

SCIENCE AND TECHNOLOGY NEWS | THE WEEK'S BEST IDEAS | US JOBS IN SCIENCE

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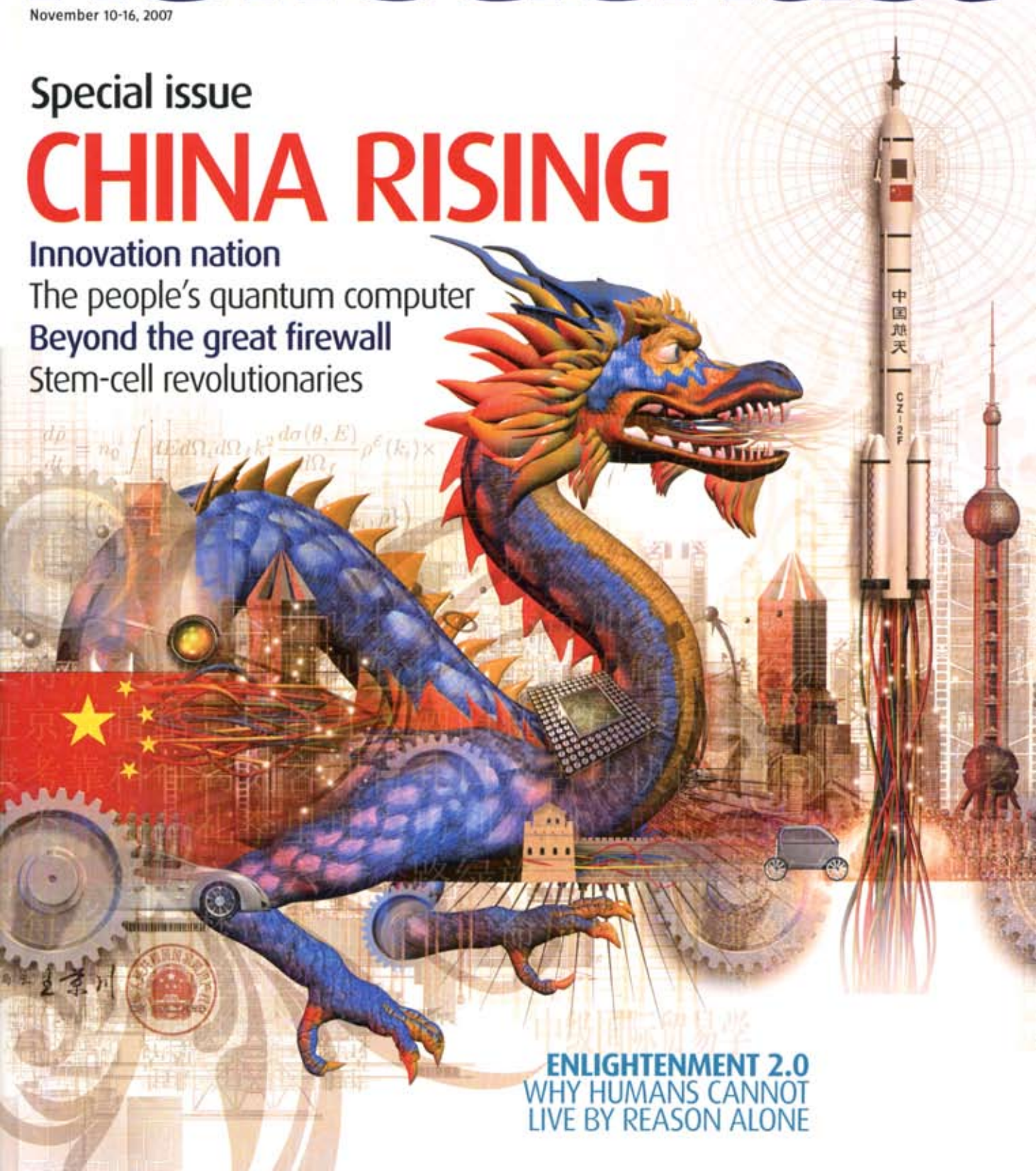
CHINA RISING

Innovation nation

The people's quantum computer

Beyond the great firewall

Stem-cell revolutionaries



ENLIGHTENMENT 2.0
WHY HUMANS CANNOT
LIVE BY REASON ALONE

The trouble with reason

Religion may be irrational, but simply attacking it flies in the face of science

SCIENCE and religion: just seeing the two words in the same sentence is enough to make some people apoplectic. The commingling of the two has been one of the most contentious educational and intellectual issues of the decade. Can they live together? Can a rational person be religious? Or should scientists be campaigning to rid society of what Richard Dawkins calls these “juvenile superstitions”?

