Why Gods Persist

A Scientific Approach to Religion

Second Edition

Robert A. Hinde

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The views of the world provided by the Bible and other holy texts contrast with what we know the world to be like. So what is it about religion that appeals to people? Why do religions and religious beliefs persist in the face of increasing secularisation, harsh criticism and even political persecution? Robert A. Hinde argues that it is not enough simply to criticise religion, we must understand it – not only how it does so much harm and causes so much conflict, but also how it seems to bring comfort to many. Every aspect of religion is a product of the nature of humankind and of the cultural circumstances we have constructed. To build a better world we must extract from religion what is useful and marry it to our ever-growing knowledge of the world.

Why Gods Persist is designed for everyone interested in the subject, either as a student of psychology and anthropology of religion or as a follower of the current controversies over the value of religious belief. It tackles a complex problem without using jargon, draws examples from a wide range of religions including Christianity, Judaism, Islam, Buddhism and Hinduism, and provides helpful chapter summaries and references.

Robert A. Hinde is Professor Emeritus at the University of Cambridge and author of *Why Good Is Good* (2002) and, with J. Rotblat, *War No More: Eliminating Conflict in the Nuclear Age* (2003).

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Preface

The debate between science and religion has become a matter of urgent public concern. Heads of state claim to feel themselves guided by God, and launch bloody wars. Differences in religiously purveyed morality, in the use of alcohol, in attitudes to women, fuel antipathy between religious groups. Differences in doctrine, seemingly of little consequence to an outsider, have been seized on by leaders to foster recurring conflict in Belfast and Baghdad. Even in the USA, home to so many great scientists, large numbers of citizens believe in the literal truth of the Bible, claiming that God created the world in six days and inventing new myths to explain away the scientific world-view.

To counter these alarming trends some scientists, most notably Richard Dawkins, and some philosophers, such as Daniel Dennett, have launched devastating critiques, exposing the inadequacies of world-views that depend on omnipotent, omniscient beings. But is that enough? Over the centuries religion has withstood many such attacks, though perhaps none so well informed or clearly presented. History shows that religion can withstand doctrinal criticism and political oppression and emerge as strong as ever. I suggest that something more than a sledgehammer, however skilfully it is wielded, is needed. We need to move on. We need to seek a scientific understanding of religion's extraordinary resilience. We need to understand the impact of religion on the human psyche. Mounting evidence shows that religion depends on psychological mechanisms evolved in non-religious contexts: we must seek understanding of how those mechanisms contribute to religion's ubiquity and persistence. Why is it that every society has its own god or gods? What does religion do for people? Deities are doubly represented in people's minds, intuitively and theologically: is it that critics are attacking only the latter?

We must also recognise that religions, as well as causing immense suffering and purveying a view of the world that is in many respects plain wrong, have given comfort to many and a world-view that brought satisfaction and at least a degree of peace of mind to some. We need to understand religious commitment and the bases of morality better, so that we can use our understanding to move towards a way of life that does not support false

beliefs and does not leave everywhere a trail of suffering. Perhaps, with a critical understanding of religion, we can build a better world than we have had so far. That is my justification for a second edition of this book, though I recognise that it represents only tentative steps towards that goal.

I see myself as an atheistically inclined agnostic, but it was not always so. I was brought up low-church Church of England, but in my teens I lost both faith and interest – culminating in conversations on a troopship with an avowed atheist as we watched for hostile submarines, conversations which led to reciprocal conversion, his to Christianity and mine to atheistic agnosticism. He sent me his agnostic books and disappeared into Bomber Command. I put the whole issue on the back-burner during an academic career as a biologist/psychologist. But over the years I came to feel that I could use my academic experience to understand why religion had so strong an appeal to so many. It was at once apparent that the existence of religion poses many exciting scientific problems, including one of the most interesting challenges to the theory of evolution by selection. Although many say that science and religion belong to different spheres, I became convinced that science, and especially the various behavioural sciences, has a great deal to say about religion and morality. That view is confirmed by the striking advances that have been made in the last two decades. This work, published in academic journals as well as books, has received too little notice by the authors of attacks aimed solely at deriding religion and exposing its evil consequences, though it would provide them not only with grist for their mill but a much greater understanding. For that reason, though this book is certainly not intended for academics, I have included references to the work I cite, to be used or disregarded as the reader wishes. In the space allowed, this book can give only a selective survey of what has become one of the most exciting fields of research in the humanities and biological sciences, but I hope it points the way to better understanding and a happier world.

Acknowledgements

It will be apparent from the bibliography that this attempt to draw together insights from different approaches to human nature is heavily dependent on the work of others. In addition, I would like to express my debt to many who have helped me with advice and criticism, though none of them bears any responsibility for the end result. Since some of them hold views different from my own, I am grateful to them for their willingness to enter into free discussion.

Chapter 1

Religion and science

The questions

Throughout human history, religions have played a major role in the lives of individuals and in the integration of societies. This is still true even in post-Darwinian Western Europe, where religious truth and scientific truth are often seen as opposed. Many of our institutions have religious roots and, in spite of the obvious contradictions between modern science and literal interpretations of religious texts, many people still attend places of worship or claim religious faith. Why should this be so? One possible answer lies in the fact that religious observance results from pan-cultural human psychological characteristics which, in the context of human societies, have shaped religious systems in all their diversity. This is certainly not a new idea, but recent advances in psychology, biology and the social sciences permit it to be evaluated more precisely.

This chapter considers first the prevalence of religious involvement, with special reference to the western world. Then, accepting that many religious beliefs are absolutely incompatible with both an everyday and a scientific view of the world, I suggest that that is an inadequate reason for simply writing off religion at this time: we first need more understanding of what religion is. The widespread influence of religious systems provides what are perhaps the most exciting problems in the behavioural sciences.

