



Economic Analysis and Organized Religion

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From: E. Jones and V. Reynolds (eds), *Survival and Religion*, Chichester etc: Wiley 1995, pp. 111-62

Electronic reprint 2006-01

May 2006

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Economic Analysis and Organised Religion

EKKEHART SCHLICHT

In this chapter, Ekkehart Schlicht works outwards from a psychological process towards an economic analysis of religion. Humans have a desire to understand themselves, the world around them, and to evaluate and justify their actions. This 'quest for sense' leads to specialisation in religious activity and to the formation of religious organisations. Schlicht explains in which sense it is appropriate to apply economic principles of analysis to the understanding of organised religion.

From this perspective, various aspects of religious organisation can be analysed, such as ownership structure, the product mix offered by the churches, the pricing of religious services, the market structure, and quality competition.

Some phenomena, such as the prohibition of the selling of indulgences, holy cows, or male and female circumcision, pose obstacles to economic reasoning and suggest that religious interpretation or, more generally, the 'quest for sense', should be seen as an independent driving force that works in conjunction with other forces to shape societal phenomena.

Economics tends to view institutions as optimal responses to scarcities, environmental conditions, incentive problems, and so forth. Many religious institutions appear, however, bizarre and wildly inefficient. Yet these institutions seem important, influence human behaviour, and are remarkably stable. This poses a problem for economic analysis and highlights its general quandary over integrating cultural factors in a non-trivial way. We may hope to enhance our understanding of the culture–economics interface by studying the particularly salient cultural phenomenon of religious organisation. This provides the motivation for this essay.¹

The recent literature on the economics of religion provides an excellent starting point, but it systematically sidesteps questions about the nature of religious activity.² It takes the specifics of demand and supply for religion simply as given. In this, it must remain *ad hoc*, and obliged to remain silent about the culture–economics issue. By treating the market for religion just like the market for apples, we will certainly find many features that these markets have in common, but since we exclude cultural considerations, we will be incapable of dealing with them; they will escape our analysis just like a stealth bomber escapes the enemy's radar. In order to spot something, we must employ other instruments. I shall thus draw on arguments from social psychology, in addition to using economic tools, in order to address the problems of economic–cultural interaction. By doing so, we may also find some footing for our assumptions about demand and supply, from which the features of religious organisation emanate; these will appear less *ad hoc*.

Religion is certainly an extremely interesting topic in its own right, and this justifies its analysis. I think, however, that an analysis of religion from the point of view of economics is of much broader significance for economics and social theory in general. Let me just stress two aspects.

Religion as a Freewheeling Superstructure

The interface between culture and economics or law and economics is of particular importance with regard to our understanding of the formation of economic institutions.

Although it seems that the effectiveness of economic organisation depends crucially on institutional features, economics is silent about all that. Applying standard economic analysis, it could be easily argued that making civic rights saleable will increase economic welfare for everybody; or that socialism is as efficient as capitalism if only the competences and responsibilities of the functionaries are sharply defined; or that institutions really do not exist but are only 'legal fictions'. All this points to a fundamental weakness of economics with regard to cultural phenomena, where it is absolutely imperative to improve our understanding in order to come to grips with quite obvious efficiency aspects of economic organisation on a theoretical level. To understand, however, how the superstructure affects economic performance, we need to know how the superstructure itself works. The easiest case is the case of freewheeling superstructures, or superstructures that are not too closely tied to economic exigencies. Several topics come to mind here. For just that reason Lévi-Strauss (1964–71, 1967) has taken mythology as his object of study. More closely related to organisational questions are, however, phenomena of organised religion and organised sports activities, and the systems of rules evolving there. One reason for being concerned with religion is, therefore, that I take it as an instance of a partially autonomous superstructure that I would like to understand in order to draw lessons with regard to economic organisation.

Religion as a Testing Ground for Models of Man

The application of economic analysis to religious phenomena may reveal the limits of economic analysis and may, at the same time, highlight aspects of human nature that economists neglect. Since religious activity is so important in almost all cultures, it is a feature any theory of man must account for, and I find it most unsatisfactory to assume that most of the people are most of the time ridiculously foolish and superstitious. Although I do not subscribe to the economists' assumption that human beings are always rational and selfish, I do not think either that they are never selfish and cunning, nor do I think that human beings are systematically schizophrenic in being always virtuous in some activities and

self-seeking in others. I would like to start from a model of man that encompasses all these features in a coherent way—or else I would know in fact that my theories rest on wrong assumptions to begin with. It seems to me, thus, that the combination of mundane economics and otherworldly religion is a particularly demanding testing ground for any model of man.³ Before developing a theory, as before developing an automobile, it may be advisable to invest in a suitable testing ground in order to be able later on to do some testing.

The chapter is organised as follows. In the first part I review briefly why and in what sense economic arguments are applicable to the analysis of organised religion. Parallels between the formation of firms and churches are stressed. Both are rooted in specialisation and the division of labour. They rely on routines that have proved successful (in some evolutionary sense), and so forth.

In the second part I turn to some characteristics of religious activity that may help us to understand various specific features in the supply of and demand for religion. The central idea here is that religious activity is rooted in the desire of men to understand the world and their own place therein, and to justify their actions and make moral judgments. This 'quest for sense' is, however, not confined to religious activity but permeates many aspects of culture. As the second part is written under the presumption that it presents fairly new material to the reader, I found it necessary to elaborate and illustrate the argument quite extensively.

In the third part, I turn to very specific questions: Why do we find specialisation in religious activity? What determines the product mix offered by the churches? Why do we find monopolistic market structures, with a few big churches dominating the market and sects as small specialised suppliers? What explains why the churches do not charge for their services individually but rather finance themselves through tax-like contributions, and how does all this relate to the 'quest for sense' or to other motives and functions of religious activity?

The last part of the paper deals with a problem of notorious difficulty in institutional analysis: the problem of inefficient but

persistent institutional arrangements. This pertains to the general question of whether religion matters in the sense that it really influences human behaviour in a significant way. In many ways this seems not to be the case. Religions are adaptive and malleable in many ways. It is hard to detect instances where religion drives behaviour directly, and not merely as an intervening variable. We find, however, inefficient, and even harmful, religious practices, like male and female circumcision, that can hardly be interpreted as optimal institutional solutions as brought about by evolution unless the specific nature of religious activity is taken into account.

In conclusion it is argued that those features of religious organisation that pose problems for economic analysis suggest at the same time that the 'quest for sense', as crystallised in interpretations, religions and other cultural phenomena, should be seen as an independent driving force of societal processes. It may be very weak as compared to other forces, but it may work cumulatively over the long term.

ECONOMICS AND RELIGION

Selfishness as an 'As If' Construct

Biology does not maintain that genes are selfish, it maintains simply that only those genes that behave as if they were selfish have survived in evolutionary competition and have spread in the relevant population. The assumption of selfishness is thus not an assumption about the mentality of genes; it is an 'as if' construct that can be defended as a proper description of the behaviour of genes by referring to the mechanism of evolutionary selection.

Economics certainly employs the selfishness assumption extensively when analysing individual actions in terms of a universal striving for pleasure and profit. In the context of institutional analysis, these stipulated motivations are, however, theoretical devices just like the assumption that genes are selfish. Such an approach can be defended by pointing out that there is continuous experimentation in the social and

economic sphere, and competition enforces successful behaviour on all market participants, which comes down to the assumption that all existing institutions maximise their competitive success, but tells us nothing (or very little) about the 'true' motives guiding economic behaviour.⁴

Thus institutions such as firms or marriages are viewed as brought into existence by the routinisation of competitively successful behaviour. The routines may thus be seen as a form of storage of the individual's tacit knowledge or the organisation's specific operational knowledge (Polanyi, 1962; Nelson and Winter, 1982, chapters 4 and 5). It seems, however, inappropriate to consider these routines as brought about by some kind of deliberate attempt to maximise economic gain: Routines are just there. It is essential that they are partially automatic, like skills on the individual level, and that they are typically stabilised by norms and sanctions rather than by any appeal to their usefulness. It is true that the striving for economic gain may motivate organisational experimentation within firms and markets, but this is not essential to the argument. Variation of any kind, and irrespective of the underlying motivation, will unleash competitive forces. The motives that cause modifications in marriage arrangements may, for instance, be rather remote from economic considerations in any narrow sense.

A study of British manufacturing firms illustrates this point with regard to firm organisation. The investigation was concerned with the interrelationship between organisational structure and economic success. One set of findings was summarised as follows: 'Again no relationship between the "rules" of management and business success appeared in the preliminary analysis of the research data. The 20 firms graded as outstandingly successful seemed to have little in common. When, however, firms were grouped on a basis of their production systems, the outstandingly successful ones had at least one feature in common. Many of their organisational characteristics approximated to the median of their production group. For example, in successful unit-production firms the span of control of the first line supervisor ranged from 22 to 28, the median for the group was 23; in successful mass-production firms it ranged from 45 to 50, the median of the group being 49; and in suc-

cessful process-production firms it ranged from 11 to 15, the median for the group being 13. Conversely the firms graded below average in most cases diverged widely from the median'.⁵ In other words, firms clustered around optimal organisational patterns, but this was certainly not the result of deliberate optimisation. Rather, it was the outcome of a trial and error process working in a competitive environment. Thus there is a tendency towards adopting those organisational structures that maximise competitive success, and we may look for similar tendencies working in the realm of religious organisation.

Organised religion can be analysed in a similar way with reference to competition in the 'market for religion': we may view organised religions, or traditions within a religion, as constituted by a set of routines, and may ask why certain routines spread and others disappear, and this may explain important features of organised religion. All this does not presuppose however, that the practitioners of religion, or the organisers of religious practices, act for mundane motives. On the contrary, we may even be in a position to argue that the dominance of certain purely religious motives in the absence of mundane concerns is competitively successful in a certain environment and thus prevails in so far as it brings about behaviour that succeeds in the market. The Quaker case illustrates that.

To apply competitive analysis in this 'as if' sense to organised religion does not mean, therefore, that one is bound to be cynical about the motives of the believers.

Demand and Supply

We cannot draw conclusions without presuppositions. Ultimately, our theories must rest on a reasoned conception of human nature. This need not be a complete model of man. For many questions it suffices to start with a schematic picture, with many traits left blank. In economics we assume, for instance, that there is a desire for commodities, but the nature of the desire is not spelled out and it is left open what the details of the commodities are that render them desirable. Economic analysis can, in many cases, work without going into these details.

In this vein we could start with the assumption that human beings have a desire for religion, and we may take this 'demand for religion' as given.⁶ There would be no need to judge whether this demand is sensible or not, or justifiable or not, or corresponds to ultimate truth, just as there is no need to evaluate whether a taste for chocolate or pop music is good or bad. *De gustibus non est disputandum*. The demand for religion would be just a matter of taste like any other kind of demand. Such a view would imply that there is no analytical difference whatsoever distinguishing the demand for religion from other demands. The demand for religious services would be assimilated to demands for other services of a ceremonial or consultative nature. (The fact that the teachings of the church may affect the demand for religion is not specific at all to religion; advertising achieves the same in the mundane sphere.) If we start with a demand for religion as a given, we must do the same with regard to all the particularities of the demand for religion that may contribute to the specifics of religious phenomena.

