

BOOKS & ARTS

God is bred

Religious belief can be viewed as an adaptation that was favoured as the human brain evolved.

Six Impossible Things Before Breakfast: The Evolutionary Origins of Belief

by Lewis Wolpert

Faber and Faber: 2006. 243 pp. £14.99

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There are, of course, many more than six impossible things to believe in before breakfast (as Alice said in *Through The Looking Glass*). The range of human beliefs — past, present and probably future — is almost infinite. This book goes back beyond beliefs to trace the origin of belief as such, and its role in the evolution of human brains and behaviour.

Lewis Wolpert's central thesis is simple. At the beginning are the brain and sense organs, which together help organisms decide how to move. The next step, a long way along the track, is the use of tools, an ability humans share with other species, such as some birds and other primates. In the human case this leads gradually to understanding cause and effect. By then the human brain has become much larger. There may have been what Wolpert calls a "magic moment" when a proto-language acquired syntax and became the kind of language we know. From that comes the evolution of "a belief-generating machine, an engine that can produce beliefs with little relation to what is actually true". Whether its products are true or not, the machine serves a variety of useful purposes, and has a strong genetic element deriving from natural selection: the 'God gene'. It is now an essential part of the human condition.

How this all happened is a fascinating story, well told here. Not everyone will agree with each stage. Wolpert proceeds through observations on animal behaviour, child psychology, and the archaeological evidence for increasing tool complexity, with language to match. The transition from understanding cause and effect to systems of belief is difficult to explain but obviously crucial. If we look at our own mental processes, we can see the way in which we begin by accepting authority as part of growing up, and even if we subsequently change our minds, we try to maintain a consistent view, either with or without contradictions. All too easily we misinterpret coincidences, accept anecdotal evidence and indulge in circular reasoning. New ideas are often painful, and are strenuously resisted.



T. VAN HOUTRYVE/PANOS

Prayer matter: religion and paranormal beliefs provide comfort, explanation and meaning.

Rarely do we embark on a comprehensive view of the assumptions that govern our daily lives.

Once a belief is established, it tends to perpetuate itself. Wolpert discusses in somewhat hostile fashion the role of what Richard Dawkins has called memes, or units of information that, unlike genes, can pass laterally across cultures rather than vertically by inheritance. But he rightly brings out our ability to deceive ourselves, and this brings him to a tactful analysis of religion in its many forms, and a less tactful analysis of paranormal beliefs. Both can serve useful social purposes: they can supply explanations where none is otherwise forthcoming, provide consolation to the unhappy or bereaved, promote group solidarity and cohesion, and give overall purpose to life. They can also do a lot of harm: the history of religious intolerance and fanaticism is an alarming reminder of what people can do to each other, from warfare to the burning of witches, and some of this is still with us today.

Why we believe as we do also raises questions of health. Poor understanding of cause and effect has bedevilled medical treatment down the ages. Only recently have we introduced a more scientific approach, and this is far from universally accepted. Modern humans seem particularly vulnerable to schizophrenia, depression and other ailments in which delusions play a major part. The will of God is still seen as critical in many societies. Indeed, in our own society many reject reduc-

tionist interpretations of disease, and rightly or wrongly go for alternative treatments based more on faith than on anything else.

What is the answer? Is there one? Wolpert firmly goes for science. Although science can be counterintuitive (he refers to "the unnatural nature of science"), it provides the only fundamental explanation of how the world works. It is in constant evolution as knowledge accumulates, it is self-correcting, and it is universally valid without cultural bias. It is much more than the kind of relative social construct suggested by some sociologists, and if we need a basis for belief, it is the best available. As Wolpert concludes, we have to respect the beliefs of others, but it is their — and our — actions that ultimately matter.

This is an admirable short guide to an immensely complex subject. I could have wished for a little less technical jargon — "confabulation" and "heuristics" — and sometimes the text gets lost in quotations from others. It is unfortunate that this book should have come out at the same time as Daniel Dennett's *Breaking The Spell* (Viking/Allen Lane, 2006) on broadly the same subject (see *Nature* **439**, 535; 2006 for a review). But Wolpert's book is more succinct, and much better argued, and I would go for it every time. ■

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