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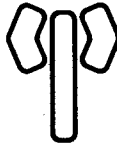
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GENERAL EDITOR: Dr. A. B. Robins



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THE RESURRECTION PROMISE

An Interpretation of the Easter Narratives

Charles Austin Perry

Belief in the resurrection of Jesus is essential to the Christian faith. But, while most Christians today profess belief in the Easter event, they often approach the subject with scepticism and naiveté, perplexed and unable to apply its significance to their own lives.

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The Reverend Charles Austin Perry is Provost of Washington Cathedral.

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Editorial

Out of the four papers which are published in this issue, three are the final forms of the contributions given to the Symposium in May 1986 on the topic 'The Nature and Nurture of Man'. The fourth contribution is an essay on Lord Shaftesbury, marking the centenary of his death in 1885. The papers thus cover quite a wide range from medicine through science to social reform, and readers of the book reviews will discover that there too there is a wide spread of material. It has always been the aim of the Victoria Institute to keep readers in touch, through this journal, with work in fields other than their own particular interest. We believe that there is a need for us all to 'keep-up' in an ever-changing world, a need which is becoming greater rather than less. I have underlined this because of discussions which have been taking place concerning the Victoria Institute and its journal. We believe that a wide spread of topics is welcomed by readers, provided always that it is erudite and well-documented. We should value readers' opinions on this matter, and in fact on anything appertaining to the Institute and Faith and Thought. Much of our present difficulty would be alleviated by an increase in readership, which was stressed by the Chairman last May (*Faith and Thought*, 1986, 112, 104). Thus, we appeal to all readers to advertise the Victoria Institute and this journal wherever they live, work and worship. Back numbers of Faith and Thought are available from the Secretary and Editor for publicity purposes. Please make us known; I am sure there is a readership awaiting discovery. Also, please write in with comments on any matter you think is apposite. There is an issue of the Newsletter with this journal, but not much of it represents readers' views. They appear to be a silent majority.

I would like to thank and pay tribute to our retiring Chairman, Gordon Barnes, for all he has done for the Institute over his years as Chairman. Especially would I like to thank him for the help he has given me since I became Editor. We welcome as his successor, Terence Mitchell, and wish him well.

Finally, an apology:- this time for an error in the last issue, where Archbishop Habgood's name was misspelt. If any other individual has suffered a similar fate, the Editor would like to know.

Our Contributors

Caroline Berry (Consultant Medical Geneticist, Guy's Hospital, London) *Genes and the Nature of Man*

David N. Livingstone (Lecturer in Geography, Queen's University, Belfast, Northern Ireland) *Science and Society: Reflections on the radical critique of Science*

David G. Myers (John Dirk Werkman, Professor of Psychology, Hope College, Michigan) *Yin and Yang in Psychological Research and Christian Belief*

Geoffrey Thomas (Member of the National Club) *Lord Shaftesbury*

Caroline Berry

Genes and the Nature of Man

Introduction

In 1953 Watson and Crick published their views on the structure of deoxyribonucleic acid (DNA), a discovery for which they were later awarded a Nobel prize. Since then the structure of genes and chromosomes has been steadily unravelled so that our underlying genetic make-up, instead of being secret, hidden and unapproachable, is being exposed to inquisitive scientific eyes.

Some of us feel inherently that such knowledge is best kept as a mysterious secret, known only to God, and that genes, like atoms, should be left undisturbed. Christians however have tended to see scientific discovery as a means of learning more of God and His creative power, and have endeavoured to apply new knowledge to the alleviation of human problems. Genesis 2:15 states that, before the Fall, God put man in the Garden of Eden 'to work it and take care of it'. Christians need to examine the implications of the advances in DNA technology and work out how Christian principles can be applied in this as in any other scientific field.

The basis of our genetic make-up

Watson and Crick proposed that the DNA molecule was constructed as a double helix with the two strands held together by the chemical bonds between complementary base pairs. There are four fundamental bases: adenine, thymine, guanine and cytosine, and the first always pairs with the second and guanine with cytosine. The double-stranded molecule replicates itself by separation of the two strands and by the use of each strand as a template on which to build a new complementary strand. The varying sequences of the bases code for different amino acids which can then be assembled to give the different proteins and enzymes of which living cells are made. We now know much more about this genetic code and that there are not only sequences which initiate amino acid synthesis but others, perhaps more important, which provide information on when coding should stop and start and which sequences should be deleted. In higher organisms there are long sequences that are apparently non-functional, perhaps evolutionary relics, but whose variation is now of

utmost importance in the application of molecular genetics to medical problems.

One of the most fascinating aspects of DNA biology is that the same sequence system operates throughout the living world, in both plant and animal kingdoms. Human DNA can be inserted into that of a bacterium so that the bacteria produce the human gene product in harvestable quantities. Such a technique is now used in the production of human growth hormone for the treatment of children unable to produce their own.

Some of the most simple of organisms, the viruses, have now been sequenced in their entirety and are known to have about 200,000 base pairs in all. Thus a print-out of the order in which the 200,000 bases appear will be unique for each viral type and, once known, gives the entire specificity of that particular virus. Only small sections of the human genome have as yet been sequenced. In all there are about 3.10^9 bases so that it will be an enormous task to determine their correct order throughout. Even the print-out would occupy half a million sheets of paper. However, if it did become possible to quote the order of the four primary bases giving the DNA code for any particular individual would this alter our concept of the person?

What is man?

It would theoretically be possible to determine the full genetic code for a particular person. If we have the genetic transcript of that person, do we have a person? What we do have is the plan or blueprint for that person. It would tell us his or her sex, blood group, eye, hair and skin colour, perhaps some clues as to facial features and stature, possibly even some personality factors. But is this a person? Is Man more than just his DNA sequence, more than just the sum of his genes? A child receives half its genetic input from the mother, half from the father. At conception we have the 'blue print' for that particular child. Are our children simply the means by which we ensure that our genes participate in the twenty-first century?

Although the genetic endowment provides the building blocks for the person we know that we are more complex than that. There are the nine months in the womb during which time the blue print is transcribed and built upon to produce an individual human baby, but if conditions are unsatisfactory the programme may be altered or spoiled so that the child is born with some imperfection, perhaps mild, perhaps disastrous. After birth a host of interacting factors influence the developing infant who gradually unfolds his or her individual characteristics, some entirely genetically pre-determined, others

learnt from those around, and yet others from a combination of the two. If we believe that individuals are simply the sum of their genes, then we are programmed and pre-determined slaves to our programmes and incapable of withstanding our inbuilt tendencies. Some sociobiological teaching¹ leads in this direction, but the essence of Christian understanding of Man is that people have freedom to make choices, even when, for some, the opportunity for choice is limited.

Man in the image of God

The story of the creation in Genesis 1 describes how God made the plants, the animals and finally man. We have seen that we share our DNA with the plant and animal kingdom. God made man a special creation, in His own image.

Gen. 1:27 states:

'So God created man in his own image, in the image of God he created him; male and female he created them.'