Incidence of religion in the West

Stability and change

Religious teaching has purveyed a view of the world that, if taken literally, is clearly false. Yet religious beliefs have helped individuals to face injustice, suffering, pain and death. They have supported values of love and respect for others that have been fundamental to the smooth running of societies. But religions have also been used to perpetuate inequities, and religious differences have been used to justify torture and horrific religious wars. Religions have provided people with a sense of purpose – though sometimes that sense of purpose has led believers to destroy the ways of life of those who thought

differently from themselves. Religions have provided a medium for many, perhaps most, of the great artistic, musical and literary creations of human history. They have provided answers, emotionally satisfying to some, to the fundamental questions of 'Where did we come from?' and 'Where are we going?' – yet those answers have stemmed from systems of beliefs that have always been unverifiable and which, at least if taken literally, can now be seen as wrong in many respects (Dawkins, 2006; Dennett, 2006).

The truth-value of religious beliefs must have been a matter of debate throughout the history of each one of the current world religious systems. In the modern world many, perhaps most, people prefer scientific explanations for natural events to theistic ones. Furthermore, adherence to a religious system has always brought costs. Whether it is tithes, donations to the priests, burnt offerings, pilgrimages, the building of shrines, erecting monuments to the dead or even just giving up time, religion can be a costly business. In our own society, religion no longer performs many of its former services for society: religious institutions are no longer the main controllers of education, charity or healthcare; and Friendly Societies, earlier responsible for much social support and organised locally by individuals who knew each other, have been superseded. Rationality and bureaucracy have led both to a search for more efficient ways of managing our affairs and to scepticism about the possibility of supernatural intervention in human lives (Davies, 1994).

Yet religions have persisted in almost every society in the world. Why?

The present state

In Europe, the scope of religious beliefs was diminished by the Enlightenment, itself made possible only because some independence of the religious from the everyday world was already accepted (Tambiah, 1990). The debate came to a head in the nineteenth century with the publication of *The Origin of Species*. Subsequently the Rationalist Press, the Thinker's Library and other publication ventures recruited some of the best minds of the time to criticise religious doctrine, and religions continued to lose some of their influence up to at least the middle of the twentieth century.

How far this decline in religious observance has continued in recent decades is less clear (Presser and Chaves, 2007). This is in large part because diverse measures of religious involvement have been used. For instance, to many 'being a Christian' means, not church membership or holding Christian beliefs, but attempting to live up to a certain moral code. However, church membership is a convenient measure, and its use shows that religion has declined in the United Kingdom. For instance, the data indicate that between 1900 and 1990 the membership of Episcopalian churches declined from 2.09 million to 1.71 million, Presbyterian from 1.25 to 1.01 million, Methodist from 0.77 to 0.43 million, while Catholics increased from 1.22 to

1.67 million. Allowing for an increase in the population of individuals over 15 years of age from 24.68 to 45.11 million, the data suggest a decline in church membership from 25.6 per cent to 13.99 per cent (Bruce, 1995; see also Crockett and Voas, 2006). However, such conclusions have been criticised because they neglect the increase in non-Christian religious groups; because of the extent to which children were included; and because so much depends on the precise measure used. A Gallup poll in 1981 indicated that 73 per cent said that they believed in God, and 36 per cent in a personal god (Webb and Wybrow, 1982), though of course a much smaller percentage attended places of worship. In addition, not all Christian denominations have shown a decrease: some, like the Pentecostalists, have shown an increase (Hood *et al.*, 1996). In the 1991 British Social Attitudes Survey only about 10 per cent said they had no religion (Bruce, 1996). In the Netherlands the decline in church attendance has been ascribed to the growth of moral individualisation (Houtman and Mascini, 2002).

Societal differences are often profound: the high percentage of atheists in East Germany (25.4 per cent, compared with USA 1.1 per cent) has been ascribed to socialist intervention. In Soviet Russia atheism fell from *c.*25 per cent to 5 per cent with the fall of Communism (Froese and Pfaff, 2005). With the collapse of Communism the Church has again become a potent force in Poland and elsewhere in Eastern Europe.

The proportion of people with a religious inclination in the USA has been consistently higher than in the UK: an analysis of the 'General Social Surveys' from 1973 to 1991 indicated that 84 per cent of Protestants, 76 per cent of Catholics, 30 per cent of Jews and 48 per cent of those who claimed no religion said that they believed in life after death. These levels remained virtually constant over the two decades, though that for Jews showed a slight upward trend (Harley and Firebaugh, 1993). Even among scientists, surveys in 1916 and 1996 showed that the proportion who believed in a personal god who heard prayers and could grant immortality remained steady at about 40 per cent (Larson and Witham, 1997). In recent years fundamentalism, involving acceptance of the literal truth of the Bible, has become the dominant approach in parts of the USA.

Just what such figures mean is another matter: a 1954 Gallup poll showed that over three-quarters of United States Protestants and Catholics could not name a single Old Testament prophet, and more than two-thirds did not know who preached the Sermon on the Mount (Stark and Glock, 1968). It has also been argued that, although Americans seem to be more attached to their churches than Europeans, the churches have changed: 'Radical sects have become denominations. The mainstream denominations have become tolerant and ecumenical. The gospel itself has been rewritten to remove much of the specifically supernatural' (Bruce, 1996: 164). At least in some areas of the USA, Christian fundamentalism is widespread. As just one example, the 'Brownsville Assembly of God' drew over 3,000 people most

nights of the week, members of almost every conceivable religious denomination, to hear that Christ is 'coming back with a sword in his hand and vengeance on his mind'.

The conflict between science and religion

Any number of critics have pointed out that the basic beliefs of Christian doctrine, taken literally, are simply unacceptable to most twentieth-century minds (e.g. Dawkins, 1993, 2006; Dennett, 2006). But churchgoers are still told about the Virgin Birth, the Resurrection and Ascension, miracles, even Heaven and Hell. In Britain, schoolteachers may still be required to lecture on specific gravity in one lesson and discuss the Gospel story of Jesus walking on water in the next. That it is impossible to accept such stories in their literal form has been demonstrated many times, and I have no intention of going over that ground again. In any case, many, perhaps most, Christians do not take them literally. But their counterintuitive nature does raise an important problem: if the basic beliefs and narratives of the Christian or any other religion are not to be taken literally, why are religions so persistent? To point out inconsistencies with everyday common sense or to demonstrate that much religious dogma is incompatible with modern scientific knowledge is, I suggest, not enough.