Similarly, the supply of religion may be analysed while disregarding the specific nature of religion. One would proceed by assuming that productivity gains could be obtained by specialising in the supply of religious services, and that institutions will form to provide them.

In this way, the demand for and the supply of religion may be discussed on an equal footing with other demands and supplies. This has the great advantage of creating a frame of reference where particularities in institutionalisation can be tied to particularities of the commodity in question. In principle, it should be possible to tie all specifics of organised religion to the specific features of the product. The argument can then be checked by looking at other markets where similar problems arise and the same arguments must apply.

By simply sidestepping the question of what religion is all about, economic analyses can actually shed light on many features of religious organisation. Such an approach—the usual approach—must, however, necessarily take as given all the particularities of demand and supply on which the analysis

builds. In this sense, it must remain *ad hoc*.⁷ By looking more closely into the nature of religion, we may be able to reduce this arbitrariness. At the same time, we may gain a better understanding of the interaction between economic and cultural influences. It is with this perspective that I turn now to some specifics of religious activity.

SOME CHARACTERISTICS OF RELIGION

The Quest for Sense

The nature of the demand for religion, and the supply conditions of religion, emerge from the specific nature of religious activity. Their fundamental unity and their importance for human beings distinguishes them from other human activities. All this may be obscured if we start from surface attributes of religious activity without linking them to the underlying driving forces.

It is in some ways even misleading to consider the demand for religion as being of the same nature as any other demand. In this I leave the view traditionally entertained in economics, which insists that no useful distinction can be drawn between a taste for chocolate, a taste for racial discrimination, or a taste for religion.⁸ So let me briefly characterise what I feel is central for any understanding of religious activity. This may clarify the point that a 'taste' for religion, like a 'taste' for truth, is more objectively obliging than other tastes, however widely shared. This has consequences with regard to understanding religion in so far as it explains particularities of demand and supply that would have to be presupposed otherwise. In this, it supplements the economic argument, but at the same time permits us to understand features of religious organisation that can hardly be understood from a narrow economic point of view.

My point of departure is that man has a desire to understand his surroundings, to understand his own place in the universe and to form theories about all that. This desire is the basis for all our thinking and our forming theories about the world, or, in my case, thinking about the formation of religion. It is the

quest for understanding or, in its corrupted form, for rationalisation. The strength of this motive is evident. Lévi-Strauss has presented detailed analyses of cosmologies, myths, and kinship systems in various cultures that establish its importance and, indeed, its invariance, across cultures; and modern social psychology has demonstrated experimentally the importance of the drive towards cognitive consistency and aversion to cognitive dissonance as a determinant of motivation and action in many fields.⁹

There is, however, another element of universal importance that is all too often neglected if a rationalistic distinction is drawn between value judgements and factual judgements. Cognitions and ethical valuations go together in a systematic way. Valuations are tied to the perceived meaning of things or situations, and what the circumstances demand, and a religious understanding of the world implies an understanding of what ought to be done to live up to the meaning of things.¹⁰

This fact—that valuations require reasons and that cognitions induce valuations—permeates everyday life. The everyday propensity for self-deception, the desire to rationalise various silly actions in terms of even sillier constructions, witnesses that there is a desire to supply reasons of interpersonal validity. Racism is defended with reference to studies about physical, intellectual or emotional differences among races; the role differentiation between men and women is linked to physical characteristics that predispose women to be the caretakers of the children. Consider further what is involved if biologists put humans and apes into the same category by pointing out their evolutionary kinship. This may be seen as a degradation of humans, it may also be seen as a revalorisation of apes, but it is not ethically neutral although such a discovery does not change the current nature of humans or apes in the least. Also, Galileo might have had a more pleasant career if his discovery had not been perceived at the time as undermining the authority of the church in questions quite unrelated to cosmology. Quite generally, people link their valuations and actions to their cognitions. This actually distinguishes a simple taste from a valuation. If I maintain that people should not be discriminated against according to

race, I will point out that I cannot find any ethically relevant difference between people of two different races. This refers to an objective feature of reality rather than to my taste. The selection of what I consider 'ethically relevant' may appear arbitrary, but again I will not consider this as a mere matter of taste; it is, and should be, arguable and valid quite independently of my idiosyncrasy; it should tie back to my understanding of the nature of things and beings. This is precisely what differentiates it from a taste for chocolate, about which I cannot argue any further.

I take, thus, as a second driving force behind the demand for religion, the quest for righteousness, that is interlinked with the quest for understanding in the way which I have indicated. People try to find guidance for their own behaviour or try to justify it in terms of statements about the nature of things, and they try to find out how they ought to behave by using arguments referring to facts and interpretations of these facts.

The quest for understanding and the quest for righteousness are thus joined to what may be termed a 'quest for sense'. I see this quest for sense as an irreducible factor of religious demand.¹¹ This does not exclude, however, the possibility that other more mundane motives, such as social, political and economic concerns, may play a role in determining religious demand. These factors may indeed be very important, but we should not neglect the quest for sense as an underlying motive.

An aside may be in place here. I neither wish to glorify human nature nor to depict it as contemptible, I would like to take human nature as it is. It should be stressed, therefore, that what I have said about the quest for sense may be interpreted in two opposite ways: The first interpretation would be that human nature is basically noble, and that, perhaps, human beings do not entirely belong to this world. The second interpretation is that all the apparent grandeur of the quest for sense is the result of a selfish desire for self-glorification: people may take pride in thinking of their own character as particularly noble and elevated and vastly superior to the mean nature of other human beings and, in order to prove that to themselves, they look for elevated motives that can be seen as

ranging above simple tastes, but they do this for purely selfish reasons.¹² We need not, however, embark on one or the other interpretation. Let us just take the quest for sense as given.

It could be argued here that the quest for sense must be the outcome of biological evolution: those genes that exhibited this feature have spread. This is certainly the case: everything that we find today has a history, and we may find that the quest for sense is rooted in socio-economic and genetic coevolution (Crook, this volume, and Odling-Smee, this volume). It seems, however, that the cognitive and emotional dispositions giving rise to this tendency in humans are fairly invariant in historical time and across cultures. We may safely take them as given in the present context.

The Transcendental as Good Continuity

Religions often deal with gods and other 'supernatural' forces. Although these beliefs may appear strange and even foolish to the non-believer, they are held by reasonable people who act quite sensibly in other contexts. This may imply that people have a split personality, acting sensibly in the economic realm and hopelessly irrationally in the religious context. There is, however, also the possibility that there is no gap between mundane and spiritual matters, and religious belief and religious activity form an integral part of all kinds of behaviour and cognitive and emotional endeavour. In the following I am going to argue that this is indeed the case. We find the same impulses to act, think and feel, working in all spheres of life, in religion along with economics, and including the present writer's attempt to understand religion, and the reader's attempt to understand this in turn.¹³

Consider the following sequence of numbers:

$$2, 4, 6, 10, 12, 14, 16, 18, 20 \quad (1)$$

If we want to memorise it, we may consider it as an arithmetic sequence with the '8' missing. The sequence makes more sense if we complete it with the number 8. It can be memorised and recalled more easily. The element 8 is what the gestalt psychol-

ogists termed 'good continuity'. We may even say that the element 'is objectively present' in the sequence, although it is not physically there. It does not depend on our wish or caprice what good continuity entails; it is objectively given and implied by the meaning of the series. Everybody who understands the series will come up with the 8 as the missing element, and the series makes more sense if this element is added.¹⁴

In science we augment reality in a similar way in order that it make sense to us. We calculate with imaginary numbers, add another dimension to our three-dimensional world or talk about 'mass' and 'gravity', although nobody has observed these abstract things. We should not say that these things are merely imagined and not real because we cannot touch them. We cannot touch numbers, after all. Although we feel that imaginary numbers are 'less real' than real numbers, all these concepts are neither subjective imaginations nor crude empirical facts. If we add these concepts to reality, reality makes more sense.

In this way we may understand that the quest for sense may render it, in a way, rational to introduce the transcendental.¹⁵ The transcendental should not be confined, however, to cognitive aspects alone. As argued above, the quest for sense refers also to moral justifications and their interconnections with positive knowledge. The series (1) requires the missing element for instance, and it would therefore be morally justified to supply it. We should consider moral justifications in the same vein and should conceive things in this broader setting.¹⁶

The view of the transcendental as good continuity has some advantages. It explains the objective character attributed to religious phenomena; it suggests an explanation for what seem to be systematic interconnections between the character of society and the religions emerging in such a society; we need not postulate a special 'taste for rites' to explain the demand for religion in its specific forms; and we even may understand why the old writers, such as Smith (1976, p. 312), drew a sharp distinction between superstition and true religion, which they lumped together with philosophy and science.

Apparitions

The tendency to make sense out of what we observe—the quest for understanding—manifests itself nicely in apparitions, and the following discussion is intended as an illustration.

An apparition appeared quite recently in Kenosha, Wisconsin, USA. The Minneapolis *Star Tribune* of 5 May 1991 reported:

You do not need to be a believer to see the image of Jesus on the Church wallpaper, but it helps . . . Worshippers have been seeing a figure of Jesus there since April 7. But they're also seeing many other things. Some see a large face just over the St Francis statue; others see the entire last supper, Jesus in the Garden, the Blessed Mother, angels . . . 'I think it's soot on the wallpaper, but I also think it wouldn't have formed this way unless it was formed by the hand of God', said Julie Jaeger of Kanosha who brought her husband and children . . .

Dolores Marinelli's eyes sparkle as she tells of first seeing the image . . . 'I looked up and knew right away it was Jesus. I looked away and then looked back and it was still there' . . . She has been questioned by a world full of skeptics. Many people ask how she knows it's Jesus. No one knows exactly what Jesus looked like. Many ask how she knows the figure is a man. Maybe it's one of the other apostles. Maybe it's just soot.

She just smiles. She knows. 'It just depends on your faith. I just know who I saw, and it's Jesus'¹⁷

It seems clear that the pattern on the wallpaper makes sense if you have faith, but does not make sense if you are not a believer. Holding a faith may be considered rational since it explains and gives sense to phenomena that would otherwise remain unexplained. At the same time, an apparition will strengthen the faith of the faithful, and it will strengthen the ethical positions associated with the belief.¹⁸ On the other hand, the nonbeliever will feel inclined to give mundane reasons that explain the apparition. This exemplifies the same quest for understanding that drives the believer.

Scientists actually work in very much the same way as the faithful do when faced with a new observation. Statisticians try to detect patterns in data, and other scientists try to fit whatever they observe into their world-view, as embodied in their theories. In earlier times, many astronomers were also astrologers. Or look at economics. Economists tend to perceive

all actions as the result of a striving for profit and gain. Whatever appears is seen, so to speak, as an apparition of utility maximisation. Consider some examples.¹⁹

Becker and Murphy (1988, p. 675) propose 'A Theory of Rational Addiction'. They write:

Rational consumers maximise utility from stable preferences as they try to anticipate the future consequences of their choices. Addiction would seem to be the antithesis of rational behaviour. Does an alcoholic or a heroin user maximise or weigh the future? Surely his preferences shift rapidly and his mood changes? Yet, as the title of our paper indicates, we claim that addictions, even strong ones, are usually rational in the sense of involving forward-looking maximisation with stable preferences. Our claim is even stronger: a rational framework permits new insights into addictive behaviour.