The image of God is not a DNA sequence; the specific DNA sequence is a vehicle for the Image of God in that particular person. God is spirit, so we would not expect His image to be simply a biological phenomenon. Human beings have a set of human genes, but that is not the essence of their humanity.

What then is the 'image of God' which makes humankind different from the animals? Philosophers and theologians still grapple with this concept. All that can be done here is to offer some of their words as they struggle to express the inexpressible.

Brunner 1939² 'Man's meaning and His intrinsic worth do not reside in himself, but in the One who stands 'over against' him . . . Man's distinctiveness is not based upon the power of his muscles or the acuteness of his sense organs, but upon the fact that he participates in the life of God . . .'

Anderson 1982³ 'What is unique and distinctive to human beings is not an absolute physical, or even psychological differentiation between humans and animal creatures. The distinction must be found elsewhere . . . Non-human creatures do not participate in the fellowship and relation with God designated by the Seventh Day . . . The human may be differentiated from all that is of the Sixth Day, even its

1. Wilson E.: *Sociobiology: The New Synthesis* Harvard Univ. Press, 1975.
 2. Brunner H. E.: *Man in Revolt* 1939.
 3. Anderson R. S.: *On Being Human* William B Eerdmans 23, 1982.

own creaturely nature, by the Creator's summons to participate in the Seventh Day.'

Blocher 1984⁴ 'God created Man as a sort of earthly son, who represents Him and responds to Him.'

Each draws out the importance of Man's unique relationship with God. They met and spoke together in the Garden before the Fall. After the Fall, Jesus stresses that eternal life comes from knowledge and belief in Himself (John 3:14–16).

At the Fall it was the relationship between God and Man that was broken. Man did not immediately die physically, his body remained apparently unchanged and his DNA continued as before. If the Fall had affected Man at the level of his genes then there would be the potential for correcting this effect by manipulation of the DNA—clearly an entirely heretical concept. After the Fall, man has to have guidelines to instruct him how to behave as a human, and in the Ten Commandments again the focus is on relationships, first with the Creator and secondly with fellow human beings.

The beginnings of 'personhood'

If Man is more than just a DNA sequence, when does the DNA blue-print, laid down at the moment of conception, become a person in the image of God, one for whom Christ died and one whom I must love as my brother?

Here is another conundrum over which theologians and philosophers continue to wrestle, particularly now that with the new developments in reproductive technology there are important practical implications to the answer.

Some (see below) believe that once the blue-print is specified at the point of conception then the building blocks are prescribed and the person is there. This is however incompatible with the ideas just put forward. At the other end of the spectrum is the newborn babe who cannot relate consciously to God but who most definitely relates to his or her parents who could be considered God's proxies. On the other hand God is able, by His immanence, to relate to the infant from the time of conception, if He so wishes. But is a two-way exchange important for the essence of relationship and 'image'?

Conception seems too early, while birth seems too late a time for this transition. Is it a single event or a gradual development? We are still searching and feeling our way. What can we learn from our increasing knowledge of early embryology?

4. Blocher H.: *In the Beginning* IVP, 89, 1984.

The developing embryo

The history of the developing embryo has been well studied from the biological aspect. After conception cell divisions occur, and after about 5 days the round ball of cells that has now developed starts to embed itself into the wall of the uterus. At this stage every cell has the capacity to form any organ and tissue, and in fact the majority of the cells will give rise to the 'support system' of the placenta and membranes. At this stage it can divide into two to give identical twins. Soon after a dark area appears (the primitive streak) which will give rise to the embryo itself, and gradually particular cell layers become committed to the formation of only one organ or tissue which now gradually start to develop. The appearance of the primitive streak occurs at around 14 days, the limit proposed for embryo experimentation by the Warnock committee (see below). During these early stages there appears to be a high rate of loss of the fertilised eggs, with perhaps only half successfully implanting; even after this many are rejected and miscarried. A high proportion of these have 'genetic blue-prints' which would give rise to seriously malformed individuals.

After implantation the mother becomes aware that she is pregnant and the embryo develops rapidly so that six weeks after it appears outwardly-human, with beating heart and moving limbs. The next weeks and months allow growth and maturation of, in particular, the nervous system, and increasing awareness from the mother of the life within.

Christian teaching

There is very little teaching in Scripture on the value of the individual embryo or fetus (Exodus 21:22 is a possible exception but even there the interpretation is not straightforward). The concept of 'the sanctity of life' is not taught as such. Man is instructed to exercise lordship (in the sense of responsible care) over God's creation (Genesis 1:28). In relation to his fellow human beings the emphasis is on the importance of each individual, and both old and New Testaments abound in stories illustrating the worth of each person, however lowly, in the eyes of God. We are also taught that there is a continuity between the person as we know him or her, and that person as seen by God in the womb. Jeremiah (Je. 1:5) and Isaiah's 'Servant' (Isaiah 49:5) are called from the womb to their respective tasks, as was Paul (Galatians 1:15). David describes in Psalm 139 how God saw and formed him during his embryonic development. These passages show us God's immanence, knowledge and care for us throughout our lives but do not

necessarily thereby imply that every embryo is precious in His sight. He would know the ones which would fail as well as those which continue to birth.

Christ was known and named from the time of His conception, and Luke's gospel (Ch. 1) gives us the beautiful story of John the Baptist leaping in his mother's womb with excitement when Mary arrived to visit his mother. By then Elizabeth was 6 months into her pregnancy and would be well aware of his movements. Today he would be considered a 'viable' baby if born prematurely. Christians disagree on the matter of when and how the biologically human embryo becomes made in the image of God, warranting the care and protection of our brother. Stott,⁵ Schaffer,⁶ Cameron⁷ and O'Donovan⁸ all believe conception is the crucial time. MacKay,⁹ Vere and the present author all believe the event to occur later. MacKay uses the analogy of a mixture of pre-existent gases bursting into flame when the crucial temperature is reached. Vere (personal communication) suggests the embryo can be likened to a preformed microchip vitalised by electrical charges which in themselves are unable to fulfil the role of the microchip. I prefer the idea of a continuity with steadily increasing value, and 'image-hood' as the relationship with the mother and others develops. All these are only ideas and suggestions. We need wisdom and patience to discover the mind of God.

Applications today

Already we are having to apply our beliefs as we view the advances in reproductive technology. Contraception allows us to choose which people will enter the world and separates the relational and procreational aspects of marriage. Difficult decisions with regard to abortion have been with us for years. Artificial insemination by donor again separates the relational and procreative aspects of marriage and allows gene donation without the responsibilities of fatherhood. Should the two be separated? 'Test-tube baby' (*in vitro* fertilisation) techniques make use of gametes (sperm and ova) from husband and wife but may well give rise to more fertilised eggs than are required. What should be done with the 'spares'?