Christianity has been under attack since its earliest days. There have even been times when it was outlawed by national governments. And yet it has survived. Why? What makes it important to so many? Some people claim that they gain a great deal of comfort from their religious beliefs. Concentration camp inmates, prisoners and citizens under stress who have religious or political views providing a meaning that points towards a future seem to do better than those without them (e.g. Frankl, 1975; Levi, 1989). A religious approach is claimed sometimes to be valuable in psychotherapy. Those who adhere to one faith or another would surely not do so if it did not sustain them or satisfy some need, and there must be some reason for religious revivals. Reviewing the more recent literature, Hood *et al.* (1996: 436–37) conclude that '[i]n most instances … faith buttresses people's sense of control and self-esteem, offers meanings that oppose anxiety, provides hope, sanctions socially facilitating behavior, enhances personal well-being, and promotes social integration'.

Furthermore, in many societies the religious system is intimately intertwined with aspects of the social and group ideology and with the social structure: while crime and lawlessness have many causes, the Christian churches used to be the principal purveyors of values in the western world, so some have argued that the decrease in communal responsibility which seems to have occurred in the second half of the twentieth century may be related to a decline in the churches' influence. In the nineteenth century church adherence and attendance served to express and affirm respectability.

Even those who did not attend churches were receptive to religion-purveyed social morality (Davies, 1994).

Thus the very ubiquity of religious systems suggests that they are, or have been, seen as valuable by many people (Campbell, 1991). But how can this be with a religious system that depends on beliefs that are incompatible with a commonsense view of the world; when religious observance is so costly to individual believers; and when beliefs have been responsible for much suffering and have so often been divisive?

Is belief in the dogma only part of the issue? Although Christians give it primacy, belief is by no means all there is to religion. In Judaism, structural beliefs (see p. 10) are less important than the historical narrative. Hinduism does not *necessarily* imply any doctrinal agreement except in so far as it influences conduct: the Hindu may pursue work, or meditation and knowledge, or devotion. For Buddhist teachers, values and experience come first, and there is much less emphasis on belief. Many, though not all, Buddhist sects do not rely on reverence for superhuman beings. The early Buddhist teaching emphasised salvation by self-discipline and good works: faith became an issue only in the Lotus Sutra, written centuries after Buddha's death, though purporting to be his last testament (Firth, 1996). Confucius was primarily concerned with how humans could create and maintain an ordered world. In many small-scale religions in pre-literate societies, belief in deities was unimportant.

Clearly there are problems here: it is not enough to say that most religious beliefs are incompatible with what we know about the world. *Of course* science can do a better job in helping us to understand our origins than can Genesis or any comparable myth. And *of course* science is more help than religion in understanding the relation between cause and consequence in everyday life. Although we must never lose sight of the fact that nearly all knowledge, including scientific knowledge, involves belief and that even scientists use metaphor, scientific belief is very different from religious belief, for when they use metaphors scientists seek to cash them out in non-metaphorical terms. We need to know much more about how religions relate to life as it is lived, and much more about why it is that human nature seems so often to have been satisfied by religious systems over the millennia. We need to recognise that most religious systems involve several interrelated components, of which belief in dogma is only one: the beliefs are closely associated with codes of proper behaviour, with ritual and with the social system, and therefore require a more subtle and analytical approach. We need to know how individuals become religious, how religions relate to social systems, how they change with time, how they come to affect attitudes and behaviour. These are exciting problems and require input not only from psychology but also from other natural and social sciences, from history and from other humanities. Simply to point out inconsistencies between religion and what we know about the world sidesteps what could be seen as the ultimate

challenge to Darwinism. Of course I am not able to offer final solutions to all these problems: my aim is to survey present knowledge (but not to review comprehensively the vast literature on the nature of religion) and indicate a direction we could take. Perhaps, just perhaps, we could learn some lessons from the ubiquity of religions that would help us to move towards a better world.

Finally, I should say that I believe that what follows is representative of where we are, but this overview does not follow through on all the controversies that concern students of religion. And while I claim that this is a scientific approach, I cannot claim that the state of our understanding permits the strict adherence to scientific procedures that would be expected in a refereed scientific journal.

The questions

My concerns involve three interrelated questions. First, how far can the widespread adherence to religious systems be explained by the extent to which they fit certain aspects of human psychology? As we shall see in Chapter 2, religions involve a number of interrelated components, so we must ask how far each can be accounted for in terms of basic human behavioural and psychological propensities that are more or less pan-cultural (Barrett, 1999; Boyer, 1994, 2002; Hinde, 1999). In tackling that issue, it is necessary to refer to aspects of human behaviour and psychology outside religious contexts, and to assess how far the principles found there can account for religious behaviour.

But the view that religious observance depends on basic psychological mechanisms does not adequately account for how those mechanisms are called into play even though they incur costs to the individuals concerned. What motivates individuals to suffer the costs that religious observance entails? Related to that, the second question is what aspects of religions could explain their widespread distribution across societies and their extraordinary persistence? How far are these due to the nature of religions themselves, to the answers to existential questions that they claim to provide, to their consequences for the believer, to properties of human minds/brains or to interactions within societies, or to all of these?

The third question, for which this book provides a background but which it does not answer, concerns the value of religious systems. If religious beliefs taken literally cannot be sustained, would we do better to dispense with religious systems altogether, or do they still have a constructive influence on people's lives? If they do, will it be possible to retain the beneficial aspects without the discord that religions so often bring?

It will already be apparent that I am not here repeating the old discussions as to whether God or gods exist. Nor am I concerned with reconciling the presumption of a transcendental reality with scientific habits of thought (e.g.

Polkinghorne, 1994). I am aware that many modern theologians equate God with supreme goodness and hold that most of what the Bible teaches is to be taken as metaphorical. I will ask here not 'Metaphorical for what?' but instead how far the causes and consequences of religious systems can be found in principles of human functioning that operate also in non-religious contexts. And, most importantly, can recognising the bases of religious systems help us to build a better world?