The book by McKenzie and Tullock (1975) on 'The New World of Economics' deals with many topics outside the traditional economic sphere from an economic point of view, and illustrates nicely how economists integrate various phenomena into their frame of reference.²⁰ With regard to sexual behaviour they write, for example:

The amount of sex that is produced and consumed is not in our view determined by the gods. Granted, men and women have biological drives and they are not constrained on sexual behaviour. Men and women, however, have some control over these drives (as a general rule) and do not engage in sex to the extent of their biological capabilities. The amount of sex produced and consumed is the result of the interaction of individuals within what we might call social space (or the market). For an explanation of how the amount of sex actually consumed and produced is determined, we must look to the forces which these individuals bring to bear on this interaction process.

A restatement of principles that have been intrinsic in much of the discussion that has gone before would be helpful. These principles are the laws of demand and supply. We assume that the demand curve for sex by either males or females is downward sloping and that, as a reasonable generality, the market supply curve of sex is upward sloping. Therefore, the quantity of sex supplied will increase with the price paid for it . . .

If the supply and demand for sex were determined solely by biological drives, and if these drives were equal for men and women (which may not be the case) . . . the price, or non-money payment, paid for the sex would be zero . . . Such circumstance does not, however, realistically reflect the general state of the world. Women are restricted from fully revealing their biological drives. They bear a substantial portion of the

risk costs associated with pregnancy . . . At a zero price, there will then exist a shortage of sex to men . . . We might anticipate, therefore, that non-money payments in any number of forms (security, dining out, etc.) will be offered. (McKeuzie and Tullock, 1975, pp. 57–8)

Their interpretation of Maslow's theory of motivation reads as follows:

Maslow apparently has observed that people fulfill a higher percentage of their psychological needs than other needs. Our line of argument suggests that this may have been the case because the price of psychological need fulfillment is lower than the prices of fulfilling other needs. (It may also be that the demand for psychological satisfaction is more elastic than other demands . . .). (McKeuzie and Tullock, 1975, pp. 42–43)

It should be clear from these examples how the quest for understanding leads economists to view the world in a very particular way. A Freudian interpretation may look quite different.

Any interpretation of this sort, religious, economic, or other, carries normative implications. Our quest for righteousness will lead us to ask what would be suggested to put things in order again, and we will do so on the basis of the interpretation chosen. Consider just the example of addiction. If addiction is seen as a deliberate and free choice, this suggests quite other policies than if it were held that addicted persons are not their own masters anymore. Further, if the rational addiction model is successful in explaining many observed features of addiction (as the authors claim), this will strengthen our belief in the economic world-view in general, along with the normative implications going with such a view. We want to put things into their natural order, and the natural order will be suggested to us by the economic model in this case.

Uniqueness

All religions claim that theirs is the true religion and, by implication, that other beliefs are false. Further, it seems that we cannot hold two different beliefs at the same time with ease.²¹ Let us call this the 'uniqueness' feature.

This feature is not confined to religion, but is manifest in many

cognitive and emotional activities. Consider Figure 3.1. It is not quite clear whether this displays the word 'ZOO' or the number '200'. We cannot hold, however, both interpretations in our mind at the same time. (The second and third characters are actually ambiguous, they can refer to the digit '0' or to the letter 'O'. Which interpretation is to be chosen depends entirely on the context.)

As a further example, consider the cube in Figure 3.2. This can be seen in two different ways, either from above or from below, but again we cannot hold the two different interpretations in our mind simultaneously. Note also that there is no continuum of possible interpretations: there are just two different and discrete interpretations, and nothing in-between.

In general we cannot think about two different things at the same time, and it is also rare that we are happy and sad, or angry and at ease simultaneously.

In a similar manner, there is a tendency to stick to one religion at a time. We cannot, however, switch as easily between differ-



Figure 3.1

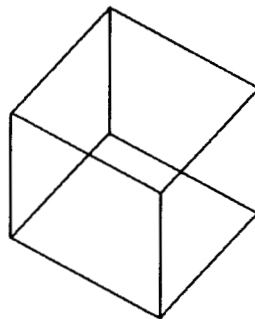


Figure 3.2

ent interpretations of the world as, say, between different interpretations of the cube in Figure 3.2. This induces a natural tendency towards exclusiveness and may favour monopoly in religious activities, so to speak. This may help us to understand some organisational features of religion.

The uniqueness feature indicates a tendency of religious activity, but is not an immutable trait. People can obviously switch their religious beliefs, just as they can switch their lawyer, but switching costs seem to be high, comparable perhaps to the costs of emigrating: such a move requires us to remould our entire personality. Yet this is not impossible. Further, people may very well hold different inconsistent beliefs at the same time, like being Roman Catholic and believing in superstitions that the church condemns. Still religious endeavour is related to truth, and truth is seen as fundamentally unique. This seems to be responsible for the strong tendency towards uniqueness in religious activity, which is, however, only a tendency.

Coherence and Accentuation

The quest for sense induces us to look for good continuity, and to remove ambiguities.

Ambiguities can be removed by adding features that strengthen the one and discount the other interpretation. Figures 3.3 and 3.4 are obtained from Figures 3.1 and 3.2 by adding something. This renders them less ambiguous.

These examples illustrate that the framing of an item—how it is placed into a context—may change its meaning not only marginally, but fundamentally.²² By framing, religions may affect the meaning of events in a fundamental way by creating a more comprehensive context. This may render the meaning of everything more definite. In this way, religion accentuates meaning.

Accentuation also takes place on a more elementary level. We perceive, understand, memorise, and recall various items by perceiving them as variants of a particularly clear and simple prototype specimen, a schema, and we note the difference

3Z00

Figure 3.3

between the item and the schema that it invokes.²³ We may thus describe a swan as a bird with a long neck, or Figure 3.5 as a triangle with a dissected peak.

Our perception, memory, and recall tend to maximum clarity. This means that divergences between the schema and the item it refers to tend to be either accentuated or minimised. These effects of 'levelling' and 'sharpening' are quite systematic and may be seen as an attempt of our minds to achieve maximum clarity.²⁴ If Figure 3.5 is reproduced from memory, the size of the dissection will usually be exaggerated. Many optical illusions build on this effect. At the same time, these 'distortions' are highly functional in that they permit superb pattern recognition in diffuse environments.

In religion, we find all these tendencies reinforcing each other: good continuity gives a definite meaning to other-wise ambiguous phenomena. It reduces uncertainty and, at the same time, accentuates certain aspects while discounting others. All this builds on a discontinuum of possible interpretations. (There is no continuum between Christianity and Islam.)

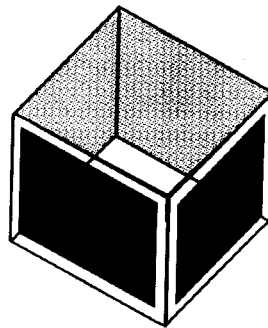


Figure 3.4

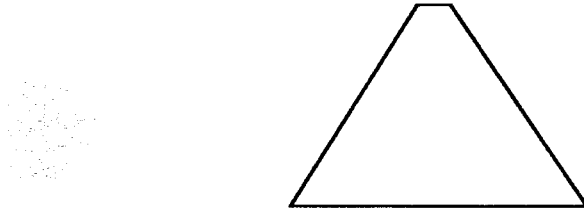


Figure 3.5

The many rituals that we find in religion (but not only in religion) may be seen as accentuations. They highlight certain events and embed them in the religious universe. This sharpens the meaning of the events and stresses the coherence of the religion at the same time.²⁵

Reliability and Coherence

Many religious teachings make assertions that are nearly impossible to assess. This induces a pervasive reliability problem. Whatever is asserted about the hereafter or about the life of the dead and the intentions of the spirits is hard to test. The believer must rely on the trustworthiness of the religious teachings. Religious services are, to a large extent, 'credence goods'.²⁶

Similar reliability problems arise in other circumstances. Whatever is asserted about the conditions on the surface of Mars is hard to test by direct experience. Nevertheless we rely on the astronomers' theories because they offer good continuity of our earthly experience and account for many observable astronomical regularities. This renders the astronomers' predictions credible even if they are not independently verifiable, and we confidently build on them when sending a spaceship to Mars.²⁷

The same holds true with regard to religion: unverifiable claims become reliable if they are tied together with verifiable propositions in a coherent way. The reliability problem renders coherence extremely important on a practical level. Coherence

is not only required by our quest for sense, but also to overcome reliability problems. This may help us to understand particular organisational solutions in the realm of religion.

RELIGION AND ECONOMIC INCENTIVES

Specialisation in Religious Activity

Starting with the quest for sense as a universal human characteristic, we may ask why this may give rise to specialisation in religious activity, and ultimately to organised religion.

The quest for sense will give rise to a demand for interpretation and advice. We will improve our understanding of the world by exchanging views with others in order to make sure that we have not overlooked something important or have drawn fallacious conclusions and acted in a wrong way. Those people with the most expertise will be able to give the most valuable advice, and by helping in this way, their expertise will improve further. In addition, *ad hoc* interpretations made to meet immediate demand are prone to induce various contradictions with other observations and interpretations, whereas the advice given by experienced sages tends to be more systematic, less contradictory, and more satisfactory.

We may summarise this by saying that such advice can be characterised by large fixed costs and learning-by-doing effects. This will lead to specialisation for economic reasons. The best religious service can be obtained from those with most experience in the field, and their activity will increase their competitive edge still further. If somebody has a problem, he will consult the specialist. Given the nature of the service, we should expect, therefore, that some persons specialise in the supply of religion, just like others specialise in other activities: the lawyers specialise in legal advice, the physicians specialise in health advice, and so forth.

In the end, a division of labour and specialisation in religious service will occur. Religion will not remain confined to simple household production.

Limits to Specialisation

This argument does not explain, however, why specialisation does not go further. Why are there no religious specialists for birth, and others for marriage, and still others specialising in the confession of particular sins, just like there are lawyers specialising in criminal law and others specialising in divorce? Why is specialisation not pushed further?²⁸

Coherence It may be argued here that the quest for sense establishes a demand for coherence across different realms of life. Further, coherence will contribute towards mitigating the reliability problem. This establishes the desirability of a certain minimum of coherence in the teachings.

This argument does not actually explain why the division of labour is not pushed further in the market for religion, since similar co-ordination problems occur in other fields. The usual market response is still specialisation, but some people specialise in co-ordination. This gives rise to the firm.²⁹ We find for that reason that partnerships emerge in law, architecture, consulting and medicine. Why no partnerships in religion? So the coherence argument would not suffice to explain why we mainly find general-purpose priests.

Economies of scope Another line of argument to explain the limited specialisation in religious activities would be to look at economies of scope. Economies of scope arise in the production of two commodities if it is cheaper to produce them jointly rather than separately. Similarly, there may be cost advantages if a certain bundle of religious services is supplied jointly. Possible reasons are listed below.