5. Stott J. R. W.: *Issues Facing Christians Today* Ch. 15 Marshall Morgan & Stott, 1984.

6. Schaffer F. A., Koop C. E.: *Whatever Happened to the Human Race?* Marshall Morgan & Scott, 1980.

7. Cameron N. M. de S. & Sims P. F.: *Abortion: The Crisis in Morals & Medicine* IVP, 1986.

8. O'Donovan O.: *Begotten or Made?* Clarendon Press, 1984.

9. MacKay D. M.: *The Beginnings of Personal Life* In the Service of Medicine, 1984, 30, 2, 9-13.

They may be returned to the uterus where they may jeopardise a successful outcome by giving rise to multiple (5 or 6) very small babies. They may be discarded, as seems to occur so frequently in the natural world. They can be deep-frozen for future use by the parents, but with the potential for future problems over ownership and disposal. A final possibility is to use the spare embryos for research purposes. Again Christians are divided on the acceptability of this, depending on whether they view such early embryos as bearing God's image or not. The Warnock committee (a secular government-initiated body) supported embryo research provided that less than 14 days had elapsed since fertilisation.¹⁰

Such very early pre-embryos could be used for the development of improved contraceptive measures and *in vitro* techniques, and also to increase understanding on the origin of some congenital abnormalities such as chromosome disorders. Looking into the future, tests might be developed which could indicate whether or not a genetically-determined disease was present, so that only embryos without the disease could be returned to the mother's womb. There is no prospect of parents choosing for themselves blue-eyed, musically-gifted children, or of any other genetic 'tailoring', but clearly the whole field is one which could be developed for both good or ill. Christians need to be aware and involved. Should fear of misuse mean that all such work should be banned, or can appropriate guidelines and an ethical framework be drawn up?

These questions are not easily answered, and we need to explore not only our attitude to the embryo but also the basic tenets of marriage and parenthood. I hope the discussion outlined here shows that the matter of the status of the embryo is not a simple one. Scripture however does not leave us bereft. We have several consistent guidelines to use as fixed points in our discussions:

Three fundamental ones are:

- The importance of the Truth
- The value of the individual
- The value of marriage and the family

These are Christian principles on which we all agree. It is the working out of how to apply these to the specific problems we face today which calls for wisdom and tolerance when we find ourselves in disagreement. We have to maintain the tension between our awe and reverence for God's created order, and our obedience to His command to be good stewards of that creation.

10. Report of the Committee of Inquiry into Human Fertilization and Embryology. HMSO, London, 1984.

Stephen Lammers and Allen Verhey (Eds.)

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David N. Livingstone

Science and Society—Reflections on the Radical Critique of Science

It is nearly fifteen years since the Institute for Contemporary Arts here in London organized a series of lectures on a theme ominously parallel to ours today. Ours is 'The Nature and Nurture of Man'; theirs, 'The Limits of Human Nature'. During that series, the Marxist historian of science, Robert M. Young—to whose views we will presently return—voiced his concern that an Institute for Arts should turn deferentially to science for cultural wisdom and guidance about what constitutes 'human nature'. For Young, anything scientists might say about human nature would be at least as much a reflection of their own ideological preferences as about the 'nature of man'—whatever that might be. The reason is simply that, in his telling of the tale, the very models that biologists, psychologists and so on, use to explain human-kind are inescapably impregnated with social and political assumptions. No theory of human nature is ideologically immune.¹

Embedded in Young's diagnosis is the radical belief that the scientific enterprise and scientific knowledge are cultural products and political resources, and therefore nothing less than tools of ideological imperialism. So it is entirely appropriate that we should turn our attention to this so-called radical critique of science during this symposium if only because it is precisely in debates about human nature that some of the issues involved most clearly manifest themselves. Of course there are also contested philosophical and sociological issues at stake, and I will try to say something about these in due course. But in order to try to get a handle on the whole subject, I think it will be useful to begin with some reflections on an old chestnut: the story of evolution and religion. For many, familiarity with

Part of this paper is drawn from my forthcoming essay 'Farewell to Arms: Reflections on the Encounter between Science and Faith', in Mark A. Noll and David F. Wells (eds.) *Christian Faith and Practice in the Modern World* (Grand Rapids: Eerdmans).

1. Robert M. Young, 'The Human Limits of Nature', in Jonathan Benthall (ed.), *The Limits of Human Nature*, 235–274, (London: Allen Lane, 1973).

this topic has bred contempt. But it is precisely because it *is* such a well-worn theme that I want to begin here; for by looking at some of the new ways in which this familiar story is now being told, we will begin to understand the claims of the radical critics and to assess what they amount to. My purpose, at least in part, is to show how coherent the radical critique can be, especially against the background of the 'gut-feeling' that science is disinterested, neutral, and inherently objective.

As I see it, there are basically four ways in which we can tell the story. Traditional histories of the subject, Whiggish in spirit and triumphalist in character, resorted to the language of warfare and struggle in their depiction of religion's encounter with the new evolutionary natural history. This CONFLICT model rapidly caught on, and one book after another was issued which charted the history of the battle between science and Christianity—a battle whose outcome was increasingly being resolved in a predictable direction. Certainly there was a case to be made. Did not Charles Hodge not claim in his last book *What is Darwinism?* that Darwinism was—simply—atheism? For him there was a direct conflict between the claims of natural selection and those of natural theology. Again, when Alexander Winchell, a prominent American Wesleyan and geologist, issued his 400-page *Reconciliation of Science and Religion* in 1877, his self-appointed task evidently assumed some mutual antagonism. Besides, in our own day, the vocabulary of hostility is rarely far from the lips of creationists . . . and their evolutionary opponents.²

Still, as the documents of the scientific past have been ransacked, this 'conflict' reading has been dismantled with forensic precision by a squad of historical revisionists. In the years before 1850, for example, it has long been recognised that the vocabulary of hostility is just simply inappropriate. The new science of geology, to take one case, counted numerous clergymen among its practitioners. Besides, throughout most of the Victorian era, science was practised in a context derived from natural theology. Even for the Darwinian period, the conflict interpretation has for too long deflected attention from the numerous evangelicals who found it easy to make their peace with

2. Charles Hodge, *What is Darwinism?* (London and Edinburgh: T. Nelson and Sons, 1874); Alexander Winchell, *Reconciliation of Science and Religion* (New York: Harper and Brothers, 1877). A useful review and critique of the 'conflict' interpretation of science and religion is provided in Colin A. Russell, 'Some Approaches to the History of Science', in Open University, *Science and Belief: from Copernicus to Darwin*, Block 1, Unit 1, *The 'Conflict Thesis' and Cosmology* (Milton Keynes: The Open University Press, 1974).

evolution. I have charted this unfamiliar territory elsewhere. And—perhaps most interesting of all—the Wilberforce-Huxley melodrama so colourfully portrayed on BBC television now appears more the product of later historical recreation than a description of what really happened.³