Orientation

It is almost universally accepted that science can say nothing about religion or about the nature of good and evil. I challenge that view. In the case of morality, for instance, I shall argue that science can tell us why we see some things as good and some as evil; science can tell us how we came to use the particular criteria that we do use; and science can point the way towards changing those criteria. By science, I refer especially to biology, psychology and the social sciences and humanities, together with some clear thinking about the phenomena. Similarly, although science cannot disprove the existence of God, it can help us to understand why believers believe, and point the way towards understanding religious experience.

Basically, there are two possible routes to follow. Either religious beliefs, worship, morality and experiences refer to some transcendental reality beyond the material world, or they can be understood as products of human nature in interaction with society and with the world. The scientific approach which I shall adopt cannot disprove the former: just as the nature of a bat's auditory system enables it to live in an ultrasonic world that simply does not exist for me except in so far as scientific research has conveyed it to me second hand, so no scientist can deny the reality of religious experiences to the believer. It is, however, legitimate and indeed obligatory for the scientist to seek understanding of the nature of those experiences, and of the interpretations put upon them. So nothing in this book must be taken to imply that what believers believe is not 'real' for them: the concern is with how they come to believe it.

To the believer this may seem an impossible, or else a useless, task. To some who do not have religious faith it may seem an unnecessary and perhaps misleading undertaking. But simply to dismiss the problem would involve neglecting an important part of the lives of many people. My aim, therefore, is to see how far a scientific and rational approach can take us. In doing so, I am following a course that has been sketched out many times already, but I hope that new developments in the human sciences, together with my attempt to survey both the several facets of religious systems and the interrelations between them, will prove it worthwhile.

Since I have had a personal acquaintance with it, I focus primarily on Christianity, though using references to other religious systems to expand or

validate points that I hope are more generally applicable, or to illustrate the limitations of generalisations. Focusing on Christianity is, of course, a severe restriction: religion in a post-Enlightenment, mainly Christian, society that embraces the whole spectrum from fundamentalist believers to equally convinced atheists as well as members of other religions has a flavour very different from that in societies where religion pervades the social system, as in many of those studied by anthropologists. Other world religions are, of course, equally diverse: Islam, Buddhism, Hinduism, Confucianism and others all have their divisions, so that generalisations about them are also likely to be misleading. Yet, even if I had the competence, which I have not, an attempt to make detailed distinctions within each of the major world religions would have been irrelevant to an attempt to pinpoint the bases of religions in general. I shall argue that the so-called world religions rest on basic human propensities seen also in the religions of much of the pre-literate world and in non-religious contexts. But while I sometimes refer to the religions of pre-literate societies, it is important to bear in mind their many differences from the main world religions. Many of the religions studied by anthropologists have little explicit theology and often little interest in the problem of creation or in doctrine (Boyer, 2004).

In trying to draw together material from different disciplines, I have inevitably touched on issues controversial within those disciplines. While I have tried to avoid such matters as far as possible, and to take an overview, there will be specialists who disagree with the line I have taken. I can only ask them to consider how far any disagreement would affect the main points I am making.

Focusing primarily on Christianity but including references to other religions has also posed some curious stylistic problems, such as the necessity for the umbrella term 'religious specialists' to cover priests, diviners, shamans and so on. Perhaps because of my upbringing or respect for some of my friends, I find it awkward not to capitalise the deities of Christianity and other world religions, which may leave the false impression that other gods are regarded as inferior or that I retain a reverence for the Christian one. And, on a different issue, I hope that it will be understood that where I have used masculine or feminine pronouns they are usually intended to refer to either sex, except where the context specifically indicates otherwise.

Plan of the book

Chapter 2 is concerned with some basic issues from various other disciplines which pertain to virtually all subsequent chapters. In it the several interacting and mutually supportive aspects that together constitute religion are listed. I also illustrate the diversity of religious systems by comparing two extreme examples. Consideration is given next to the way in which human behaviour in all its diversity depends on progressive interactions between

pan-cultural human psychological characteristics and the social and physical environment, with cumulative consequences. Of special importance for the understanding of religious systems is the nature of the self-system, and how that interacts with human relationships and with the socio-cultural structure of beliefs, values, myths and so on.

Chapters 3–16 take each aspect of religious systems in turn, exploring the extent to which they depend on basic human propensities. Special attention is paid to beliefs in Chapters 3–7, to narratives and ritual in Chapters 8–11, and to moral codes in Chapters 12–14. Chapters 15 and 16 concern religious experience and the social aspects of religion. Chapter 17 asks what enables religious systems to be so persistent, bringing together material from earlier discussions. The final chapter (Chapter 18) considers the benefits and costs of religious systems at this time, and what society could be like without them.

Summary

Although the influence of religions might seem to be declining in parts of the West, the data are difficult to interpret. Certainly it is still strong in many areas, and even stronger in many other parts of the world. Contradictions between scientific findings about the origin of the earth and the nature of humankind, on the one hand, and literal interpretations of religious texts, on the other, have led to a purely destructive approach to religion by some. While agreeing with their main conclusions, I suggest that this approach is inadequate because it assumes that religions consist only of belief in dogma, it fails to explain and aims to remove something that appears to be of value to at least some people, and it neglects the challenging Darwinian problem posed by the persistence of religions.

This book is concerned with three questions: How far do the several aspects of religious systems depend on pan-cultural human psychological characteristics? How can we account for the persistence of religions? And if religious systems have some beneficial consequences, how can these be retained while literal interpretations of their basic beliefs are unacceptable?

Chapter 2

Some background issues

This chapter prepares the ground. The first section lists some aspects of religious systems that, for the sake of convenience, are discussed separately in later chapters: this in no way denies their interdependence, which will be apparent throughout and is emphasised later. The rest of this chapter emphasises the diversity of religions and considers issues that, though seeming remote from religion, are essential to later chapters – the existence of basic human characteristics and how they interact to produce complex behaviour; and the nature of the self-system. Discussions of some other theoretical issues are postponed until the point where they are most relevant.