1. Informational interlinkages. Economies of scope may occur if the various religious services are interlinked in such a way that specialisation would require a multiplication of information flows. Assume, for example, that each specialised activity requires some knowledge about a certain characteristic of the customer. In this case, specialisation may be uneconomical because this would render it necessary to produce the same information several times for each specialist, and it may be argued

that priests do not specialise for the same reasons as family doctors. This arrangement economises on information flows.

2. Reputational interlinkages. Economies of scope may also occur through reputational effects. Many promises made by a priest cannot be checked easily with regard to their validity since they often refer to the hereafter. The reliability problem can be eased if the priest is also engaged in activities where his performance and trustworthiness can be monitored; he may earn a reputation for reliability there, and this will render his less tangible promises more reliable too. Such an argument must assume that the reputation for reliability rests mainly with the individual priest and not so much with the institution he is associated with. Otherwise an institution may earn a good reputation even if it comprises many highly specialised employees, and reputational interlinkages would contribute to explaining the product range offered by a firm, but not so much the lack of specialisation within a church. It will be argued below that the emergence of monopolistic churches may be seen as a market response to a severe reliability problem, and reputation should actually rest with the church.

Organisation and Ownership

Many religious services are non-rival: many may attend the same mass at the same time. It may even be that the mass becomes better the more people participate: religious services may be 'crowding goods' (Iannacone, 1992). All this leads, in a range, to increasing returns to the size of the congregation, and this renders the organisation of religious activities useful.

Religions are, however, usually not supplied by profit-maximising firms. Even if churches run enterprises on a large scale, as the Mormons do, they do not distribute the profits openly to their members; rather the profits are used to provide additional services for the members or further commercial activities. In this, churches can be seen as non-profit firms, and the features that give rise to non-profits can be found in churches. All these institutions provide commodities where there is no rivalry in consumption and people rely on the quality of the service without being able really to control it (Ben-Ner and van Homissen, 1991). The reason is that the profit motive would introduce an incen-

tive to cheat on hidden quality aspects, and so the reliability problem makes the non-profit constraint emerge as a competitively dominant feature of church organisation.

For similar reasons, ownership is restricted to the members of the church, and non-transferable ownership shares are issued. This is interpreted by Ben-Ner and van Homissen (1991) in the context of non-profit firms as a means to prevent the concentration of control. This may often work, but it seems to have failed in the case of the Catholic church with its fairly concentrated power structure.

The Product Mix

Churches offer a certain product mix: they supply, apart from their services, rituals for birth, marriage and death, they run kindergartens, vacation enterprises, nursing homes and hospitals, but they do not offer, as a rule, birthday parties or banking services. The economic arguments relevant here refer again to economies of scope.

If several rituals are offered by the same church, this certainly involves economies of scope of some sort. The facilities used are the same, and their importance is heightened by interconnections of meaning between them. It seems hard to understand, however, why there should be economies of scope involved in supplying marriage rituals and kindergartens jointly and at the same time not supply the flowers and photographs, dresses and dinners that go along with all the rituals, not merely with marriage.

The problem is difficult to tackle because the legal and fiscal system often treats religious organisations quite differently from ordinary business firms. In Germany, religious groups may enjoy significant tax advantages and their employees are largely not covered by the general labour law. This leads to considerable cost advantages. Still, some comparisons can be made. Consider the Bhagwan sect. It runs firms in construction, art, sound engineering, jewellery and discos (Der Spiegel, 1984). This makes economic sense. The members of this sect, just like monks and nuns, do not mind working very hard and

very long. To them, working is worshipping, and it seems reasonable that they take up that kind of work which gives the highest return, and they will be in a position to out-compete many private suppliers. The same seems to hold true for the established churches: They have lower labour costs and lower transfers payable to the state authorities, and they do not fall under the jurisdiction of the labour unions. All this gives them a competitive edge.

As a result of preferential treatment, traditional churches enjoy a similar competitive edge in nearly all spheres of economic life, but they seem to confine their concerns to some traditional activities. This needs to be explained. It seems clear that the churches do not run discos, since this would infringe on coherence: it seems not quite compatible with their teachings and would render them less trustworthy. (Their youth clubs in church halls may, however, engage in these activities.) In contrast, running discos does not infringe on coherence in the Bhagwanis' religion. It seems, however, hard to make a similar point with regard to the production of double pane windows, where the Bhagwanis were quite successful. Why should this infringe on consistency? Ideas come to mind of course. It may be that the churches lose consistency if they go too much into mundane businesses; all their endeavours should be linked to their mission. Otherwise the identity, and therefore the trustworthiness, of the product would suffer. After all, when Volkswagen bought the typewriter firm Triumph-Adler, it continued to sell the typewriters and computers under the tainted old name and not under the 'good' name Volkswagen, and its Audi division is run independently in order to preserve the luxury class image of these cars. There is, however, another restriction imposed by the consistency requirement: Church businesses will be scrutinised much more with regard to their moral standards, and this restricts their possibilities and may put them in a disadvantaged position, compared to private firms.

The problem does not seem fully solved, however. It seems to me that the coherence line of argument would require that churches engage in banking activities where reliability plays such a prominent role as well. Church-owned banks would have a stronger incentive to avoid fraud than privately owned

banks, since fraud would hurt their credibility in their religious activities. This seems to be a mechanism for successful banking, and for attaining massive economic influence and power, and it should be seen together with the fact that the Catholic church was actually engaged in borrowing and lending activities on a large scale in the Middle Ages and is still engaged in banking activities.³⁰ It may, however, be the case that the introduction of money, which belongs to the mundane sphere, does interfere with the understanding of religion, as it has evolved in the Catholic church, and would thus infringe on coherence. The coherence requirement may pose a 'meaning constraint' on the churches, preventing them from going into banking.³¹

Consider, however, activities like kindergartens, where the churches subsidise rather than earn profits. These enterprises can be understood as services to their members and also as marketing activities to attract new customers, childhood religious instruction being associated with future church attendance (Iannacone, 1990, p. 309). Note also that the political parties finance youth groups for perhaps similar reasons.

Pricing

It is a characteristic of churches that they finance themselves through contributions. With respect to regular gatherings, this is to be expected from economic considerations. If entry fees were charged for attending a mass, people would pay a certain amount of money. If they were required to pay this amount of money as a fixed fee, they would be better off, since they would be free to attend additional masses at no cost, and the church could even charge a little more. If church attendance is a 'crowding good' that becomes the more desirable the more people consume it, this argument will even be strengthened (Iannacone, 1992). In short, what applies here applies to all health clubs, sports clubs and so forth, which usually charge fixed fees rather than price their services individually.³²

With regard to individual services like confessions and ceremonies, such an argument does not apply, however. Similar activities elsewhere, like legal and psychiatric counselling, are

charged individually. It could be argued here that a confession is actually more to the church's benefit than to the benefit of the individual making it.³³ Such an argument is further vindicated by the fact that some sects charge heavily for various seminars offering salvation, which is clearly a matter of self-interest. In contrast, the reason for behaving in accordance with the wish of God is, in many religions, not tied to a selfish desire for individual well-being or afterlife consumption, but rather to self-denial and doing good for its own sake or for the love of God. This seems to be a quite different story, closer to a gift-exchange relationship that would be hurt by introducing money, as Titmuss (1971) has argued. We see here again that economic analysis is to be supplemented by a 'meaning constraint' in order to understand specific organisational features.³⁴

A similar 'meaning constraint' must be invoked, it seems to me, if we look at the fact that the selling of indulgences has been prohibited in the Roman Catholic Church and is not a dominant form of penance in other religions. From an economic point of view this practice makes much sense. Penances that involve great hardship to the penitent and serve nobody else are clearly Pareto-inferior. Ekelund *et al.* (1989, p. 316) argue that the individual priests had an incentive to overcharge, and this 'could cause disgruntlement among the faithful and, if not checked, could make their demand more elastic, ultimately reducing the profits flowing to the papacy.' This argument is in two ways problematic. First, it ignores the possibility that the '[competitive] priest-sellers' may equally have had an incentive to undercharge: by offering better terms, each priest could attract more customers, in particular the rich, and thereby earn more money. Second, if there was any incentive to overcharge, there was also an easy way to curb this incentive: the penances could be made payable directly to an agency of Rome. Thus the prohibition of selling indulgences cannot be attributed to problems of overcharging, it must rest in the fact that the selling of indulgences was considered inconsistent with the teachings of the church. It was not their excessive price that must have been considered detrimental but rather the fact that they were available for money that marked

them as belonging to the mundane sphere.³⁵ (There was certainly no problem with undercharging in practice since the selling of indulgences continued during its prohibition, but this is, as I said, hard to explain.) In the end, we must conclude that an economically efficient practice like the selling of indulgences was abandoned because it posed a threat to the coherence of the creed.

Market Structure

From an economic point of view we may say that religious services are usually supplied under monopolistic conditions: we find one big market leader, or two of them, and in addition the sects as small specialised suppliers. This feature must be explained. We may also ask what public policy we should recommend with respect to such markets: should we enforce competition, or should we encourage monopoly? Should we finance the churches publicly through taxation or leave it to their private initiative how they obtain their income?

If religious services are supplied by individual priests under competitive conditions, this may have some undesirable consequences. Priests may try to maximise the size of their congregation by lowering their religious standards, denounce their competitors, and spoil the market. Hume expressed this as follows: 'Each ghostly practitioner, in order to render himself more precious and sacred in the eyes of his retainers, will inspire them with the most violent abhorrence of all other sects, and continually endeavour, by some novelty, to excite the languid devotion of his audience. No regard will be paid to truth, morals, or decency in the doctrines inculcated.'³⁶

This kind of cutthroat competition can be avoided by restricting market entry (Leland, 1979). The Indian caste system provides an example, with professions tied to caste. Professional associations in law and medicine provide other examples. If the suppliers of religious services can avoid cutthroat competition by some agreement and this improves efficiency, one would expect entry restrictions and monopolisation to appear in such a market. Note that the monolithic market structure associated with the Roman Catholic church has

evolved over time, and Rome had presumably mainly a co-ordination function at the beginning.

The argument does not explain the monopolistic market structure fully. There is a similar potential for cutthroat competition among physicians and lawyers. Similar problems arise here since quality cannot be judged easily by the customer, and reputation therefore plays a major role. This creates an incentive to create a reputation rather than offering a good service. The market response has been heavy regulation, mainly by means of entry restrictions, but not full centralised monopolisation. Why these different outcomes?

In many other markets reliability problems have been solved in still other ways. Consider products where reputation is important and quality is ill defined. Here the manufacturers of perfume, watches, luxury cars, and so forth, fix definite standards for the quality of decoration and service of the retail shops. The quality of these products largely rests in their 'image', and not so much in objective features. Competition may induce suppliers to sell a brand perfume by the gallon at a stiff discount. This would spoil the market and must be prevented. Similarly, means must be found to prevent individual priests from offering eternal bliss too cheaply. It may thus be argued that uncertainty about the quality of the product leads to a centralised mechanism that guarantees, and in fact controls, the quality of the product. For many other products, franchising emerges as a market solution to cope with comparable reliability problems, and religious organisations have been interpreted indeed as franchising arrangements (Ekelund *et al.*, 1989, p. 317; Dolin *et al.*, 1989).