By-and-large then, the conflict interpretation has done little to advance our understanding of the encounter between evolutionary theory and theological belief. So some historians of science have recast this model in a more restricted vein. Here, the conflict is transmuted into a COMPETITION, and is applied not so much to science and faith *per se*, but to scientists and theologians. In other words, there was a Victorian competition between the new scientific professionals and the older ecclesiastical hierarchy for cultural power in society. The new thrusting scientific elite wanted to wrest social authority and initiative from the old-fashioned clerical sage. Science, therefore, became a tool in the hands of the new middle-class professionals to serve their own social interests. So when Victorian men and women fell on hard times whether because of the threat to harvest, cattle plague, or typhoid in the royal household, it was questionable whether they should heed the clergy's call to prayer, or turn to the new agricultural, veterinary and medical experts. If the choice was initially hazy, the problem was rapidly resolved in a predictable direction. The manifest success of sanitary engineering, preventive medicine, and surgeon's knife, heralded an increasing privatization of religious observance. And with that there was an accompanying transfer of societal kudos into the hands of an all-too-willing scientific fraternity. As Frank Miller concludes: 'If the movement from religion to science in western culture represented, as some would contend, the exchange of one form of faith for another, it also meant the transfer of cultural and intellectual leadership and prestige from the exponents of one faith to those of another . . . It was a clash between established and emerging intellectual and social elites for popular cultural pre-eminence in a modern industrial society'. Another historian of the Victorian period concurs, adding that the 'conflict between science and theology' sprang at least in part from 'the effort by scientists to improve the position of science. They

3. David N. Livingstone, *Darwin's Forgotten Defenders: The Encounter between Evangelical Theology and Evolutionary Thought* (Grand Rapids and Edinburgh: Eerdmans and Scottish Academic Press, 1987). On the Wilberforce-Huxley encounter see J. R. Lucas 'Wilberforce and Huxley: A Legendary Encounter', *Historical Journal*, (1979), 22, 313-330; Sheridan Gilley and Ann Loades, 'Thomas Henry Huxley: The War between Science and Religion', *Journal of Religion*, (1981) 61, 285-308.

wanted nothing less than to move science from the periphery to the centre of English life'.⁴

The historical analysis has direct bearings on the whole question of the radical critique of science, for it emphasizes that science serves human interests. This is a point to which we will return. In the meantime it is just important to note that the competition model takes seriously the immediate links between science and society, and it does certainly throw light on some infernally stubborn problems in the history of evolution-religion saga. It helps explain, for example, the rise of the Wilberforce-versus-Huxley legend. The later passion to purge the British Association of the stain of clerical dilettantism would evidently favour a reconstruction of that debate with the clergyman as the vaudeville villain, and the scientist as the archangel of the enlightenment and the disinterested pursuit of knowledge, let the chips fall where they may. More generally, the competitive reading clarifies much of the otherwise ambiguous rhetoric on the lips of certain scientific publicists. Huxley's craving for a molecular teleology, Galton's hankering after a 'scientific priesthood', and Geddes's substitution of Darwin for Paley, invite such exegesis. After all, as Ruth Barton has recently reminded us, Huxley's 'chief aim' was 'the secularization of society through the cultural domination of science'.⁵ Indeed, if intellectual authority in modern society has not passed to the professional scientist, why is it that cries of 'pseudo-science' are so frequently on the lips of creationists and evolutionists alike? And why is it that religious believers and unbelievers alike continually resort to science for ideological self-justification? As Eileen Barker pithily puts it in the conclusion to her sociological wanderings through a variety of scientific gatherings:

The Biblical literalist, the Evangelical revivalist, the political visionary and even the slightly perturbed old priesthood of the established theologies turn to the new priesthood [of science] for reassurances that their beliefs have not been left behind in the wake of the revolutionary revelations of science. The new priesthood has not been found wanting. Sometimes with formulae, sometimes with rhetoric, but always with science, the reassurance is dispensed.⁶

4. Frank Miller Turner, 'Rainfall, Plagues, and the Prince of Wales: A Chapter in the Conflict of Science and Religion', *Journal of British Studies* (1974), 13, 65; T. W. Heyck, *The Transformation of Intellectual Life in Victorian England* 81-83 (London: Croom Helm, 1982). See also Frank Miller Turner, 'The Victorian Conflict between Science and Religion: A Professional Dimension', *Isis* (1978), 69, 356-76.

5. Ruth Barton, 'Evolution: The Whitworth Gun in Huxley's War for the Liberation of Science from Theology', in D. Oldroyd and I. Langham (eds.), *The Wider Domain of Evolutionary Thought*, 262, (Dordrecht: D. Reidel, 1983).

6. Eileen Barker, 'Thus Spake the Scientist. A Comparative Account of the New

Plainly this approach has much to commend it; but it surely cannot accommodate all aspects of the question. Religious knowledge, to be sure, cannot be cut loose from religious 'knowers', nor scientific theory from scientific practice. Both *are* rooted in society, and it is well to remember that they can serve particular group interests. What this portrait does not do, so far at any rate, is to tell us much about the *nature* of religious or scientific understanding. A separate case has had to be mounted by those claiming that social interests *necessarily* and invariably condition the contents of scientific knowledge. Whatever the legacy of history may have been, the philosophical adequacy of a scientific faith, as opposed to a religious one, remains thoroughly contested. Then too, by focussing on the *social* struggles of the theologians and scientists for cultural power, the competition model solidly ties both enterprises to the moorings of popular culture. Clearly this has advantages in explaining the flowering of Victorian naturalism. (Though we need to remember that as a source of religious scepticism, science probably did less harm than the ethical revolt against conventional morality, the explosion of biblical criticism popularized in *Essays and Reviews*, working-class defection from institutional religion, and inter-denominational feuding). But the substitution of popular confidence in hygiene for the faith of vernacular superstition leaves quite untouched the relation between scientific naturalism and Christian theism. My own hunch is that Victorian folk-religion bears about as much relation to biblical Christianity, as the theology of the average Jesus-freak does to modern biblical exegesis. There were many who simply saw no conflict between a religious and a scientific account of the world order. So doughty a defender of orthodoxy as B. B. Warfield, for example, told his readers that 'teleology is in no way inconsistent with . . . a complete system of natural causation. Every teleological system implies a complete 'causo-mechanical' explanation as its instrument'.⁷

Predating this re-reading of the record is an alternative interpretation which emphasizes the CO-OPERATION science has received from Christianity. For earlier periods the case has been made by Hooykaas, Torrance and many others. This audience does not need to be reminded of the details of their argument. For the Darwinian period, Jim Moore's monumental survey of Protestant responses to

Priesthood and its Organisational Bases', *Annual Review of the Social Science of Religion* (1979), 3, 99.

7. B. B. Warfield, Review of *Darwinism Today* by Vernon L. Kellogg, *Princeton Theological Review* (1908), 6, 649. I have examined the attitude of the Princeton theologians to evolution in 'The Idea of Design: The Vicissitudes of a Key Concept in the Princeton Response to Darwin', *Scottish Journal of Theology* (1984), 37, 329-57.