The components of religious systems

As the term 'religion' is generally understood, it involves systems that include reference to non-human (though usually in some degree anthropomorphic) entities or essences that can have or have had some influence on the world in a manner that is contrary to normal expectations. It is possible to name religious systems that are exceptions even to this wide definition, but the lack of a more precise definition is partially ameliorated by the necessity to treat religion as involving a number of more or less distinct yet interrelated components, of which belief is but one, and which are differentially emphasised in different cases (cf. Malinowski, 1954). Thus most religions involve at least some of the following elements:

1 Structural beliefs. These usually involve an entity or entities that have at least some improbable and counterintuitive characteristics, and are usually independent of time. For Christians, they include beliefs associated with the doctrines of the Trinity and Incarnation. It is sometimes convenient to distinguish 'structural' beliefs, which concern the bases of the religious system and are concerned with states that are always true and are thus outside time, from belief in particular events which occurred at a moment in time, like the Resurrection, even though the latter convey truths supposedly valid in perpetuity.

2 Narratives, such as the story of Jesus's life set out in the Gospels. These also usually concern, directly or indirectly, entities with improbable characteristics. They may also include the teachings and experiences of lesser religious figures.
3 Rituals, prayer, sacrifice and other aspects of religious practice. These include ceremonies supporting the religious system and *rites de passage.* They may involve the recitation of texts or creeds or dramatic ceremonies stressful for some of the participants.
4 A code of personal and group conduct, associated with an implied or explicit system of values. To an extent which differs between societies, this may be related to the conventions, norms of behaviour and ideology of the society or of its components.
5 Religious experience. Subjective experiences which seem to the individual to be outside the normal and involve some impression of the supernatural.
6 Social aspects.

The extent to which these several aspects are emphasised varies between religions and between the adherents of any one religion. Some systems that we refer to as religious may lack or underplay some of the above components, but all are present to some degree in most systems. Any understanding of a religious system should therefore depend on an initial phase of description involving, so far as is possible, all its elements. Later I shall speculate on how they are interrelated and mutually supportive.

Some see ritual as the central issue, others belief, others morality, others religious experience. The issue here depends in part on the type of religion that is in focus: with imagistic religions (see pp. 15–16) ritual has seemed crucial; for doctrinal ones, belief. Religions in some pre-literate societies involve only general and loosely specified beliefs. Imagistic rituals may have no explicit meaning, or a meaning known only to a few elders or religious specialists; and in doctrinal religions, at least, rituals that had no reference to belief might seem hollow, even though the rituals are based on intuitive knowledge not readily available to consciousness. Again, many people abide by religiously purveyed moral principles but lack religious belief, and many do the reverse. Many who do not accept Christian doctrine try to live by what they call 'Christian morality', but Christian morality does not depend on Christian belief, though it has been purveyed by the Christian Church (Chapters 12–14). In some societies belief in the possibility of supernatural punishment for those who err or reward for those who don't is the most conspicuous aspect of the religious system. In later chapters these aspects of religious systems are discussed in turn, their interrelations being considered in Chapter 17.

In possessing these several aspects, religion resembles other aspects of the socio-cultural system. For example, in societies in which racism is institutionalised there are likely to be beliefs about the characteristics of the out-group and their inferiority as compared with the in-group; narratives about

relations with them; rituals, such as those of the Ku Klux Klan; a code of conduct governing encounters with the out-group; experiences associated with interactions with them; and, of course, a social aspect.

Many authors regard its beliefs as central to a religion, others lay emphasis on the moral code, yet others on the ritual. I shall treat all six categories as contributory elements: it could be dangerous to treat any one as central, for they are interrelated, and I shall refer to their interdependence as involving a 'religious system' which forms part of the culture of the society (Hinde, 1999). In Christianity the structural beliefs influence the form of the narratives and are explicated by them. The narratives not only supplement the structural beliefs but also convey values. The rituals are informed by and support the beliefs and values, and may involve religious experience. They are usually socially performed and are likely to influence social relationships. And religious experience is influenced by, and is seen to support, the beliefs, narratives, values and rituals of the religion in question. Some aspects of religion can be seen as combinations of two or more of the above categories – for instance, prayer may depend on the narratives and involve both ritual actions and religious experience. But that the components of a religious system affect each other does not mean that their relationships are without tension: moral precepts may not accord with the narratives, for instance.

This view of religion as a system of interacting components implies that attempts to understand one of its components must also take into account influences from the others. It also poses two problems. First, why do the several components persist over time? There are three possibilities: either each satisfies some need or needs in the participants, or they are imposed by authorities or other influences from outside the system, or they are maintained by their relations with other components of the system. And, second, just how do the several components influence each other? These issues are discussed in the following chapters, and their mutual influences are summarised in Figures 2.1a and 2.1b.

The diversity of religious systems

Although Christianity features most prominently in later chapters, it is essential to bear in mind that it is in many ways a special case. Religious systems display extraordinary diversity, though that diversity has limits: comparative studies reveal resemblances in beliefs or ritual between religions that cannot be accounted for by simple spread. These similarities must be presumed to be due to constancies in the relations between universal human psychological characteristics and the experiences of individuals. This, of course, is no new idea: Malinowski (1944) linked social institutions to human needs. But such a possibility has been anathema to many. Until recently, many of those concerned with the nature of religions have eschewed any contribution of human universals – theologians have tended to see