However, the services of a lawyer or a physician seem to depend very heavily on their individual ability, and not so much on the quality of the tools they employ, or the materials they use. In other words, they produce idiosyncratically. In contrast, the priests largely produce standardised products. In fact, the standardisation is a major aspect of quality since it contributes to reliability by increasing consistency. This creates a tendency towards monopolisation and makes it understandable why we do not find independent priests competing

against each other. The high costs involved in switching from one creed to the other also contributes to monopolisation.

As a matter of fact, we do not find monopolistic market structures everywhere. There are many rather small Protestant churches in the USA. As is to be expected, there is much more religious advertising than, say, in Germany, but quality deterioration is somehow prevented by a franchise-type mechanism. At the same time, many Protestant churches in the USA are centred around the individual preacher. This expresses itself in various ways: the name of the preacher may be written in large letters at the entrance of the church, advertisements are personalised, and people seem to choose a church according to the preacher. This may relate to the fact that in Protestantism the only reliable source of religion is the Holy Bible anyway, and this lessens the push towards central control.

Interesting empirical suggestions arise here concerning a comparison between Christianity and Islam: Islam seems much better defined and hence less in need of an authority that establishes quality standards. It is also less centrally organised. A similar claim could be made in a comparison between the Catholic and Protestant churches. Such a dependency of religious organisation on the nature of the faith would instance that cultural factors can influence institutionalisation in a somewhat independent way.

The monopoly interpretation makes many features of church organisation, in particular with respect to the Roman Catholic church, understandable. The account given by Ekelund *et al.* (1989) is indeed impressive. They show that there was an elaborate system permitting lucrative rent collection by Rome, and that the prohibition of usury was in the interest of the church since it permitted the church as a borrower to obtain cheaper loans, and as a lender to prohibit competition while tacitly charging fees that it condemned as usurious in others (Ekelund *et al.*, 1989, pp. 324–326). The monopoly view, in conjunction with the nature of the product, would suggest some other features. Since the services are not transferable to other persons, we should expect price discrimination, but this is not a feature that catches immediate attention.³⁷ We should also find product differentiation to suit different groups of

customers, and we indeed find some tolerance for different traditions within the larger churches. Too much differentiation would infringe, however, on overall coherence, and so we find that the churches try to restrict variation below what the denominations would prefer. Further, monopoly does not exclude potential competition. Even IBM must share the computer market with rivals. Since it seems very easy, in principle, to set up a new religion, the market for religion seems to be contestable, were it not for the high switching costs that dissuades adults from switching away from the belief inculcated into them as children.

Quality Competition

Religions promise heaven and hell. Heaven is desirable, hell is not.³⁸ Generally, firms prosper by offering products that are valuable to consumers. It seems therefore that there should be a tendency to improve the product by stressing the desirable features and attenuating the undesirable ones. This would come about either by competition between the religions, or by competition between different factions within a religion. In other words, quality competition should work in the field of religion in the same way as in other markets. As hell is not valued by consumers, this attribute should be minimised, and paradise should be certain. However, we do not observe an erosion of the threat of condemnation, and an inflation of promises for paradise. Thus the economic approach seems to be misleading.

This is, however, much too easy an answer. We should look at the problem more closely. It may be that the promise of hell for the sinner will act as a sorting device for new customers. The members of a religion may simply enjoy the company of virtuous people, and abhor vice. If vice is stiffly penalised, this will repel the sinners to the benefit of the members and may thus be an appropriate market response.³⁹ Since vice affects the well-being of the other members adversely, there should be a penalty on vice for the members such that each member has an incentive to take the negative impact of his own behaviour on the others into account. Further, prohibitions that seem to have no utility to the members may limit activity outside the

religious sphere and therefore increase religious participation, which may be valued by the members. It is therefore quite compatible with this line of argument that each member feels constrained by the teaching of the religion: The benefit generated for others by obedience outweighs the potential benefit the individual may obtain by neglecting the rule. This will limit the erosion of hell.⁴⁰

Note that this gives at the same time considerable power to the priests who interpret the religion, especially if the church is run as a near monopoly!

Unintended Consequences

Religious activity may be analysed by looking at the motives of the believers, and by trying to understand their actions. This may help us to understand the rise and nature of religious organisation. Religion may also have broad consequences for society at large, which are unintended by-products of religious activity from the point of view of the faithful.

It has been stressed by various authors that these unintended by-products are extremely important. Religions may promote honesty, and this reduces the necessity for surveillance and other unproductive activities. (It should be noted here that virtue may often have good, but sometimes also dire consequences.) In the economists' language, it reduces 'transaction costs' and may involve tremendous gains for society at large (Iannaccone and Hull, 1991). Religions may also be thought of as aligning reproductive behaviour with environmental conditions (Reynolds, this volume, Reynolds and Tanner, 1983). The evidence is, however, unclear with regard to modern societies, see below. Further, religion may foster what Einstein (1982, p. 52) called a 'religious attitude' on which science builds '... the conviction that the universe of ours is something perfect and susceptible to the rational striving for knowledge', but often religions have also hindered science. This ambivalence is well illustrated by Jones (this volume).

All these features are to be seen as what they are: unintended by-products of religious practice, just as the 'Teflon' pan was an unintended by-product of the first expedition to the moon,

but does not explain that endeavour. Still, these unintended by-products may be very valuable and may make a society flourish that has adopted a religion with particularly favourable by-products (Hull and Bold, 1989, p. 6).

In so far as the unintended consequences of religion give rise to benefits for society at large, these benefits constitute what economists call 'positive externalities', and they give religion the character of a (partially) public good, putting the churches and schools in the same category. (This is actually the view adopted by Smith, 1976). We should expect, therefore, that activities of this sort tend to be subsidised by the community. Hull and Bold (1989, pp. 6–7) argue that this should be the more pronounced with regard to religion the less other institutions are available that perform the function. Many advocates of religion actually stress the positive effect of religion on morality, and that this is to the benefit of society, but such a defence certainly does not vindicate religion for its own sake. After all, we do not fly to the moon in order to develop 'Teflon' pans.

Religion as a Seed Crystal

Religious congregations may lend themselves conveniently to serve other than religious functions. Weber (1949, pp. 207–218) illustrates nicely how membership of a respected sect in the USA around 1900 served as an important credential, comparable perhaps to a major credit card today. 'If a member of a sect moved to another place, or if he was a commercial traveller, he took a certificate of his congregation with him that made it possible to obtain credit everywhere'.⁴¹

Religious congregations indeed perform many social functions that could also be attached to other kinds of clubs, like golf clubs, rifle associations, and singing-clubs. In this, organised religion may act simply as a seed crystal for other social formations, but these are, to a large extent, accidental to religious organisation. They may stabilise it, or may destabilise it, but these features should vary from society to society and cannot easily account for the broad regularities across religions, e.g. with regard to worship, marriage, and death rituals, that we observe.

THE FORCE OF RELIGION

The Behavioural Impact of Religion

On the surface it seems that religion has an important impact on behaviour. The impact of religion, however, remains controversial.

Argyle and Beit-Hallahmi (1975) have surveyed research on this. Beit-Hallahmi (1989, p. 62) concluded that religion does not have any considerable effect on secular behaviour except in two areas: sexual behaviour and drugs. Similarly, Medoff and Skov (1992) find no impact of fundamentalism on social deviance, except sexual morality. Coleman (this volume) finds that religious affiliation has no significant effect on fertility; Iannaccone (1993) reports that religious fundamentalism in the USA has little substantive impact on behaviour, or on views about economic policy; and Kuran (1983, 1993) argues that the economic teachings of Islam have not influenced economic behaviour very much. Jones (1988, pp. 93–107) points to the malleability of Islam, Hinduism, and Confucianism. These religions posed no obstacle to growth.

Everyday experience also confirms a high degree of malleability of religions. Churches change their position with regard to the role of women, abortion, divorce, homosexuality, and so forth, to comply with current social trends. It is interesting to see how this fits with the idea of good continuity. Feminist theologians seem to be worried by the idea of having equal rights for men and women on earth along with a patriarchic heaven, and so they bring heaven more in line with current trends by insisting that current conceptions of religious affairs are due to misreadings. 'Things like that aren't intentional misreadings; they just come from the culture of the time' (Allen, 1991b, p. 7B, quoting the theologian Chris Franke). In this way, psychological dissonances can be removed by a suitable exegesis of the sacred texts, a phenomenon that perhaps cannot in itself be explained by economic reasoning alone. Note that these developments occur among Christians, Muslims and Jews at same time (Allen, 1991, p. 7B). This stresses the fairly general nature of the desire for good continuity that may

account for malleability if religion adapts to praxis, but may also account for inflexibility if reality is forced to appear as good continuity of heaven. Ultimately, the constancy/malleability issue seems to be a matter of relative flexibility of the base *vis-à-vis* the superstructure.

We find many assertions to the effect that religion is indeed of great importance. Weber (1930) took Protestantism as a prime mover of capitalism, although he made it clear that causality runs in both ways; Stewart (this volume) stresses the constancy, or inflexibility, of Islam that accounts for both its successes and its drawbacks; and the recent fundamentalist revolution in Iran seems to indicate that religion may indeed have strong implications for human action.⁴²

More cautiously, Tanner (this volume) argues that religion has been a strong secondary back-up rather than a primary motivation for economic change in the societies he studied. Further, if it is held that religions have unintended consequences, they must have consequences.

Some implications of religion are, however, straightforward. The clergy is able to make a living from offering religious services. In 1989, the West German members of the Roman Catholic church and the Lutheran church combined contributed 14 billion Deutschmarks of (voluntary) contributions, which amounts to 0.8 per cent of GNP.⁴³

It seems clear, too, that religious teachings can induce severe feelings of guilt, especially with regard to sexual matters, in adolescents and may influence aspects of their behaviour.

On balance, however, the issue seems to remain unsettled. It is rather unclear in what way religions play an active part in social life, and are not merely reflecting changes in economic and social conditions. If religions are only passively responding to these changes, we should be able to interpret religious institutions as optimal responses to prevailing conditions, and we should not expect to find inefficient religious practices; these should have been competed away.⁴⁴ So let us turn to the question of possible inefficiencies in religious organisation.

Inefficiencies in Religion: Holy Cows

It is true that specialists often insist on the functional value of various strange religious practices. In order to clear the ground, I shall clarify the nature of these arguments by means of an example. Harris (1978) writes rather comprehensively about the functionality (or lack of disfunctionality) of the 'holy cows' in India, and this provides a convenient starting point.