Darwin suggests, as a broad generalization, that it was among orthodox believers, who retained a firm hold on Calvin's doctrine of Providence, that least religious nervousness was experienced.⁸ Indeed I myself have found a vibrant tradition of evangelical evolutionists which has been ignored or suppressed by certain propagandists.

This general scheme of interpretation is plainly attractive. For one thing it accommodates both intellectual and social dimensions of the subject. It takes seriously both the input of theological ideas and the human networks in which scientific practice was rooted. In the United States, for example, it was the close relationships between three evangelicals—Asa Gray, James Dana, and George Frederick Wright—that helped keep Darwin's theory alive in the New World. Still, there *are* problems with this scheme. If Christianity was so central to the growth of science, how can we explain its secularizing ethos, its reductionist and materialist inclinations, its undercutting of the natural theology canopy? And of course there is the ethical challenge forthcoming from those frankly critical of scientific rationality itself and therefore of its Judaeo-Christian underpinnings. In this latter case, the co-operative model is a knife that cuts both ways.

Perhaps the most coherent effort to transcend these readings is the argument for ideological CONTINUITY most forcefully articulated by Bob Young, to whom I have already referred. In a number of influential articles—now mostly gathered together as *Darwin's Metaphor: Nature's Place in Victorian Culture*⁹—Young advanced the proposal that 'conflict' readings of the great Victorian debate on 'Man's Place in Nature' have only obscured the fact that both religion and science are socially sanctioned ideologies. In developing his critique Young has made use of the old idea of theodicy, a doctrinal move essentially designed to address the problem of evil. A theodicy, of course, was a means of justifying the ways of God to humanity. Despite apparent indications to the contrary, divine purposes were justified by showing how they ultimately benefited the human race. What Young does in this case is to argue that the theodicy grounded in natural theology (justifying, as I have said, the ways of God to men and women) has been replaced by a scientific theodicy (justifying the ways of nature to society). In both cases the existing social order is

8. James R. Moore, *The Post-Darwinian Controversies. A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America 1870-1900* (Cambridge: Cambridge University Press, 1979).

9. Published in 1985 by the Cambridge University Press.

10. R. J. Berry, 'Happy is the Man that Findeth Wisdom', *Biological Journal of the Linnean Society* (1982), 17, 1-18.

ratified and therefore science, no less than religion, supports the *status quo* by advocating principles of adjustment and conformity.

Young's historical programme is, predictably, Marxist through-and-through. Social conditions and political beliefs are, to use his word, 'constitutive' of scientific theorizing. And of course under a capitalist regime, repressive and manipulative policies produce repressive and manipulative science. Now, it would doubtless be easy to dismiss Young's diagnosis as a piece of historicist rhetoric, were it not for the fact that he really has compiled an imaginative travelogue which guides us very well through the maze of the Victorian intellectual landscape. The much-vaunted talk of a 'Church Scientific', lay sermons, a Scientific Priesthood and what-not, do begin to make sense in the context of a transition to a new theodicy. So too does the widespread belief that social salvation could be achieved through the practice of eugenics. Indeed the ostentatious burial of Charles Darwin in Westminster Abbey only a few feet from the bones of Sir Isaac Newton, with the choir singing 'Happy is the Man Who Finds Wisdom',¹⁰ seems to symbolize the very ideological continuity of which Young speaks. Jim Moore believes it was the 'trojan horse of naturalism entering the fortress of the church'.¹¹

Let me briefly mention one particularly dramatic instance of this kind of conceptual manoeuvre, where the pressing of evolution into the service of ideology is all too clearly paraded. Throughout the nineteenth century, numerous individuals were intoxicated with the hope of isolating some scientific measure of racial differences. A whole subfield of anthropology—anthropometry or somatometry—came into being to provide standard ways of measuring living bodies and dead bones. So far so good. However, many practitioners of this new art believed that by it the superiority and inferiority of different races could be established. Scientific racism, as this view could be styled, drew on disciplines as diverse as evolutionary biology, physical anthropology, environmentalist human geography, and Teutonic theories of history.¹² These sciences easily furnished ammunition for a battery of social policies ranging from eugenics to immigration restriction. Here, if I may again use Young's words, the 'constitutive role of evaluative concepts' in science is all too clear. The significance of this example should not be missed. It would be all too

11. James R. Moore, '1859 and all that: Remaking the Story of Evolution-and-Religion', in Roger G. Chapman and Cleveland T. Duval (eds.), *Charles Darwin, 1809-1882: A Centennial Commemorative*, 194, (Wellington, N.Z.: Nova Pacifica, 1982).

12. Some of the strategies are outlined in David N. Livingstone, 'Science and Society: Nathaniel S. Shaler and Racial Ideology', *Transactions of the Institute of British Geographers*, N.S., (1984), 9, 18-210.

easy to say that these writers were yielding up their science to their politics: not so. So far as I can judge, they really believed they were doing 'objective' science. Indeed Christians in science were not immune from these machinations. Consider the judgements of two prominent evangelical scientists in the America of last century. First Arnold Guyot—Professor of Physical Geography and Geology at Princeton and guest lecturer to the Seminary students for many years. He believed the Creator had 'placed the cradle of mankind in the midst of the continents of the North . . . and not at the centre of the tropical regions, whose balmy, but enervating and treacherous, atmosphere would perhaps have lulled him to sleep, the sleep of death, in his very cradle.' Here the Creator is invoked to justify the 'white's' place in nature. Then consider the only-slightly later words of Alexander Winchell, the Methodist and geologist I have already mentioned in passing. 'Nature,' he writes, 'conscious of the 'irremediable estrangement' of the black races, has condemned them to inhospitable and inaccessible regions of the globe.' In the declarations of these two writers, a clear shift can be observed from the Creator to Nature as the legitimization of white superiority.¹³

There are, certainly, technical objections to Young's portrait. For example, it is now clear that the earlier natural theology tradition was nowhere-nearly as coherent as he implies. And there are always glorious exceptions to his rule. In the case of racism, the names of Warfield and Asa Gray readily come to mind as evangelicals who used science to oppose racism. But I do not want to dwell on these infelicities for the moment, because it is with Young's retelling of the evolution and religion story, that we come face to face with what a radical history of science might look like. Some may already be thinking: It's all very well to pull out these one or two examples of science being misused by partisans; we can really rather easily spot such abuses and scotch them. Personally I am not so sure, though I will presently try to outline some of the ways in which a Christian might respond to the scenario. But for now I want to turn to the philosophical and sociological input to the debate, because here we will encounter arguments that *all* science is socially impregnated, and that it simply cannot provide us with objective knowledge about the world. This, truly, is a radical claim.

13. Arnold Guyot, *The Earth and Man. Lectures on Comparative Physical Geography in its Relation to the History of Mankind*, 251, (New York: Scribner's, 1879, orig. 1849), Alexander Winchell, *Preadamites; or a Demonstration of the Existence of Men before Adam; together with a Study of their condition, Antiquity, Racial Affinities, and Progressive Dispersion Over the Earth*, 157 (Chicago: S. C. Griggs, 1880). On the 'Preadamite' theme see David N. Livingstone, 'Preadamites: the History of an Idea from Heresy to Orthodoxy', *Scottish Journal of Theology*, (1986) 39, in press.