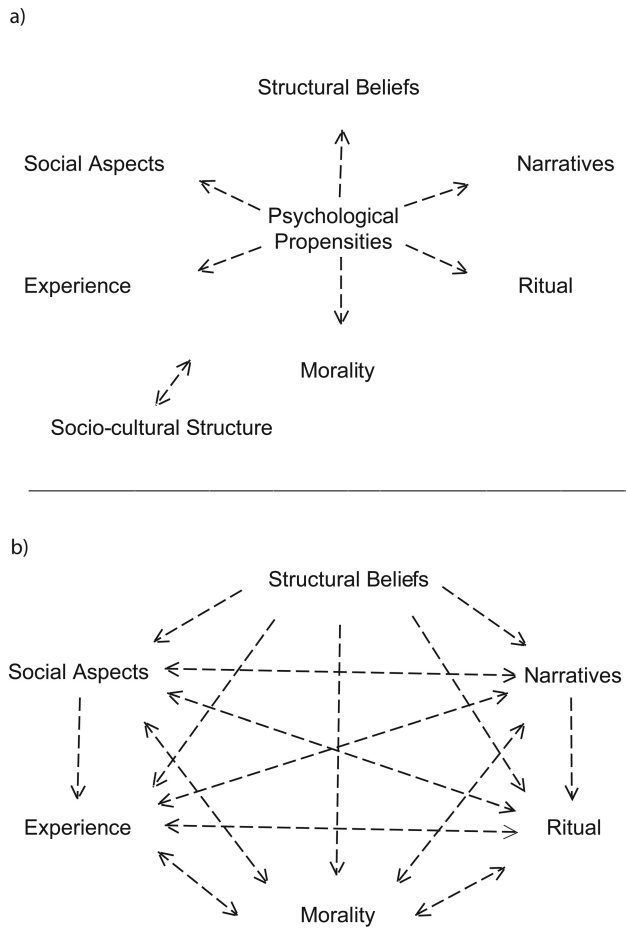

Figure 2.1 (a) Influences of psychological propensities in interaction with the socio-cultural structure on the components of religious systems. (b) Schematic representation of the probable mutual influences between the components of religious systems.

religious systems as externally inspired, and most anthropologists have sought for common features at a descriptive level. That the more important basic similarities between religions are to be sought at an intuitive level will, I hope, become apparent in due course.

Doctrinal and imagistic modes

The diversity of religious systems is well illustrated by Whitehouse's (2000, 2002) field studies of endemic religions and missionary Christianity in Melanesia. The context in which he worked brought to the fore a crucial issue

for any religious system: its ability to be transmitted between individuals and across generations. A system that is not transmitted does not survive. However, transmission involves different mechanisms in different cases. Whitehouse distinguished between two 'modes of religiosity'. In the *doctrinal* mode, continuity of the religious tradition requires 'intellectual training' in the course of frequent exposure to an explicitly interconnected web of propositions, as exemplified by missionary Christianity. Transmission also requires the socio-cultural and bureaucratic structures available in at least partially literate societies. By contrast, the *imagistic* mode seen in many endemic religions involves exposure to rare but highly salient experiences, so striking that their details remain in memory and promote a bond between those involved. Their meaning, if any, may be deliberately obscured by those in charge. Whitehouse suggests that both modes provide material and opportunity for subsequent reflection.

It is suggested that these two modes depend on different types of memory. Doctrinal religions involve semantic memory of a general propositional nature consequent upon frequent verbal repetition of the beliefs and of the accompanying low-intensity ritual. Most doctrinal religions are to be found in societies that are at least semi-literate. Doctrinal transmission includes frequent, mostly low-intensity, rituals which can be reproduced automatically, with little reflection. This permits the attribution of meanings from outside by religious specialists and thus the learning of complex belief systems and ritual procedures, leading in turn to uniformity in religious orientation. The beliefs are encoded in language and can therefore readily be spread through the agency of literacy or preachers. However, the repetitive nature of the ritual, epitomised by the reciting of familiar prayers and psalms in Christian services, can lead to boredom. By contrast, transmission in the imagistic mode depends on infrequent and usually traumatic personal experiences seen as unique and as salient episodes in one's life, such as initiation ceremonies. Imagistic transmission, utilising episodic memory of emotionally arousing events, leads to vivid memory of one or more particular episodes and to close bonds with others who shared the experience. But it lacks the ability to spread beyond the in-group.

In Whitehouse's view, both modes lead to 'revelation', though the means by which they do so is markedly different. The meaning of the highly arousing and often terrorising ceremonies on which the imagistic mode depends results from individual interpretive reflection: as a result there need be little uniformity in the meaning that individuals ascribe to their experiences, even though the intensity of those often traumatic experiences leads to strong social bonds between those who experience them. The meaning of the repeated rituals of the doctrinal mode is produced by long-term reflection as well as being conveyed by the religious specialists, the latter leading to uniformity.

Whitehouse stresses that this distinction between these two modes is intended to indicate *tendencies* towards particular patterns of 'codification,

transmission, cognitive processing and political association', and that both semantic and episodic memory may be involved in any one case. Both imagistic and doctrinal modes lead to prolonged reflection and interpretation, though this may be the result of private rumination in the imagistic mode but be codified in language in the doctrinal one. The fundamentally contrasting dynamics of the two modes may be found in the same religious tradition: for instance, in pre-Reformation England the doctrinal mode was to be found amongst the élite and in the abbeys, while imagistic-like practices were common in the countryside (Duffy, 1992). Whitehouse's work in Melanesia showed how the repetitive nature of the prayers and low-intensity rituals employed by the missionaries led to boredom and to new religious movements under indigenous leadership, often followed by splintering founded on imagistic practices and involving salient ritual experiences.

The modes differ in that the imagistic mode leads to more intense social cohesion, slow and more limited spread and much less uniformity than the doctrinal mode. It tends to be associated with small tightly knit communities. In some respects its importance may lie in the effect of the isolation and painful experiences on both involvement and innovation in the religious system. The doctrinal mode, by contrast, is suited to wide diffusion of a standardised view, especially in literate cultures, and can cope with extremely complex and counterintuitive concepts, like the Christian concept of the Trinity involving three Persons in One.

Whitehouse's 'Modes theory' has proved to be a catalyst to research on religion, and I shall refer to it frequently in what follows. It receives support from fields as diverse as ethnology and cognitive science. For instance, the distinction between semantic and episodic memory finds parallels in cognitive science, and evidence from a variety of sources is in harmony with the view that religious concepts are handled in two ways, one being explicit and abstract, the other implicit, intuitive and inferentially rich (see pp. 53–7; Barrett, 1999; Tremlin, 2005).