To address such questions, some of the world's leading scientists met in La Jolla, California, last week for the second Beyond Belief symposium. The idea was to see how rational thinking fits with the distinctly non-rational religious beliefs that billions of people hold. Last year's meeting resounded with rallying calls from atheists determined to replace faith wherever they found it with a scientific world view. This year things were more conciliatory, with speakers recognising that we need many tools to make sense of the world besides the strictly rational (see page 6).

The change of tone is welcome. While the overbearing influence of religious groups in politics, especially in the US, is worrying and needs tackling, the idea that science can simply replace religion in the public consciousness is not only fanciful, it's also bad for science. Trying to tell people how they should think is likely to alienate them.

There is still a tendency among some scientists, however, to view religion as an irrational distraction and to presume that eradicating it would end a host of abuses.

Witness the claim, repeated by one participant in La Jolla, that religious schools are more likely to produce extremists, and the refrain repeated ad infinitum since 9/11 that religion is a sufficient incentive for suicide bombing. Such talk should be discouraged. It is based on no evidence whatsoever. True, terrorists tend to be more educated in religion than most in their community, but they are more educated in everything. Religious education is rarely a key radicalising factor. Likewise, it has been shown over and over that the political aspirations of terrorist groups play a far more critical role in suicide bombing than religion.

Moreover, religious belief is just one of many irrational human tendencies. Our sense of fairness and morality is hardly based on rational thinking. There is a growing conviction that such behaviours are largely innate, and that they evolved because they have survival value in an unpredictable world. Likewise religion. To borrow from a popular biblical saying, humankind cannot live by rational thought alone. To want to cleanse society of religion before understanding its evolutionary roots and purpose seems strangely unscientific.

The problem is not with religion per se – it's with the prejudice, discrimination and backward thinking that can derive from it. The subjugation of women and opposition to condom use are good examples. Far better to tackle these issues as they arise than try to eliminate a belief system in its entirety. ●

This week

THE ART ARCHIVE



A force to be reckoned with

- Anti-smoking activists accused of distortion, page 8
- Stem cell injections improve memory, page 10
- Prawns can feel pain, page 14

God's place in a rational world

If humanity has evolved to embrace faith and religion, then even atheists cannot ignore them

MICHAEL REILLY, LA JOLLA, CALIFORNIA

WE'RE on the Pacific coast, miles from southern California's still-raging wildfires, but talk of conflagration fills the air. Some of the best minds in science are gathered here at the seaside resort of La Jolla, together with some of the world's most insistent non-believers, to take a fresh look at the existence or otherwise of God. And one thing is clear: the edifice of "new atheism" is burning.

The first firebrand is lobbed into the audience by Edward Slingerland, an expert on ancient Chinese thought and human cognition at the University of British Columbia in Vancouver, Canada. "Religion is not going away," he announced. Even those of us who fancy ourselves rationalists and scientists, he said, rely on moral values – a set of distinctly unscientific beliefs.

Where, for instance, does our conviction that human rights are universal come from? "Humans' rights to me are as mysterious as the holy trinity," he told the audience at the Salk Institute for Biological Studies. "You can't do a CT scan to show where humans' rights are, you can't cut someone open and show us their human rights," he pointed out. "It's not an empirical thing, it's just something we strongly believe. It's a purely metaphysical entity."

This is a far cry from the first "Beyond Belief" symposium a year ago, at which many militant non-believers, including evolutionary biologist Richard Dawkins and author Sam Harris, came together to hammer home the virtues of atheism (*New Scientist*, 18 November 2006, p 8).

