for saying: “. . . the central theme of religion is the attempt to maximize human goodness” and Baidins³ for holding that religion helps people to “make more constructive decisions. . .”.

Vaneechoutte prefers “to look at religion as an emergent characteristic, which can arise only after other levels have come to full development”. It is only proper to acknowledge that there are informed but diverging opinions on this issue.

“Religion . . . is the opium of the people” (Marx). Not bad, but this does not explain its evolutionary value. Why should people tend to believe in religions regardless of facts? Most Americans still regard the biblical account of creation as more probable than the scientific one.

But where is the selective advantage in believing something that is not in agreement with observations? In the first place, when people are bound by religion they stick together. Poland's identity through the centuries was preserved by its Catholicism. Religion in Russia was not extinguished by 70 years of official atheism and religious oppression.

But there is more. Bondi⁴ remarks “The past as well as the present can leave no doubt that the variety of religions is a calamitously divisive force in human affairs”. But of course. That's the whole point of religion; that is what provides its evolutionary advantage. When religion divides “us” from “them”, God then tells “us” to kill “them”.

In Deuteronomy 20:16, God gives the Hebrews their marching orders: “But of the cities of these people, which the Lord God doth give thee for an inheritance, thou shalt save alive nothing that breatheth.” Soon thereafter we find Joshua 6:21 on the fate of Jericho: “And they utterly destroyed all that was in the city, both man and woman, young and old, and ox, and sheep, and ass, with the edge of the sword.”

Pascal was surely right when he said: “Men never do evil so completely and cheerfully as when they do it from religious conviction.” It's neither easy nor fun to slaughter large numbers of innocent men, women and children; but God says it has to be done, and thereby, one way or another, our genes replace theirs. “Death to the infidel!” Compare the success of the Arab tribes before and after Mohammed, AD 632.

A religion has to be sufficiently believable to attract a lot of converts: “God is always for the big battalions” (Voltaire). Yet it must be sufficiently unbelievable that there are still plenty of infidels — otherwise whom would we have to conquer?

A successful religion must also make

death attractive so that its soldiers will fight fearlessly. In Islam a man slain in battle can expect to dine that evening with Mohammed in Paradise and to be issued with some hours. Christian soldiers get a pretty good deal too, but painted in more abstract terms.

One need not indulge in teleological or theological considerations to understand that in mankind the evolutionary mechanism, which is differential reproduction, is largely guided and powered by religion.

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SIR — I have two objections to the views of Vaneechoutte¹ that human superintelligence has left us vulnerable to “endless fear and longing”, that we differ from other animals in this respect, that memes such as religion and astronomy are natural defensive measures that help us to feel more secure and in control — and that we often resort to nonmemetic solutions such as drugs and overeating.

First, the dividing line between humans and other animals is not as sharp as Vaneechoutte implies. Studies of great apes and monkeys have demonstrated their vulnerability to serious depression and chronic emotional stress. In chimpanzees (*Pan troglodytes*), for example, a youngster whose mother has died may display behaviour that closely resembles human depression⁵, and in olive baboons (*Papio cynocephalus*) a male's subordinate status may be accompanied by high basal corticosteroid levels and behaviour that characterize the syndrome of chronic emotional stress in humans⁶. As cognitive skills increase in phylogeny, the potential for complex modulation of affect also appears to increase, with no sharp dividing line. As Stephen Jay Gould has aptly stated in a different context, nature abhors boundaries.

Second, evolution may indeed have made us “naturally unhappy organisms”, as Vaneechoutte asserts, but I suggest that this is only part of the story. It seems likely that large brains enable us to have complex positive feelings too, such as a sense of personal fulfilment, the elation of pair-bonding, and love. One important variable here is mental health. If one assumes a hypothetical mental health continuum, it is easy to imagine a preponderance of dysphoria and depression at the one end and a sense of well-being and ‘happiness’

at the other. Affective states along the entire continuum are products of complex brains.

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SIR — Bondi⁴ presents the “incontrovertible” argument that because the views of those holding different religious faiths contradict each other, then only one at most can be right. It is interesting to note that this is also the traditional Judaeo-Christian belief. Underpinning that religious belief is the conviction that there is such a thing as absolute truth, and indeed that there is also untruth. The very act of doing science is predicated on the same acceptance that some things are true and others untrue. There is no inconsistency between holding the Christian faith and being a scientist.

That people have done, and continue to do, unbelievably cruel and evil things to other people is, sadly, only too clear. That such things have sometimes been done in the name of religion should be a cause of shame in all of us. But they are more a reflection of human nature than of particular religious views. The Holocaust and the burning of one's perceived religious enemies were undoubtedly evil; the Christian perspective is that so too is the social injustice in our country, the domestic violence in our homes and the petty selfishness in our everyday lives.

Though we agree with Bondi that the universal and global enterprise of science can in a unique way unite people of different race, culture and background, we believe that science can never address the problem of evil which is a universal feature of the human condition. Only religion claims to do that.

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SIR — Bondi⁴ errs in implying that, because religions are mutually exclusive, most religious people are wrong and that every religion should therefore be mistrusted (*Nature* 365, 484; 1993). His error lies in presuming that man is the only agent involved in the choosing of a religion — when religion concerns an omnipotent God having a freedom and volition of his own. His argument assumes what it sets out to prove.

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3. Baidins, A. *Nature* 346, 693 (1990).
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6. Sapolsky, R. & Ray, J. C. *Am. J. Primat.* 18, 1–13 (1989).