Of course, the modes theory is not without controversy. Most religions seem to contain a mixture of doctrinal and imagistic practices, so that the distinction seems to be one between extreme cases. But that does not make the distinction any less important. While accepting the utility of the modes distinction as a descriptive tool, Boyer (2005) points out that there is little evidence that the adoption of one characteristic of one mode makes the other characteristics more likely (but see pp. 10–13), in other words that they do not constitute 'systems'. While Boyer argues that the motivation behind religious behaviour arises from tacit, intuitive mechanisms and that what people think or say they believe has little importance, Whitehouse, by contrast, argues that the complex religious knowledge that results from religious practice has considerable motivating force. In Chapter 5 I argue that the motivation for religious activities is more probably to be understood at least in part as stemming from the needs they are perceived to satisfy or the

dangers they are assumed to avert, coupled with the desire of religious specialists to stabilise their positions. Again, Whitehouse accounts for variation in religious systems in terms of a mixture of behavioural programmes with differing degrees of environmental dependence, while Boyer bases explanation on interaction between fixed programmes and the historical and cultural environments (perhaps a distinction without a difference?). Whitehouse postulated that traumatic ritual led to the extraction of meaning by 'spontaneous exegetical reflection': both Boyer (2005) and Hinde (2005) have criticised this concept as ambiguous and without empirical underpinning, though Whitehouse cites experimental studies in which such rituals appear to lead to prolonged rumination (Whitehouse, 2005) and presents some empirical evidence that subjects who had been markedly aroused by a simulated ritual were more likely to engage in reflection on its meaning than those less aroused (Richert *et al.*, 2005). Boyer suggests that many features of religious practice are related to cognitive dispositions for contamination avoidance and group formation. Such controversies testify to the vigour and excitement of current studies of religion resulting largely from Whitehouse's work: for the most part they must await further studies for resolution (Barrett, 2005).

The bases of the current approach

The building blocks

This book is not an attempt to assess whether religious systems as wholes are or are not adaptive in a biological sense – that is, whether or not the practice of religion favours the reproductive success of individuals in the context of the society in question. Some have proposed that to be the case (e.g. Wilson, 1975), but there is little hard evidence. As one example, after surveying a broad sample of religions Reynolds and Tanner claimed that cultures in which the relevant codes of conduct favoured a high reproductive rate tend to be those in which the environment is unpredictable. They conclude that the '"instructions" religions give to individuals are "adaptive"' (Reynolds and Tanner, 1983: 293–94). The thinking behind this is roughly that in unpredictable environments it is better to reproduce as fast as you can when you can, so that at least some young will survive, whereas in predictable environments it is a better policy to produce a few high-quality young who will do well in intra-specific competition. Although these authors scan a great range of material, much of it is insufficiently analysed: the result is an interesting overview, backed up by a few measures of reproductive success, but scarcely meriting a hard conclusion. More recently, Wilson (2005) has tentatively argued, on the basis of a sample of religions, that religion has an adaptive value.

I am going to leave that question on one side, focusing instead on the components of religious systems. I shall be concerned with whether religion

can be understood in terms of human characteristics that are themselves ubiquitous and were probably themselves the product of natural selection.[1] This is far from the first time that this approach has been adopted (see e.g. Boyer, 1994; Irons, 1991, 1996a, 1996b; Malinowski, 1944). To uncover the contributions of human universals requires two steps.

The first is the identification of pan-cultural human psychological characteristics of relevance to religious practices (Boyer, 1994). For instance, we all seek explanations for events that we do not understand: this propensity supports the belief in gods or spirits who intervene in the world (see pp. 88–91). Of course, it is rarely possible to prove that a given characteristic is completely pan-cultural, for data on every characteristic in every culture in the world are simply not available. In practice, therefore, it might be better to claim that they are 'widespread'. However, the characteristics that I shall mention seem so much a part of being human that I believe that reservation to be unnecessary. In addition, it is not essential that all the psychological propensities to which I shall refer are or have been adaptive in a biological sense – that is, that they foster or have fostered the survival or reproductive interests of individuals. I do in fact believe them all to be a product of natural selection, but to prove their adaptedness it would be necessary to show that, other things being equal, individuals with them are (or have been in the past) on average more biologically successful than those without: for the most part individual variation is insufficient to do this, and anyway other things never are equal. But the nature of such psychological characteristics is such as to further individual survival and reproduction, and it is reasonable to suppose that most were crafted by natural selection to solve problems posed to our ancestors in the environments that they encountered (Barkow *et al.*, 1992).

The argument in this book, concerned with the ubiquitous (though individually variable) human psychological characteristics that make religious ideas and practices acceptable and permit their passage across the generations, is therefore by implication Darwinian. However, successful transmission of values, practices and beliefs does not necessarily depend on their immediate consequences for reproduction. It may also depend on selection based on their relative salience and acceptability to other individuals, as in the spread of fashions (e.g. Dawkins, 1993). The properties that make them salient and acceptable may, but need not, be pan-cultural.

The second step involves assessment of the manner in which such characteristics contribute to the various aspects of religion. Here again, it is as well to note the precise nature of the claim being made. A given psychological characteristic may contribute to a given religious practice yet not be essential for it; and it may be possible to compare two phenomenologically similar practices, one of which does and the other of which does not depend on the characteristic in question. For instance, religious belief may be facilitated by fear of death in one context or in one person, by loneliness in

another; religious ritual may be made more meaningful by bright lights and music for some, by simplicity for others; religious experience may be facilitated by the presence of co-worshippers in some contexts, but can also result from solitary prayer. Nor is it possible to prove that a given aspect of religion depends solely on such ubiquitous aspects of human psychology: just as it is impossible to prove statistically a null hypothesis, so a psychological approach cannot disprove a claim that a deity is in some way involved. It can, however, render such a claim unnecessary.

Since the issue of pan-cultural psychological characteristics is fundamental to what follows, it is best to address it directly, though it requires a considerable digression. (Those who are familiar with the application of biological principles to human behaviour should move on to p. 21.) Here we will consider, first, what is meant by pan-cultural characteristics; second, their development; and, third, the ways in which they contribute to and interact with the socio-cultural structure. This will provide occasion for raising the questions of how they are transmitted across the generations and how pan-cultural characteristics can give rise to cultural differences; and finally how, even if they have arisen as adaptive characteristics in the course of evolution, they may later give rise to maladaptive or adaptively neutral behaviour.