That gathering made much of the idea that humans can be moral without believing in God, and that science should do away with religion altogether.

The mood at this follow-up conference was different. Last year's event was something of an "atheist love fest" said some, who urged a more wide-ranging discourse this time round. While all present agreed that rational, evidence-based thinking should always be the basis of how we live our lives, it was also conceded that people are irrational by nature, and that faith, religion, culture and emotion must also be recognised as part of the human condition. Even the title of this year's meeting, "Beyond Belief II: Enlightenment 2.0", suggested the need for revision, reform and a little more tolerance.

Such was the message from evolutionary biologist David

Sloan Wilson of Binghamton University, New York. He suggested that humans' religious beliefs may have evolved over time, thanks to the advantages they conferred as a sort of social glue holding together groups that developed them.

Wilson was not saying religion is good or bad, simply that it has evolved to be hard-wired into our brains, and therefore cannot be ignored. "Adaptation is the gold standard against which reality must be judged," he said. "The unpredictability and unknown nature of our environment may mean that factual knowledge isn't as useful as the behaviours we have evolved to deal with this world."

Stuart Kauffman of the University of Calgary in Canada, an expert in complex systems and the origin of life, took that argument and ran with it. No matter how far science advances, there will be aspects of nature that remain unknowable, he said. As an example, he cited Darwinian pre-adaptations – in which organisms evolve traits that end up having beneficial side effects – which are so random as to be completely unforeseeable.

Fact-based knowledge can never provide all the answers, he concluded. "If we don't know what's going happen, we have to

live our lives anyway... We live our lives largely not knowing. That means reason is an insufficient guide."

Though Kauffman declared himself an atheist, he argued from this that it may be apt to invoke the concept of God as a proxy for such gaps in our knowledge. "I'd say that it's wise to use the word 'God'", he continued. "I know it's very freighted, but it also carries with it awe and reverence. I want to use the God word on purpose, to reinvent creativity in the natural universe. The natural universe, nothing supernatural."

Chemist Peter Atkins of the University of Oxford, one of the more hard-line atheists in

"I want to use the God word on purpose, to reinvent creativity in the natural universe – nothing supernatural"

the room, did not let this go unchallenged. He chided fellow participants for not being sufficiently proud about what science can accomplish. Given time and persistence, science will conquer all of nature's mysteries, he said. He even proposed that atheist scientists signal their intent to do just that by adopting a flag with a Mandelbrot set as its emblem.

So can scientific and religious world views ever be reconciled? Harris, author of *The End of Faith*, declared that they could not, and provided an uncompromising exposition on the evils of religion.

Away from the meeting, philosopher Daniel Dennett of Tufts University in Medford, Massachusetts, told *New Scientist* that as irrational as human minds may be, calm, firm introduction of reason into the world's classrooms could over time purge them of religion.

For all its fiery rhetoric, this year's Beyond Belief conference razed neither the new atheist movement nor, of course, religion itself. But it certainly lit the touch paper. ●

AN ALTERNATIVE READING OF LITERATURE

Religion is not the only aspect of the human condition that could do with a little more rationality, said some delegates at Beyond Belief II. Jonathan Gottschall, who teaches English literature at Washington & Jefferson College in Pennsylvania, proposed marrying literary studies with a scientific style of inquiry.

Gottschall has already made waves among his colleagues by conducting an experiment on how people respond to literature. From interviews with readers about their responses to books, he has shown that in general people have similar reactions to a given text. This runs counter to the conventional idea that the meaning readers take from literature is dependent more on

their cultural background than what the author intended. It also appears not to make sense, as literature is grounded in subjective rather than objective experience.

Gottschall, however, argues that the same can be said for literary criticism: the field is awash with irrational thought, he says, largely because most literature scholars believe that the humanities and science are distinct. As a result, literary theorists rely on opinion and conjecture, rather than trying to find solid, empirical evidence for their claims, he says. By adding an element of scientific thought to literary criticism, Gottschall says, we could unearth hidden truths about human nature and behaviour.