The Hindus in India venerate cows. There is a prohibition on slaughtering them, and a taboo on eating beef for the non-pariahs. At first glance, the custom seems inefficient, particularly in view of the many problems plaguing India. Harris stresses, however, the functional value of this custom by pointing out its benefits to society. First, cows produce dung which is the chief burning material in the Indian household. Second, oxen are extremely important for agriculture, and to have oxen, there must be cows that give birth to them. If cows are eaten in bad times, there will be no oxen later, and the 'survival into old age of a certain number of absolutely useless animals during good times is part of the price that must be paid for protecting useful animals against slaughter during bad times' (Harris, 1978, p. 16). Third, the cows feed to a large degree on garbage that is of no use to humans, but the meat of the dead cows provides cheap food for the pariahs, and many things can be produced from the hides. It may therefore be quite sensible for humans to share sparse food with holy cows; the benefits may outweigh the losses.

Let us assume for the moment that all this can be accepted (although I have my doubts), but look a little closer. Harris (1978, pp. 16, 23) writes: 'But I wonder how much is actually lost by the prohibition on slaughter and the taboo on beef . . . If cow love prevents farmers from killing cows that are economically useless, how is it that there are 30 per cent fewer cows than oxen? Since approximately as many female as male animals are born, something must be causing the death of more females than males. The solution to this puzzle is that while no Hindu farmer deliberately slaughters female calves or decrepit cows with a club or knife, he can and does get rid of them when they become truly useless from his point of view.

To “kill” unwanted calves, for example, a triangular wooden yoke is placed about their necks so that when they try to nurse they jab the cow’s udder and get kicked to death.’

There are, of course, cheaper ways of killing calves. Therefore, a rule stating that a calf may be killed if it is less than 2 weeks old ‘because it is not really a cow’ would be more efficient. Similarly, a rule stating that cows may not be slaughtered in bad times would be better than a general prohibition on slaughtering that keeps useless cows alive even in good times.

The Functionalist Fallacy

It is not necessary to enlarge on this and similar defences of strange religious practices. The general point seems to be that the usefulness of a rule is defended by arguing that the situation would be worse without such a rule. This is, however, an irrelevant benchmark for comparison if it is held that religious customs are efficient solutions to certain problems. The appropriate standard of comparison would be to compare one rule with other conceivable rules and to show that the one rule that we find in reality actually offers the best solution to the given problem under the given circumstances. It often seems easy to refute such a claim. If it is held, however, that a given rule is just one solution to a given problem, but not necessarily the best, this position comes down to the statement that whatever we find in reality can somehow survive—a thought that contributes next to nothing to our understanding.

Note that all these problems arise before anything has been said about the reasons that may be responsible for producing functional rules!

Religious Drift

There are, however, hidden assertions in Harris’s argument that, I think, highlight the ways in which religion may influence behaviour.

The first assertion is simply that religion actually influences behaviour. More exactly, it is held that religion is able to stabi-

lise a rule of conduct that restrains the individual's self-seeking behaviour to the benefit of all.

Second, religion cannot implement every rule. There must be a general prohibition on slaughtering cows at all times in order to prevent their slaughtering in bad times. By implication, a rule that would prohibit the slaughtering of cows only in bad times and is better according to the argument, could not be sustained by the Hindu creed, and the Hindu creed could presumably not easily be adapted without infringing on coherence.⁴⁵

Ultimately, such an argument comes down to saying that coherence requirements bias behaviour away from what would be otherwise preferable. We should find, therefore, that religions are favourable to certain developments, and less favourable to others. In an evolutionary context, religions should be seen as biasing variation; they induce, so to speak, genetic drift in cultural evolution. Any religion has a tendency, ultimately founded in our quest for sense, to push things in a certain direction, but it is a tendency only, which may be superseded by other influences.⁴⁶ Its ultimate importance will, therefore, depend on the relative strength of the other forces acting at any given moment of time.

Accentuation

Consider, however, another strange set of religious phenomena that seems to be inefficient, and indeed really harmful: the practices of male and female circumcision in Africa. These practices are very painful and, given the hygienic circumstances, very dangerous. This may be illustrated by the following accounts.

Barley (1986, pp. 49–50) describes male circumcision among the Dowayos: 'The operation is very severe, the penis being peeled for its entire length . . . If the operation is performed young, the penis sometimes assumes an almost spherical form that must be in part responsible for the very low birth rate of the Dowayos.'

Armstrong (1991, pp. 22–23) describes female circumcision: '... infibulation, the most drastic form known as 'pharaonic circumcision', involves the removal of all the external genitalia and the stitching up of the two sides of the vulva to leave only a tiny opening for the passage of urine and menstrual blood ... The immediate and long-term risks to health are enormous. Many little girls bleed to death because clumsy operators have cut into the pudendal artery or the dorsal artery of the clitoris ... Many circumcised women suffer infertility as a result of frequency pelvic infections or scar tissue blocking the fallopian tubes.'

Whatever the functions may be that are ascribed to such practices, it seems that there are better means to achieve the same end. The birth rate may be reduced by other practices, chastity could be enforced by religious and criminal law, and sexual pleasure is certainly not increased by this practice—neither for the mutilated nor for the un mutilated.⁴⁷

The practice is defended as an accentuation of the male–female difference: 'According to the Bambaras in Mali, each baby is born with rudimentary characteristics of the opposite sex that must be cut away to make the child wholly male or female'⁴⁸ We may thus say that religion establishes a certain meaning of manhood and of womanhood, perhaps as good continuity of current social practice, and uses circumcision to bring men and women in line with this view, thereby reconfirming the religious belief and the social practice. By interlinking various elements in a coherent way, all elements will be strengthened. This may help us to understand the function of seemingly inefficient practices, and also the forces that maintain them.⁴⁹ It should be clear, however, that these functions and these forces are not entirely reducible to extra-cultural impulses. They ultimately built on the quest for sense.

CONCLUSION

Many features of religious organisation seem to be in broad conformity with an economic interpretation, once a basic demand for religious activity is presupposed. Such a demand

has been related here to the quest for sense. It gives rise to religious organisation through market processes, broadly understood. The quest for sense, as well as a pervasive reliability problem, renders coherence of the teachings important, and this gives rise to particularities in organisation, e.g. that the churches try to restrict variability among their denominations to some extent. It makes it also possible to address rather specific phenomena of pricing, market structure and so forth.

We find, however, many particularities that are not easily compatible with an economic interpretation. The selling of indulgences is, from an economic point of view, to be preferred over other forms of penance, but the practice has been abolished in the Roman Catholic church, and we do not find it in many other religions. This is hard to explain unless it is posited that the introduction of money infringes on coherence. In a similar vein we find that many churches restrict their economic activities to a certain product range even if they have a competitive advantage beyond that range; they seem reluctant to turn themselves into commercial enterprises. Again, the coherence argument may be invoked here, but it seems unclear why coherence should be infringed; an answer in terms of coherence often poses more of a problem than a solution. Other instances of the same sort of problem are provided by 'holy cow'-type inefficiencies and dangerous rituals like male and female circumcision, and they suggest the same woolly answer.

These and other problems, that any economic interpretation of religion must face, suggest, however, that cognitions, interpretations, and the emotions going along with them, do have an independent impact on real processes. This impact may be very weak, a hardly noticeable 'religious drift', but it may ultimately turn out to be very powerful. It may be powerful for precisely the same reason that led Marshall (1949, p. 728) to insist that economic forces eventually undermine the strongest custom: 'And it is an almost universal rule that when the effects of a cause, though small at any one time, are constantly working in the same direction, their influence is much greater than at first sight appears possible.' We may add with Marshall (1949, p. 560) that influences working in this 'cumulative' way may 'therefore exert a deep and controlling influ-

ence over the history of the world.' I hasten to add that this is a theoretical possibility, more part of a problem than part of an answer.

ACKNOWLEDGEMENTS

I benefited much from the discussions of an earlier draft at the Fourth Workshop on Demography, Economics, and Organised Religion at Linacre College, Oxford, 14–15 June, 1991, and of the seminar of the accounting department at the University of Minnesota, Twin Cities. I am also obliged to Dennis Ahlburg, Sascha Ardishvili, Avner Ben-Ner, David Coleman, John Dickhaut, Laurence Iannacone, Eric Jones, Chandra Kanodia, Gisela Kubon-Gilke, Timur Kuran, Arijit Mukherji, Judy Rayburn, Gerlinde Schafer-Schlicht and James Scoville for valuable suggestions. The paper was written while I enjoyed the hospitality of the Industrial Relations Center at the University of Minnesota at the Twin Cities.

NOTES

- 1 More precisely, economists would not deny that inefficient institutions may exist and may be stable in some sense, but would not say that institutions are totally rigid; the rules are somewhat fuzzy, and there is continuous social experimentation going on, deliberately or by mistake, and Darwinian competition between institutional forms will ultimately supersede inefficient institutions by more efficient variants. Although this view has its critics even within economics, it seems to be the dominant approach.
- 2 Surveys of recent contributions to the economic analysis of religion may be found in Iannacone and Hull (1991); Schmidtchen and Mayer (1993).
- 3 I may point out here that I take my starting point from Asch's (1987) book on social psychology; see Schlicht (1990b) for a review.
- 4 Alchian (1950) offers a classic statement of this position. See Schlicht (1990d) for further references and discussion.
- 5 Woodward (1958, p. 21); see also Alchian (1950); Caves (1980).

- 6 Azzi and Ehrenberg (1975) introduce for instance the 'afterlife consumption motive'.
- 7 Iannacone (1990, p. 312) submits that the sidestepping of questions relating to the nature of religion is actually beneficial to the economic discourse, presumably because it avoids unfruitful debate. It also links religious phenomena to other phenomena, such as clubs and political parties (Iannacone, 1992, p. 272). This is an advantage. On the other hand, analyses conducted in this vein leave the impression of arbitrariness in the sense that they may apply to anything and nothing. Bruce (1993, p. 194) maintains that such an approach could be viable only in a thoroughly secular society.
- 8 Becker (1971) has introduced the term 'taste for discrimination' in the context of racial and sexual economic discrimination, which illustrates this use (or misuse) of notions in economics.
- 9 See Argyle and Beit-Hallahmi (1975, pp. 180–183) on cognitive need theories about religion, and on some of the evidence; Opitz (1975) for an introduction to Lévi-Strauss' thoughts; Zimbardo (1969) for a study of cognitive dissonance in various fields.
- 10 The theoretical basis for this view may be found in the work of the Gestalt psychologists Wertheimer (1935) and Köhler (1938). They developed the notion of 'requiredness' that refers to what is demanded by our interpretation of objective circumstances quite independently of our own wishes. The requiredness notion comprises many aspects of the dissonance reduction motive, but it goes far beyond cognitive need theory since it refers also to a fit between emotions and cognitions. In this sense, the position outlined above should not be seen as a cognitive need theory of religion.
- 11 The underlying psychological tendency is the tendency to *Prägnanz*, but I try to avoid the German term because it is so close to 'pregnancy'. I shall speak instead of a tendency to maximum clarity and the quest for sense, although this may carry wrong connotations as well. (The German '*Prägnanz*' refers to clarity, articulation, perspicuity, cogency, and terseness. It is a central notion in Gestalt psychology, but is hard to translate.)
- 12 de Mandeville (1924) has contrasted these interpretations delightfully.