The input from philosophy and sociology of science

So far I have outlined four ways in which the history of science and religion can be told, and have tried to show that good cases can be made for insisting that scientific knowledge is a cultural product and a political resource. As a matter of historical fact, I believe this to be so. But what about the further argument that science is all ideology, or at least that it is entirely relative to particular groups and not a depiction of the way the world really is?

In the present context it is not necessary to spend time reflecting on the errors of logical positivism and its critique by philosophers like Popper. That story has been told often enough. Instead I want to begin with Kuhn, because it is with him that the relativist case begins to have real bite. In Kuhn's idea of 'paradigms', historians, philosophers and sociologists of science found a new toy to happily engage their imaginations.¹⁴ By 'paradigm' Kuhn roughly meant—and he was confessedly ambiguous, at least initially—a tradition with historical exemplars. In other words, a mature science is conducted within a social and conceptual framework that sets the standard for relevant research, specifies the puzzle-solving objectives, coordinates the disparate work of its member scientists, and initiates its students into the ways of the tradition. Now, Kuhn went on, scientific revolutions occur when the accepted paradigm is replaced by another which gives rise to a completely new programme. The changeover from Newtonian mechanics to Einsteinian physics is a classic case. It is like a Gestalt-switch—suddenly seeing an old picture in a new way. The new model may accommodate more information; it may be more elegant; it may be more psychologically satisfying; it may be more theoretically fertile; it may have greater explanatory scope. But there are no *independent* rational criteria for deciding between them. This is because what *counts* as a rational explanation is determined by the paradigm itself. Indeed the problems to be investigated by the scientists working in the new paradigm cannot be expressed in the language of the old. The puzzles that geologists who accept the theory of Plate Tectonics try to solve would simply not make sense to the geologists of the nineteenth century.

Plainly Kuhn had introduced a thoroughly relativist note into the philosophy of science. Since the paradigm involves a set of criteria for determining what problems are worth solving and how the solutions are to be recognized, there will not be any mutually agreed basis for deciding which competing paradigm is best. The results of science

14. T. S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1970).

are therefore *relative* to the scientific tradition within which research is carried out, and are not straight-forward descriptions of the way the world really is.

The relativist temper of Kuhn's interpretation, moreover, has been pushed to the very limits by the anarchist philosopher Paul Feyerabend. To him, science is a completely free-wheeling business. Without the availability of paradigm-free logic—implicit in Kuhn's story—literally anything goes. This, of course, means that everything goes. Indeed Feyerabend rejects the notion that science is superior to any other form of knowledge whether poetry or drama, or more fringe pursuits like astrology or voodoo.¹⁵

Following the broad contours of this critique, Richard Rorty maintains that we should give up the notion that science is travelling towards an end called 'correspondence with reality', that science can, to use his own metaphor, 'mirror nature'. To Rorty, the scientific tradition has simply been the hunt for a vocabulary that helps us to predict the world better, and to control it. Some vocabularies work better for this purpose than others: Galileo used terminology that helped, Aristotle didn't. But to Rorty, these languages are emphatically *not* 'Nature's own vocabulary'—that is, the way Nature would describe itself to us if it could. As he puts it: 'scientific breakthroughs are not so much a matter of deciding which of various alternative hypotheses are true, but of finding the right jargon in which to frame hypotheses in the first place.' (For students of human nature, sometimes a behaviourist language serves the purpose; on other occasions hermeneutic talk is better.) Thus to him scientific method means having a good list of topics or headings—a good filing system. Scientific rationality means obeying the conventions of your discipline, not fudging the data too much, and listening to your colleagues. It is what he calls 'epistemic good manners'. It is NOT, let me repeat, Nature's Own Language. That is just simply not a useful concept.¹⁶

What has provided even more ammunition for the relativist armoury has been the post-Kuhnian alliance between sociology and the history of science. This critique has emerged from several sources. There is, for example, the work of those like Young who tie science and ideology tightly together. We have already scrutinized this effort. And then there is the impressive writing from the pen of Jurgen Habermas who argues that *all* human knowledge is value-

15. Paul K. Feyerabend, *Against Method: Outline of an Anarchistic Theory of Knowledge* (London: New Left Books, 1975).

16. Richard Rorty, *Consequences of Pragmatism. (Essays: 1972–1980)* (Sussex: Harvester Press, 1982) esp. essay on 'Method, Social Science and Social Hope', Richard Rorty, *Philosophy and the Mirror of Nature* 191–210 (London: Blackwell, 1980).

oriented in the sense that its very status as knowledge derives from its orientation towards basic human interests. But here I want to focus briefly on the work of the so-called Edinburgh group who advocate what one of its spokesmen christened the 'strong programme' in the sociology of knowledge. Bloor, Barnes, Shapin and Mackenzie are chief among the practitioners of this new art, and they have increasingly made out the case for scientific knowledge as a relativist cultural product. Science, in other words, is merely the expression of social interests because social relationships insinuate their way into scientific practice at EVERY level. One or two examples will illustrate the approach.¹⁷

Consider first the professional vested interests of the community of scientists. Typically, scientists acquire technical skills during the course of their training. These may include survey techniques, mathematical proficiency, laboratory expertise, cartographic skills. In each case, they represent a set of vested interests that are therefore valued and defended within the scientific fraternity. Now, the argument goes, these interests directly condition the content of scientific knowledge. The dispute among twentieth century botanists over the correct classification of plants is illustrative. One group grew up on a diet of morphological studies and were taught that species were to be delineated on the basis of their structure; a second laboratory-trained set claimed that experimental work, often of a biochemical sort, was of crucial importance. The result? Two different taxonomic schemes, because each group construed botanical reality differently. The argument here is that the content of scientific knowledge is a direct reflection of the craft competences of the investigators rather than a portrait of reality.

Then there is the impact of the wider society on scientific knowledge. Take, for example, Darwin's use of Malthus's social theorizing, and his application of the lessons he had learned from his fellow pigeon-breeders at the Philopisteron. His theory of natural selection was essentially a metaphorical application of the idea of nature as a breeder, as was his belief in struggle as the engine power behind evolutionary change. On a different front Paul Forman has made out a strong case for seeing the acceptance of acausal modes of scientific explanation in Weimar Germany as being conditioned, at

17. For samples of their work see B. Barnes, *Scientific Knowledge and Sociological Theory* (London: Routledge and Kegan Paul, 1974); B. Barnes, *Interests and the Growth of Knowledge* (London: Routledge and Kegan Paul, 1977); David Bloor, *Knowledge and Social Imagery* (London: Routledge and Kegan Paul, 1977); Barry Barnes and Steven Shapin (eds.), *Natural Order: Historical Studies of Scientific Culture* (Beverly Hills: Sage, 1979).

least in part, by the anti-determinist historical views of Oswald Spengler. And finally the role of religion, particularly in Puritan England, in the advancement of seventeenth-century science further attests to the impact of cultural forces on scientific practice. The essential argument is that scientific knowledge is as much the result of social relationships between researchers, of the over-determining role theory, of cultural and political preferences, even of who controls publishing outlets, as of the natural phenomena.¹⁸

Responses to the Critique

There are, it seems to me, two separate, though related, issues raised by the radical critique of science which need to be faced. There is, plainly, a historical claim—a contingent claim if you will—that science, as a matter of fact, has been conditioned by various 'non-scientific' forces. And there is a philosophical claim—an 'in principle' argument—that science cannot provide truthful accounts of natural phenomena which realistically correspond to the way things are. Let me deal with this second claim first, because its implied epistemological relativism (no doubt as applicable to historical knowledge as much as to scientific) is something about which Christians have been, wisely I think, suspicious.

