

Understanding religion

SIR — May I set out the prolegomena for any consideration of the religion–science relationship?

First, the obvious distinction must be made between scientific method and scientific cosmology. If we accept scientific method as the most refined and sophisticated use of our intellectual capabilities, then of course the study of religion must be as subject to its discipline as any accepted branch of science. The antithesis between science and faith is based on a misunderstanding.

Second, certain aspects of our mind must in some way be excluded from the strict causality embraced by all traditional scientific disciplines (including modern statistical versions of the older atomic cosmology). This is what I understand to have been proved by Gödel's theorem, although, if my understanding is challenged, I need only fall back on the old paradox that if strict causality rules, then this applies to present discussions, and scientific objectivity has no meaning. This is the paradox to which I believe Gödel gave mathematical expression. It is also for this reason that hypotheses such as that of Mario Vaneechoutte (*Nature* 365, 290; 1993) may contain truth but not the whole truth.

Third, the scientific study of the phenomena linked to 'religion' requires, like any other scientific discipline, years of both theoretical and practical study. Until we have embarked on this, our criticisms can be only at the level of the character in the Aldous Huxley story who happily refuted the theory of relativity on the basis that there is no room for a fourth right angle.

Bertrand Russell, when asked what he would say if, when he died, he found that there was after all a God, replied that he would ask: "Why did you not give us the data, Lord?" But the data are there, and no more esoteric than, say those of astrophysics or molecular biology to an 18-year-old student studying sociology.

One problem in approaching the subject is the missionary zeal of all 'religious' denominations, whose main technique has always been to inculcate guilt. Because their overlay of competing dogmas presents such an easy target through which to defend ourselves from guilt feelings (some of which derive from childhood education), the effect is to hinder rather than to promote understanding.

Some of us may be without the capacity (which may correlate imperfectly with measures of IQ) and others without the drive and perseverance to embark on the journey towards religious understanding. But those who might make the attempt should not be deterred by criticism arising from ignorance but presented under the

guise of science. What was said centuries ago is worth repeating: that counterfeit coin can circulate only because real money exists.

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SIR — If our brains had not given us a fairly reliable picture of the world as it really is, we would probably have been eliminated by natural selection in favour of a species possessing one that did.

It is therefore disturbing to reflect on the paradox outlined by R. H. Good (*Nature* 366, 296; 1993) arguing — to my mind convincingly — that holding an almost certainly false religious belief confers a decided biological advantage in inter-tribal conflict. However, fortunately for us, it is probable that this advantage is overborne by the technological superiority gained by those who subscribe to scientific principles: for example, the West's development of the atom bomb more than compensated for its lack of belief in a God Emperor in bringing the Second World War to an end.

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SIR — Friedrich Katscher (*Nature* 367, 677; 1994) asks if there is scientific proof that Jesus turned water into wine and, of course, there isn't. No tangible evidence remains from that miracle and no scientific investigation is possible. The lack of tangible evidence is a major problem for those wishing to subject the biblical miracles to scientific investigation.

However, all is not lost, for the Bible claims that God also used his supernatural powers miraculously to create matter, life and consciousness, and these are everywhere abundant. If they were truly created supernaturally, then it is reasonable to assume that their origins lie outside the scope of science to explain and the failure of science is predicted in this respect. The investigation of that prediction provides a powerful negative test of the truth of biblical miracles.

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SIR — I think perhaps M. Hammerton's zeal (*Nature* 367, 677; 1994) has somewhat clouded his logic.

Whatever one may think of the truth, or otherwise, of creationism, it remains true that thousands of professional scientists worldwide profess creationist beliefs. This

horrifies some and delights others, but the point is that the same could hardly be said of belief in a flat Earth, or the idea that cattle disease is the result of sorcery.

Besides, guilt by association is not a valid argument against creationism, or evolution for that matter — particularly when the association is, as in this case, spurious.

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SIR — In his article "Language for a polyglot readership" (*Nature* 359, 475; 1992), John Maddox raised the question of whether biblical and other Western cultural references should be avoided for non-European readers. My answer is no, as allusive writing is fun to read and motivates the reader to improve his or her understanding of the cultural side of the English language. On the other hand, it would be nice if people writing in *Nature* showed the same interest in foreign culture, and avoided the kind of comments published in "Praying for baby hamster's souls" (*Nature* 368, 486; 1994). Suggesting that the feeling of guilt is the reason for praying is at best a lack of curiosity. Moreover, as an agnostic, I find that giving a soul to a dead animal is as rational as giving one to a dead human. So why is *Nature* not making fun of Western prayers? For once, a British journal has confused humour with irony.

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SIR — The recent column by John Maddox "Defending science against anti-science" (*Nature* 368, 185; 1994) seems to reduce science to a proselytizing political ideology. Science, as a way-of-knowing, is not furthered by witch-hunting, rooting out of 'non-believers' and paranoia about other ways-of-knowing that challenge the received wisdom of the scientific establishment. It is wrong-headed to ask whether science should tolerate non-science. Simply put, there is no place for Torquemada in science. Science, at its best, relies on a free and curious spirit of inquiry, open methods, a readiness to admit and correct error and a sincere aversion to dogmatism. It questions everything (including its own processes), and avoids the Scylla and Charybdis of arrogance and partisanship, the sure death of the open mind. Science will make more progress by continuing its noble work, confident in its own abilities, rather than by defensive posturing against any perceived threats to its turf or its achievements.

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