- 13 Smith (1979, p. 43) calls this the *continuity* view, as opposed to the *discontinuity* view in the Christian tradition.
- 14 The argument presupposes implicitly that simplicity judgements are objective in character, since the series (1) can be seen as generated by any polynomial of sufficiently high degree and with appropriate coefficients. This is ruled out because it is 'too complicated', 'not unique' or 'does not make sense'. It seems to be true, however, that such judgements go far beyond merely subjective expressions. In the language of Gestalt psychology, the arithmetic schema is the most appropriate for (1) because it has the highest *Prägnanz*, see note 11 above.
- 15 Lévi-Strauss (1962) has illustrated this impressively. Platinga (1979) provides a modern theological discussion and makes a related point when stating '... that we must evaluate the rationality of the belief in God by examining its relation to *other* propositions' (p. 11), but he confines himself to stating that it is *not irrational* to believe in God, whereas the first argument goes further in maintaining that a belief in God (or something else) may enhance our understanding and may be considered positively rational in this sense. Iannacone and Hull (1991) propose that religion is 'a primitive science'. This view may be too uncritical of current science and tends to discount the complexities of religious thoughts in many cultures; it also tends to overlook the interlinkage between cognition and ethical judgements.
- 16 Piaget (1965, p. 33) insists that the obligatory character of rules, as opposed to a mere perception of regularity, results from social interaction. This is compatible with what I have said, but adds another element. It seems to me, however, that this social element, although often important, is not a *conditio sine qua non* for introducing obligation. If a picture hangs on a wall in an inclined position, this may induce strong feelings of obligation even if nobody has told us to hang pictures in a straight position, and similar very intense attempts to restore whatever is perceived as the proper order may be observed in young children.
- 17 Allen (1991a); Applebome (1991).
- 18 With regard to recent political events it may be added that a belief in God may ease certain political actions. If these actions are considered necessary, this will strengthen the belief. Adams (1979) explores the general idea of a moral defence for religious belief and Mackie (1977, pp. 227–232) provides a critical evaluation.

- 19 I don't want to joke here. Quite often the economists are right, and typically they are less extreme than the following examples may suggest (I am a reluctant believer). I simply want to render the position of the religious believers who see an apparition more respectable and understandable, and at the same time question the universal validity of the economists' approach in order to defend the continuity thesis mentioned in note 13 above.
- 20 The economic view of social phenomena underlying this type of analysis has been paradigmatically stated by Stigler and Becker (1977).
- 21 I owe this point to David Coleman.
- 22 Kahnemann *et al.* (1986) use the term 'framing' in the context of economics. Asch (1987, pp. 207–221, pp. 419–449) gives a more detailed account of the effect of context on meaning and illustrates this nicely by his famous 'warm-cold' and 'Jefferson-Lenin' experiments. That these phenomena are largely independent of previous experience was shown by Gottschaldt (1926). By the way, the 'Gestalt switch' illustrated in Figures 3.1 to 3.4 bears some resemblance to St Paul's experience: by changing the frame, things appear in a new light.
- 23 For more on schemata, see Anderson (1985, pp. 124–134).
- 24 Levelling and sharpening effects were first studied systematically by Wulf (1922) in the context of visual perception, but the phenomenon covers many psychological processes. Kelley's (1973, p. 113) 'discounting principle' (which is central for modern attribution theory) refers to phenomena of this type, for instance.

In Schlicht (1979, pp. 58–61) it is argued that the process of communication is another source of accentuation.
- 25 John Dickhaut pointed out to me that churches may actually not be inclined to accentuate a certain interpretation; rather they may offer a pattern of propositions, rituals and tales that can be interpreted in various ways. Each client may choose that interpretation, which satisfies his quest for sense, and the church is able, at the same time, to satisfy the desires of a large and quite heterogeneous membership. This would build on a quest for sense on the individual level, but use it more indirectly on the organisational level.

- 26 The term was introduced by Darby and Karni (1973); see Hull and Bold (1987). Credence goods that are non-rival or partially non-rival are known as 'trust goods'. The notion has been introduced by Burton Weisbrod (1988, 60). Ben-Ner and van Homissen (1991) provide an innovative analysis of the problems that trust goods create and what kind of market and organisational responses may be expected. Ben-Ner has pointed out to me that an explicit discussion of the credence good problematic can be found in Arrow (1963, pp. 949, 965).
- 27 An argument could be made to the effect that the conditions on Mars may become directly verifiable in future, but a similar claim could be made with regard to religious propositions as well.
- 28 The size of the market will of course limit specialisations; and thus this refers to congested areas.
- 29 Co-ordination may also take place through the market.
- 30 Ekelund *et al.* (1989, p. 325). Church banks would have to be run today as non-profit institutions in order not to infringe the propensity of the members to give voluntary contributions.
- 31 The term is used only provisionally here. The quest for sense is, after all, a quite active force, and not merely a rather passive constraint.

The restriction of the activity range may also be linked to the arguments for non-profits as advanced by Ben-Ner, and van Homissen (1991), see above. Note also that some churches, such as the Mormons and the Roman Catholic church, do engage in banking activities and many other commercial activities on a not insignificant scale.
- 32 The argument presupposes, however, a certain homogeneity in demand.
- 33 Ekelund *et al.* (1989, p. 314) argue that confessions may offer a possibility for the supplier (the church) to determine the state of demand and exploit this knowledge; see note 37 below.
- 34 This applies not only to religion, but quite broadly to many economic phenomena that otherwise would be incompatible with economic theory; with regard to labour economics see Schlicht (1990a), with regard to obedience, contracting and routinisation see Schlicht (1990d).

- 35 See Walzer (1983) for the idea that there are different social spheres.
- 36 The quotation is taken from Smith (1976, II, p. 312). The argument led Hume to propose that the state should provide an independent income for the clergy and thereby reduce religious zeal. Adam Smith himself proposed competition between many religious groups and held that 'provided these sects were sufficiently numerous, and each of them consequently too small to disturb the public tranquillity, the excessive zeal of each for its particular tenets could not well be productive of any hurtful effects.' (Smith 1976, II, p. 315). This argument seems to overlook the possibility of destructive competition that I have stressed here.

On Adam Smith's view of religious organization, see also Anderson (1988).
- 37 Ekelund *et al.* (1989, p. 314) argue that the rite of confession, in conjunction with the practice of selling indulgences, gave the clerics a unique method of determining a penitent's demand elasticity that could be exploited in a return-maximising way.
- 38 This is obviously very schematic but may serve to illustrate the point; see also Hull and Bold (1989, pp. 6–7).
- 39 This argument implicitly makes reference to psychological mechanisms, since belief in a religion excludes leaving the religion because it is too costly to adhere to it. If adherence is very costly, however, this may induce dissatisfaction and openness to information that runs contrary to the creed. In this way, too high costs may reduce demand.

Iannacone (1992, p. 281) has introduced the 'screening' idea into the economics of religion, albeit in a slightly different context. Weber (1949, p. 211) points out that American congregations screen their members carefully in many ways.
- 40 The argument that restrictions of other activities may increase religious participation is due to Iannacone (1992). The general argument bears some resemblance to Stiglitz' (1975) point that workers may freely choose a supervisor who constrains their behaviour.
- 41 My translation; the argument of this section is closely related to Olson's (1965, pp. 132–167) argument about 'by-product' and 'special interest' theories of pressure groups.

- 42 Communism, especially in the form of Stalinism, has left certainly its mark in history. Although it is not a religion in any transcendental sense, the 'historical laws', to which it appeals, are taken as absolute; in that, it has features of a religion.
- 43 In West Germany, church fees are collected by the tax authorities if a tax payer declares that they are a church member. The numbers are based on the Bundesamt für Statistik (1990, pp. 86, 87, 566). With regard to America, Weber (1947, p. 208) reports that the usual church contributions amounted to nearly 8% of average income! (This refers to a small town at the turn of the century.)
- 44 The explanation of institutions as optimal responses to prevailing conditions is central to the 'New Institutional Economics'. The approach is nicely illustrated by the works of North and Thomas (1973), Posner (1973, 1981) and Williamson (1975) and critically evaluated in Basu *et al.* (1987).
- 45 Similar arguments appear repeatedly in Harris' work. To take just one further example, he writes with regard to preference for boys and the neglect of girls among the Yanomamo 'Rather, the effective basis of Yanomamo women's nursery practices is their own interest in raising more boys than girls . . . A higher ratio of men to women means more protein per capita (because men are the hunters) and a slower rate of population growth. It also means more warfare, but for the Yanomamo, as for the Maring, warfare is the price paid for raising sons when they can't raise daughters' (Harris, 1978, p. 91).

The general point is related to the issue discussed in the controversy between act utilitarianism and rule utilitarianism, since the latter degenerates into the former if all behavioural descriptions pass as rules, and the argument may fail only if 'the rules are to be social realities', and this poses an additional constraint on them, closely akin to the 'meaning constraint' mentioned in above. (The quotation is from Mackie, 1977, p. 138, who offers a nice discussion of this problem.)
- 46 Jones (1988, pp. 87–107) argument about the malleability of religions refutes the thesis that religions pose absolute obstacles to growth, but seems consistent with the drift thesis; see also Jones (this volume).
- 47 Armstrong (1991, p. 24) argues that female circumcision is 'a physiological chastity belt', but see also Lightfoot-Klein (1989, pp. 23–26.)

- 48 Armstrong (1991, p. 24); see also Lightfoot-Klein (1991, p. 29). Barley (1986, p. 53) however, remarks that this widespread explanation is not without problems even if the accentuation argument is accepted: 'But one problem remains. In females, breasts are functional and necessary to feed the young. In males they are not. Why, therefore, do men not cut off their nipples as an intrusive female element rather than remove their foreskins? I know of no documented example anywhere in the world'. In other words, there are usually various ways to accentuate or make good continuations, and there are, perhaps, more efficient ways. So why this accentuation?
- 49 Basu *et al.* (1987, p. 18) speak in this context of 'cultural inter-linkages'.

REFERENCES

- Adams, R.M. (1979) Moral arguments for theistic belief. In Delaney, C.F. (ed.) *Rational and Religious Belief*. University of Notre Dame Press, Notre Dame and London, pp. 116–40.
- Alchian, A. (1950) Uncertainty, evolution, and economic theory. *The Journal of Political Economy*, 58, 211–21.
- Allen, M.S. (1991a) Faithful, curious come for image. *Star Tribune*, May 5, pages 1A, 6A, 8A, Minneapolis.
- Allen, M.S. (1991b) Feminist theology stresses women's past role. *Star Tribune*, May 26, 1B, 7B, Minneapolis.
- Anderson, G. (1988) Mr Smith and the preachers: the economics of religion in the 'Wealth of Nations'. *Journal of Political Economy*, 96, 1066–88.
- Anderson, J.R. (1985) *Cognitive Psychology and Its Implications*, 2nd edn. Freeman, New York.
- Applebome, P. (1991) Look up, see Jesus, or a lunch deal. *The New York Times*, 25 May.
- Argyle, M. and Beit-Hallahmi, B. (1975) *The Social Psychology of Religion*. Routledge and Kegan Paul, London and Boston.
- Armstrong, S. (1991) Female circumcision: fighting a cruel tradition. *New Scientist*, 2, 22–7.
- Arrow, K.J. (1963) Uncertainty and the welfare economics of medical care. *The American Economic Review*, 53(5), 941–73.
- Asch, S. (1987) *Social Psychology*. Oxford University Press, Oxford.
- Azzi, C. and Ehrenberg, R. (1975) Household allocation of time and church attendance. *Journal of Political Economy*, 83(1), 27–56.