Initially I must remind you that I am not a professional philosopher of science. My work falls squarely within the history of science, particularly the behavioural and earth sciences. So I am merely suggesting one or two of the escape routes from this radical relativism, to which I feel instinctively attracted.

I feel sure that many may well have the feeling that the pragmatic success of science in so many spheres is ample testimony to the truth of its theories. Surely the fact that aeroplanes can fly is evidence that we have found out something about aerodynamics? Does landing men on the moon not prove that our lunar theories are true? Unfortunately this is not the case. All sorts of pragmatically successful conceptions about astronomical phenomena—for navigation for example—were held by people who believed that the earth was static and at the centre of the universe, and about physics by those who believed that all space was filled by an invisible ether. The instrumental success of a theory is no guarantee that it is a realistic depiction of the world, so other arguments have had to be mounted. I shall briefly mention three.

Part and parcel of Kuhn's model of scientific change was his

18. See review by Steven Shapin, 'History of Science and its sociological reconstructions' *History of Science* (1982), 20, 157–211.

rejection of any sufficient rational grounds for the shift from one paradigm to another. This has been challenged by Dudley Shapere.¹⁹ Too much, he says, has been made of the *discontinuities* between succeeding paradigms or research programmes. Even allowing that what counts as a legitimate theory, problem, or solution, may change radically over time, Shapere believes that there still is 'often a chain of developments connecting the two different sets of criteria, a chain through which a 'rational evolution' can be traced between the two'. What is needed here are case studies in the history of science to determine just what really happens during the course of a scientific 'revolution'. Certainly what passes for legitimate, even observational, evidence will change with time; however—and this is crucial—there are always compelling REASONS for the shift. Changes even in the standard of rationality—of what constitutes reasonableness in other words—can itself be a rational process.

A second strand of anti-relativist argument has its roots in the notion that scientific models are ultimately sophisticated metaphors. The argument runs like this. In their endeavour to come to grips with some aspect of reality hitherto unexplained, scientists look around for some broadly similar process that they do understand and interpret the problem under investigation in the light of this information. They construct a picture to represent what they understand to be the nature of the processes at work. Pictures of this sort are usually called models. But they are, for all that, analogies or metaphors—looking at something *as if* it were something else. The metaphor, in turn, becomes a kind of lens through which the subject is viewed; some aspects are ignored or suppressed while others are emphasised or organised in specific ways. Thus scientists tell us that sub-atomic particles behave *as if* they are a miniature system and that our brains function like computers.

On the face of it, it might seem, as indeed Mary Hesse develops the argument, that there are no direct corresponding links between our metaphorical talk about the world and the world itself. Shifting from one metaphor to another would seem to be just as radical a break as a paradigm shift. But for Ernan McMullin the metaphor notion can be deployed as a realist strategy. For him, spelling out the implications of a metaphor—suggesting new areas of investigation and predicting the discovery of novel facts—is a signal to its truth content. Plate tectonics is a notable case. According to this theory, the continents as well as the ocean floors are carried on vast plates which move on the

19. Dudley Shapere, 'The Character of Scientific Change', in Thomas Nickles (ed.) *Scientific Discovery, Logic and Rationality*, 61–116, (Dordrecht: D. Reidel, 1980).

outer shell of the globe. Invoking the idea of 'plates' is, of course, a metaphorical move from the outset. Moreover this metaphor can be extended by asking, 'What happens when plates collide?'. 'One is carried down under (subduction)' McMullin replies; 'the other may be upthrust to form a mountain ridge'. Now, McMullin goes on, here is a clue to the realist stake in metaphor. What best explains the predictive success of the metaphor 'is the supposition that the model approximates sufficiently well the structures of the world . . . for the scientist to take the model's metaphoric extensions seriously. It is because there is something like a floating plate under our feet that it is proper to ask: what happens when plates collide, and what mechanisms would suffice to keep them in motion?' In other words, good metaphors have specific entailments and extensions that make them susceptible to testing procedures.²⁰

Finally, the idea of the historical *resilience* of theories suggests another realist strategy. To pass muster as a claim to knowledge, a theory must display a certain resilience with the passing of time, a sort of survival quality in the face of changing scientific fashions. 'What counts, perhaps, most of all in favour of a theory is not just its success in prediction, but what might be called its *resilience*, its ability to meet anomaly in a creative and fruitful way'. Perhaps the theory of evolution will illustrate. Over the years since Darwin first put forward his version of the theory, there have been disputes and debates about the precise nature of the mechanisms involved, about the significance of genetic mutation, about the underlying social philosophy that it embodied and assumed, and so on. But the theory as held today is still recognizably Darwinian for all its modifications. Surely this provides some warrant for saying that the theory tells us something about the nature of the organic world. Certainly there may have been social factors endemic to the theory's formulation, but over time these will simply be filtered out.²¹

These, then, are some of the ways in which a defence against the radical relativism of earlier critics can be mounted. I am NOT claiming, of course, that this is a water-tight case. I am merely saying that for those of us who believe that science can tell us something about the way the world is, there is a case to be made. Equally, I emphatically insist that this is no simple return to a naive empiricism.

20. Ernan McMullin, 'A Case for Scientific Realism', in Jarrett Leplin (ed.), *Scientific Realism*, 8-40, (Berkeley University of California Press, 1984). I discuss the metaphorical character of evolution in 'Evolution as metaphor and myth', *Christian Scholar's Review* (1985), 12, 111-125.

21. Ernan McMullin, 'History and Philosophy of Science: A Marriage of Convenience?' *Philosophy of Science Association* (1974) 585-601.

