

Building bridges

An American geneticist advocates a *rapprochement* with religion.

Public jousting between scientists and organized religion seems to have established itself as a consistent theme of the wider public discourse. Last week, it was the head of the Vatican's Pontifical Council for the Family letting it be known that researchers of the Catholic faith had better adhere to church doctrine on stem-cell research, or face possible expulsion. Next week it will be something else, and it will probably be in the United States, where relations between the two spheres have never been cordial and are becoming steadily less so.

To many scientists, religious contributions to public debates seem threatening and ill-considered. Religious leaders speak out against entire lines of enquiry — such as work on embryonic stem cells — in the name of God. They take stands against life-saving practices, such as condom use in areas of high HIV infection, in the name of morality.

Such contributions dismay the many scientists who are believers but who take a different doctrinal stance. They also irritate or enrage those (probably comparable in number) who are agnostics and atheists. After all, to many people, including scientists, the world simply makes more sense without the existence of God, and religious interventions are either offensive or irrelevant.

In response, some scientists are tempted either to publicly dismiss religious belief, or else to argue stridently against it. The latter approach is valuable in that it exposes religious dogmas to rational consideration and leads to their abandonment where they conflict with reality. But it is damaging if it fails to acknowledge the inability of science to deal with many of the issues that people face in their everyday lives.

An alternative response for believers and non-believers alike is to engage with people of faith to explore how science — both in its mode of thought and its results — is consistent with their religious beliefs. Many scientists have been quietly doing this for years. Their arguments are amplified by a new book from Francis Collins, director of the US National Human Genome Research Institute (see page 114).

In *The Language of God* (Free Press, 2006), Collins presents what he believes to be the counter-arguments to the doubts scientists have about God. He then expounds the rationale behind his own school of religious thought: theistic evolution, which posits that evolution is real, but that it was set in motion by God. He believes that it is the existence of God that explains certain aspects of humanity, such as self-sacrificing morality, as well as the fine-tuning of the fundamental constants that allow life to exist.

The book is unsparing in its criticism of both creationism and intelligent design. Both are false and unscientific, says Collins. He even argues that both ideas endanger religion itself, because they rest on such shaky ground that their backers risk losing credibility.

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Collins' style is straightforward, and even moving, especially when he discusses episodes from his own life, such as his difficulty coping with a sexual assault on his daughter. Even so, his reasons for believing in God and for becoming a devout Christian are unlikely to sway anyone who doesn't already believe.

But that's not the point. Collins is reaching out, from an exalted position in the world of science, to the realm of faith. By exploring, not least, how the Human Genome Project has added to our understanding of evolution, he hopes to provide a bridge across the social and intellectual divide that exists between most of US academia and the so-called heartlands, where religion is writ so large. Given the scale of the gulf, that is a laudable ambition. ■

The beautiful game

Punditry took a hiding in Germany.

One of the overriding messages from the World Cup that has just ended in Berlin is that football (that's soccer to our American readers) is almost impossible to predict. As a low-scoring game, it has an inherently stochastic quality that makes it gloriously exciting and palm-thumpingly frustrating in equal measure.

The struggle to anticipate World Cup results has taken many forms. In London, *The Guardian* newspaper attempted to verify the mantra of the Internet age that wisdom lies with the masses, inviting readers to vote for different betting options for each match. By the end of the tournament, the people made a profit, turning £250 (US\$460) into £356. However, the newspaper's pet goldfish, which chose its bets by swimming to different parts of its tank, put them to shame, ending up with £369.

A look at more 'scientific' efforts at prediction turns up similar

examples of painful hubris. A group of Norwegian mathematicians, for example, designed a computer model that simulated the complete tournament 2,000 times over (see www.nature.com/news). It predicted a Brazilian victory — but in reality, Brazil performed rather miserably and only made the quarter-finals.

Perhaps the tournament's least adroit piece of scientific punditry, however, came from Michael Shadlen, a neuroscientist at the University of Washington in Seattle. In an interview for *Nature's* online World Cup preview, he hailed French maestro Zinedine Zidane as the world's most intelligent footballer. Zidane certainly made his mark, winning the Golden Ball award as the tournament's outstanding player — before being sent off in Sunday's final for a disgraceful headbutt on an opponent. Not too clever, really.

At least Italian scientists can take heart from that bombastic finale. The country's footballers have returned home in glory as deserved champions, to face a match-fixing scandal that could see several of the clubs that employ them relegated in ignominy. But as researchers there can testify, flourishing in the face of official incompetence and corruption is just what all Italian professionals have to do, every day of the week. ■