Relatively stable behavioural characteristics

The search for pan-cultural characteristics of behaviour and psychological functioning which might serve as building blocks for more complex activities has had a long but not necessarily respectable history (Atran, 1993; Count, 1973). A major problem has been that until recently the search has focused on the wrong level of complexity (Hinde, 1987, 1991). It may be that all cultures have ritual practices and all cultures use fire, but these are pretty sophisticated patterns of behaviour: though they may influence the subsequent development of the society, an individual brought up without contact with other naive individuals would be unlikely to invent them, and they are unlikely to serve as basic building blocks for the great diversity of human behaviour. However, if we concentrate not on complex patterns of behaviour, but on more basic psychological propensities, a different picture emerges. This section is concerned with the nature of such psychological characteristics: their role in religious systems is discussed in later chapters.

It is a commonplace that we all have noses, though no two noses are identical. It is equally apparent that we all have patterns of ridges and furrows on our fingers, though the patterns are almost infinitely diverse. In the same way, we all have certain characteristics of perception, responsiveness to stimuli, motor patterns, motivations, emotions, cognitive processes, and so on, though there is always individual variation. We all distinguish figure from ground, have certain facial expressions, are (sometimes) willing to work

for food, and so on. More importantly, and especially easily overlooked as a commonplace, we all have basically similar sets of goals, and the ability to use variable means to attain them. I refer here not only to the more obvious goals of food, security and sex, but also to issues like avoiding pollutants, detecting the agents behind changes in our environment, making sense of the world by attributing events to causes, feeling in control of our life or attempting to achieve status, all propensities which, we shall see later, contribute to religious observance. These and other basic human propensities (or 'Relatively Stable Characteristics', Hinde, 1991) can reasonably be assumed to be present, to varying degrees, in all individuals, or at least in all those of a particular age/sex/class, and in all populations.

It is necessary to emphasise that the qualifier 'relatively' stable is important, and this can be illustrated from an early study of a different nature – the study of birdsong. Some species, like parrots and mynah birds, will learn and reproduce practically any sequence of sounds that they hear. Others, like doves, cannot learn to imitate vocalisations: even if reared in auditory isolation or with a member of another species they produce the song pattern characteristic of their own species. And some, like the chaffinch, have to learn the species-characteristic song by hearing it from another bird, but will learn only chaffinch song or songs whose note structure closely resembles that of chaffinch song (Thorpe, 1961; Zeigler and Marler, 2008). Still, what a chaffinch male learns depends on exactly what it hears, so that local dialects are produced. Here we have differences between species in propensities for one type of learning, but, in the same way, humans have constraints on what they learn and propensities to learn some things rather than others (Hinde and Stevenson-Hinde, 1973; Seligman and Hager, 1972). This extends beyond responses to particular stimulus configurations or the use of particular motor patterns to more complex cognitive characteristics such as the tendency to ascribe causation to changes in the world; to respond to sudden changes as signs of danger; to infer that individuals' actions depend on intentions; aversion to signs of decay; and so on. In the recent literature on religion these are referred to as 'evolved cognitive characteristics' (Boyer, 1994, 1998).

Of special importance for studies of religion are responses to ambiguity. When in doubt as to whether the cause of a change in our environment is animate or inanimate, we share with animals a tendency to presume that it is animate. Thus infant vervet monkeys may respond to a falling leaf as if it were a predatory eagle (Cheney and Seyfarth, 1990) and humans respond to a loud noise as though it signalled danger. The basis for such responses is presumed to be the need to avoid danger by discovering hidden agents, and it involves an overestimation of agency because it is better to be safe than sorry (Guthrie, 2002).

Furthermore, in some cases the range of stimuli that will elicit a particular response is strictly limited, while others can be elicited by a broad range of

stimuli. Similarly, the nature of the response given to a particular stimulus is sometimes quite tightly constrained, and constrained in a similar way across cultures, while in others it is malleable and variable across cultures. In the recent literature on religion this difference is referred to as one between 'open' and 'closed' behaviour programmes. Since the extent to which characteristics can be influenced by experience is variable along a continuum, I prefer the term 'relatively stable characteristic'.

It is necessary here to point out the danger of the 'instinct fallacy'. The term 'instinct' fell into disrepute when it was realised that it easily led to circular arguments, thus: 'Why does the bird do X?'; 'Because it has an X instinct'; 'How do you know it has an X instinct?'; 'Because it does X'. A suggestion that we have a propensity to interpret amorphous patterns as faces (see p. 66) gets support from studies of infant development, from the fact that 'good' representations are better than 'poor' ones, and that it is an everyday experience and probably a pan-cultural characteristic (Guthrie, 1993, 2002). But it is necessary to seek comparable support before a mechanism supporting a pan-cultural behavioural characteristic is postulated. Model building based on supposed 'relatively stable characteristics' requires great caution, especially if a mechanism is postulated.

Although my emphasis is on their ubiquity, it is reasonable to assume that such relatively stable characteristics were or are adaptive and evolved under the influence of natural selection. Thus we would not be here if our ancestors had not been reasonably proficient at finding adequate food, keeping themselves safe from predation, and reproducing. Survival and reproduction would also be facilitated in individuals who understand the relation of events to causes, and who could monitor their ability to do so: individuals kept in unpredictable environments develop neuroses (Seligman, 1975). Again, considerable evidence indicates that it has been biologically adaptive to achieve status within a group (Betzig *et al.*, 1988; Irons, 1998). Similar arguments apply to other psychological characteristics mentioned later in the book.

I am not making any claim that such characteristics are independent of experience, either in development or contemporaneously. Thus I am not reverting to the now outmoded distinction between behaviour that is innate, instinctive or biological on the one hand and behaviour that is experientially determined on the other. Nor am I claiming that such apparently basic propensities are unanalysable: this is a matter on which further light will be cast as we gain more understanding of the processes involved in human development. But the near-universality of such propensities is not controversial. Because of their ubiquity they may seem to be of little interest in explaining the complexity and diversity of human behaviour, but it is from their individual variability and from the *interplay* between such basic characteristics, and between them and the social and physical environment, that complexity and diversity arise.