- Barley, N. (1986) *A Plague of Caterpillars. A Return to the African Bush*. Penguin, London.
- Basu, K., Jones, E. and Schlicht, E. (1987) The growth and decay of custom: the role of the new institutional economics in economic history. *Explorations in Economic History*, 24, 1–21.
- Becker, G. (1971) *The Economics of Discrimination*. Chicago University Press, Chicago.
- Becker, G.S. and Murphy, K.M. (1988) A theory of rational addiction. *Journal of Political Economy*, 96(4), 765–800.
- Beit-Hallahmi, B. (1989) *Prolegomena to the Psychological Study of Religion*. Associated University Presses, London and Toronto.
- Beit-Hallahmi, B. and Royce, R.R. (1989) Religious affiliation, religiosity, and scientific eminence: a survey of Nobel prize winners 1901–1985. University of Haifa and George Washington University, Mimeo.
- Ben-Ner, A. and van Homissen, T. (1991) Nonprofit organizations in the mixed economy: a demand and supply analysis. *Annals of Public and Cooperative Economics*, 62(4), special issue on nonprofit organisations.
- Bruce, S. (1993) Religion and rational choice: a critique of economic explanations of religious behavior. *Sociology of Religion*, 54(2), 193–205.
- Bundesamt für Statistik (1990) *Statistisches Jahrbuch für die Bundesrepublik Deutschland*. Metzler-Poeschel, Stuttgart.
- Caves, R.E. (1980) Industrial organization, corporate strategy and structure. *Journal of Economic Literature*, 18(1), 64–92.
- Darby, M.R. and Karni, R. (1973) Free competition and the optimal amount of fraud. *Journal of Law and Economics*, 16, 67–88.
- Der Spiegel (1984) Bhagwan: Glaube um Mammon. *Der Spiegel*, 1985(6), 96–106.
- Dolin, R.A., Slesnick, R. and Byrd, J.T. (1989) Organizational structures of church and orthodoxy. Paper presented at the meetings of the Western Economics Association, Lake Tahoe, Nevada.
- Durkin, J.T. and Greeley, A.M. (1991) A model of religious choice under uncertainty. *Rationality and Society*, 3(2), 178–96.
- Einstein, A. (1982) *Ideas and Opinions*, based on *Mein Weltbild* and other sources, translated by Bergmann, S. Crown, New York.
- Ekelund, R.B. Jr., Hebert, R. and Tollison, R.D. (1989) An economic model of the medieval church: usury as a form of rent seeking. *Journal of Law, Economics, and Organization*, 5(2), 307–31.
- Gottschaldt, K. (1926) Über den Einfluß der Erfahrung auf die Wahrnehmung von Figuren. *Psychologische Forschung*, 8, 261–317.

- Harris, M. (1978) *Cows, Pigs, Wars, and Witches. The Riddles of Culture*. Vintage Books, New York.
- Hull, B.B. and Bold, F. (1989) Towards an economic theory of the church. *International Journal of Social Economics*, 16(7), 5–15.
- Iannacone, L.R. (1988) A formal model of church and sect. In Winship, C. and Rosen, S. (eds) *Organizations and institutions: sociological and economic approaches to the analysis of social structure*. *American Journal of Sociology*, 94, supplement, S241–S268.
- Iannacone, L.R. (1990) Religious practice: a human capital approach. *Journal for the Scientific Study of Religion*, 29(3), 297–314.
- Iannacone, L.R. (1991) The consequences of religious market structure. *Rationality and Society*, 3(2), 156–77.
- Iannacone, L.R. (1992) Sacrifice and stigma reducing free-riding in cults, communes, and other collectives. *Journal of Political Economy*, 100(2), 271–91.
- Iannacone, L.R. (1993) Heirs to the Protestant ethic? The economics of American fundamentalists. In Marty, M.E. and Appleby, R.S. (eds) *Fundamentalisms and the State: Remaking Politics, Militancy, and Economics*. Chicago University Press, Chicago, pp. 342–66.
- Iannacone, L.R. and Hull, B. (1991) Introduction to the Economics of Religion. *Bulletin of the Association of Christian Economists*, 18 (Fall), 7–13.
- Jones, E. (1988) *Growth Recurring. Economic Change in World History*. Clarendon, Oxford.
- Kahnemann, D., Knetsch, J.L. and Thaler, R.H. (1986) Fairness and the assumptions of economics. In Hogarth, R.M. and Reder, M.W. (eds) *Rational Choice. The Contrast between Economics and Psychology*. The University of Chicago Press, Chicago and London, pp. 101–16.
- Kelley, H.H. (1973) The process of causal attribution. *American Psychologist*, 28, 107–28.
- Köhler, W. (1938) *The Place of Value in a World of Facts*. Liveright, New York.
- Kuran, T. (1983) Behavioral norms in the Islamic doctrine of economics: a critique. *Journal of Economic Behavior and Organization*, 4, 353–79.
- Kuran, T. (1993) The economic impact of Islamic fundamentalism. In Marty, M. and Appleby, R.S. (eds) *Fundamentalisms and the State: Remaking Politics, Economics, and Militance*. The University of Chicago Press, Chicago, pp. 302–341.
- Leland, H.E. (1979) Quacks, lemons, and licensing: a theory of minimum quality standards. *Journal of Political Economy*, 87(6), 1328–46.

- Lévi-Strauss, C. (1962) *Le totémisme aujourd'hui*. Presses Universitaires de France, Paris.
- Lévi-Strauss, C. (1964–71) *Mythologiques*, Vols i–iv. Plon, Paris.
- Lévi-Strauss, C. (1967) Entretiens avec Claude Lévi-Strauss. *Les Lettres Françaises*, 1165(12).
- Lightfoot-Klein, H. (1989) *Prisoners of Ritual*. Haworth Press, New York–London.
- McKenzie, R.B. and Tullock, G. (1975) *The New World of Economics*. Richard D. Irwin, Homewood.
- Mackie, J.L. (1977) *Ethics. Inventing Right and Wrong*. Penguin, Harmondsworth.
- de Mandeville, B. (1924) *The Fable of the Bees: Or, Private Vices, Publick Benefits*, vol. 2. Clarendon Press, Oxford.
- Marshall, A. (1949) *Principles of Economics*, 8th edn. Macmillan, London.
- Medoff, M.H. and Skov, I.L. (1992) Religion and behavior: an empirical analysis. *Journal of Socio-Economics*, 21(2), 143–51.
- Nelson, R.R. and Winter, S.G. (1982) *An Evolutionary Theory of Economic Change*. Harvard University Press, Cambridge–London.
- North, D.C. and Thomas, P.R. (1973) *The Rise of the Western World*. Cambridge University Press, Cambridge.
- Olson, M. (1965) *The Logic of Collective Action*. Harvard University Press, Cambridge.
- Opitz, M. (1975) *Notwendige Beziehungen*. Suhrkamp, Frankfurt am Main.
- Piaget, J. (1965) *The Moral Judgement of the Child*, translated by M. Gabain. Free Press, New York.
- Platinga, A. (1979) Is belief in God rational. In Delaney C.F. (ed.) *Rationality and Religious Belief*. University of Notre Dame Press, Notre Dame and London, pp. 7–27.
- Polanyi, M. (1962) *Personal Knowledge: Towards a Post-Critical Philosophy*. Harper and Row, New York.
- Posner, R.A. (1973) *Economic Analysis of Law*, 2nd edn. Little, Brown, New York.
- Posner, R.A. (1981) *The Economics of Justice*. Harvard University Press, Cambridge, Massachusetts.
- Reynolds, V. and Tanner, R. (1983) *The Biology of Religion*. Longman, London–New York.
- Schlicht, E. (in preparation) *Rules in Economics*.
- Schlicht, E. (1979) The transition to labour management as a gestalt switch. *Gestalt Theory*, 1(1), 54–67.
- Schlicht, E. (1990a) A critique of a custom in labor economics. In

- König, H. (ed.) *Economics of Wage Determination*. Springer-Verlag, Heidelberg–New York–Tokyo, pp. 155–67.
- Schlicht, E. (1990b) Social psychology: a review article. *The Journal of Institutional and Theoretical Economics*, 146(2), 355–62.
- Schlicht, E. (1990c) Individuelles bestreben und kulturelles Gefüge. In Weise, P. (ed.) *Ökonomie und Gesellschaft, Jahrbuch 8: Individuelles Verhalten und kollektive Phänomene*. Campus, Frankfurt am Main.
- Schlicht, E. (1990d) Rationality, bounded or not, and institutional analysis. *Journal of Institutional and Theoretical Economics*, 146(4), 703–19.
- Schmidtchen, D. and Mayer, A. (1993) Ökonomische analyse der religion. In Bernd-Thomas, R. and Tietzel, M. (eds) *Ökonomische Verhaltenstheorie*. Vahlen, München, pp. 310–41.
- Smith, A. (1976) *The Wealth of Nations*, 1st edn. The University of Chicago Press, Chicago.
- Smith, J.E. (1979) Faith, belief and the problem of rationality in religion. In Delaney, C.F. (ed) *Rationality and Religious Belief*. University of Notre Dame Press, Notre Dame–London.
- Stigler, G. and Becker, G.S. (1977) De gustibus non est disputandum. *American Economic Review*, 67, 76–90.
- Stiglitz, J.E. (1975) Incentives, risk, and information, notes toward a theory of hierarchy. *Bell Journal of Economics*, 6, 552–97.
- Titmuss, R.M. (1971) *The Gift Relationship: From Human Blood to Social Policy*. Pantheon, New York.
- Walzer, M. (1983) *Spheres of Justice*. Basic Books, New York.
- Weber, M. (1930) *The Protestant Ethic and the Spirit of Capitalism*. Allen and Unwin, London.
- Weber, M. (1949) *Gesammelte Aufsätze zur Religionssoziologie*, Vol. 1, 4th edn. J.C.B. Mohr (Paul Siebeck), Tübingen.
- Wertheimer, M. (1935) Some problems in the theory of ethics. *Social Research*, 2, 353–67.
- Weisbrod, B.A. (1988) *The Nonprofit Economy*. Harvard University Press, Cambridge, Massachusetts.
- Williamson, O.E. (1975) *Markets and Hierarchies: Analysis and Antitrust Implications*. The Free Press, New York.
- Woodward, J. (1958) *Management and Technology*. HMSO, London.
- Wulf, F. (1922) Über die Veränderung von Vorstellungen (Gedächtnis und Gestalt). *Psychologische Forschung*, 333–7.
- Zimbardo, P. (1969) *The Cognitive Control of Motivation*. Scott, Foresman and Co., Glenview.