All these defenders of realism know enough history of science to admit that social and other extra-scientific factors have insinuated their way into scientific practice at many levels. Political, metaphysical, professional, aesthetic concerns *have* conditioned the products of scientific knowledge. What they deny is that this provides grounds for a universal scepticism about science's cognitive claims. To my mind Martin Rudwick synthesizes matters well when he writes:

Scientific knowledge may indeed be a social construction ... and therefore a cultural product, but it does also claim to have a more-than-random relation to the externality of the natural world. It has become a commonplace of current thinking about science that the natural world greatly underdetermines the form that theories about it can take; but that insight should not lead us inadvertently into the position of implying that the natural world does not determine our theories at all ... To put it more simply, to see scientific knowledge as a social construction does not rule out the possibility of cumulative scientific progress.²²

If Christians are justifiably hesitant about the absolute relativism (to coin a term) of some philosophers of science, what about the work of historians and sociologists who provide a radical critique of scientific practice? My feeling is that where they make their case their critique should be welcomed with open arms. Surely it is never wrong to ask of any scientific theory questions like: Who propounded it? Who used it? What interest did it serve? When Marxists uncover the cultural roots, or ideological abuses of science, Christians should rejoice. Indeed the ideological captivity of science to particular group interests should come as no surprise to those who believe that human-kind is defaced, scarred, distorted. More, Christians in science should be in the vanguard of scientific self-criticism, because of all people, they should best understand the irrepressible idolatry of men and women, an idolatry that has transferred the sacred from the spiritual to the scientific realm.

So when the Marxist shows up the 'theodicean' pronouncements of those who peddle ideology under the guise of innocuous academic neutrality, we must join forces. Take, for example, the strategies of the biological determinists.²³ When we are told what human values are really embedded in the laws of nature, and when we see the outworkings of such a doctrine in the excesses of behaviouristic

22. Martin Rudwick, 'Senses of the Natural World and Senses of God: Another look at the Historical Relation of Science and Religion', in A. R. Peacocke (ed.) *The Sciences and Theology in the Twentieth Century*, 252 (Henley and London: Oriel Press, 1981).

23. See Steven Rose, Leon J. Kamin and R. C. Lewontin, *Not in Our Genes: Biology, Ideology and Human Nature*, (Harmondsworth: Penguin Books, 1984).

psychology, manipulative eugenics, in functionalist social science, or psychoanalytic therapy, or environmental determinism, we will want to cry loudly 'ideology'. In the works of Lorenz, Ardrey, Morris, even Darlington, ideological prescription was blatant, a couple of decades ago. Now the sociobiologists have taken on the task of naturalizing values in ways stunningly parallel to the scientific religionists of the late nineteenth century. When E. O. Wilson tells us that the 'scientific ethos' is 'superior to religion' we are put on the alert. When Ralph Burhoe claims that: 'For us what is true and what is right and what will prevail are not determined by military force or by any other arbitrary human wishes or pressures but essentially by those forces presented in the scientific picture of the historical flow of events in history' we encounter scientific theodicy. Small wonder that John Greene described E. O. Wilson's book *On Nature*, and G. G. Simpson's *The Meaning of Evolution*, as the 'Bridgwater Treatises of the twentieth century.'²⁵

My point, let me repeat in closing, is not that science is all ideology, but the fact that it *has* often been so must be taken seriously. Indeed only by scotching the scientism that rules today, the sacralisation of science if you will, can we begin the task of discerning the legitimate role science *does* play in the understanding of human nature, while retaining the vitality and integrity of discourse about morality, politics, freedom and grace.

Let me conclude with some words from John Greene:

As a student of the history of ideas, I am convinced that science, ideology, and world-view will forever be intertwined and interacting. As a citizen concerned for the welfare of science and of mankind generally, however, I cannot but hope that scientists will recognize where science ends and other things begin.²⁶

24. On this I have derived much help from John R. Durant, 'Evolution and Ethnics. Ethnology, Sociobiology, and the Naturalization of Religious Values', Paper presented in the 'Science and Religion' Symposium at the XVIIth International Congress of History of Science, University of California at Berkeley, U.S.A., August 1985.

25. John C. Greene, *Science, Ideology, and the World View. Essays in the History of Evolutionary Ideas*, 163, (Berkeley: University of California Press, 1981).

26. *ibid.* p. 197.

David G. Myers

Yin and Yang in Psychological Research and Christian Belief

When Christian psychologists link their profession with their faith they typically do one of three things: they analyze religious phenomena, such as conversion or prayer, through a psychological microscope; they correlate the speculations of personality theorists with the presumptions of theologians; or they propose a distinctly Christian approach to counselling or to psychological inquiry. My own interests in linking psychology and faith are rather different and for the most part arise from my involvement in the mainstream of psychological research and my vocation as a teacher of psychology. Thus my occupation—indeed my preoccupation—is to ponder two questions: What are the major insights and ideas regarding human nature that college and university students should encounter in their courses in introductory and social psychology? And how does the human image emerging from contemporary psychology connect with Christian assumptions about human nature?

In any academic field the results of tens of thousands of studies, the conclusions of thousands of investigators, the insights of hundreds of theorists, can usually be boiled down to a few overriding ideas. Biology offers us principles such as natural selection and adaptation. Sociology builds upon concepts such as social structure and social process. Music develops our ideas of rhythm, melody, and harmony.

It occurred to me when contemplating this address that many of the major insights and ideas of psychology—especially of social and cognitive psychology—could be distilled down to five pairs of complementary principles. Remarkably, these five pairs of complementary principles are paralleled in Christian thought by five pairs of theological principles.

Each psychological and theological principle represents a partial truth—an important aspect of a total system. As Pascal reminded us, no single truth is ever sufficient, because the world is not simple. Any truth separated from its complementary truth is a half-truth. It is in the

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union of complementary opposites—of what the Chinese called yin and yang—that one glimpses the whole reality.

Consider, first, five great principles of contemporary psychology that unite with five complementary principles, like the five fingers of the left hand clasping the five fingers of the right, to form a more complete grasp of the human system. As we move along through these five pairs of psychological principles you will, perhaps, be able to anticipate some of the Christian ideas that parallel this yin and yang of psychological research.

The yin and yang of psychological research

Brain and Mind

The explosion of recent research on genetic influences on behaviour, on the influence of neurotransmitters on thought and emotion, and on the intricate links between brain structures and language, perception and memory, confirms more surely than ever that *mind emerges from brain*. My colleague Malcolm Jeeves, a cognitive neuroscientist, is unhesitating: 'Every new advance in the flourishing field of neuro-psychology tightens the apparent links between the brain and mind.'¹

Although much mystery remains, we now understand better than ever the specific brain malfunctions that cause disorders of speaking, reading, writing, or understanding language. We have glimpsed how precise surgical or chemical manipulations of the brain can manipulate thoughts, moods, and motives. We are beginning to understand the awesome process by which our sensory systems and brains decompose sensory experiences into formless neural impulses and then reassemble them into their component features and, finally, into conscious perceptions. We are being offered new clues to the extent and the mechanisms of genetic influences upon countless traits, from emotionality to intelligence, from criminal tendencies to altruism, from gender differences to schizophrenia.

Neuroscientist David Hubel has said that 'Fundamental changes in our view of the human brain cannot but have profound effects on our view of ourselves and the world.'² The dualistic view that mind and body are distinct entities—that we are, as Descartes believed, lodged in our bodies as pilots in their vessels—seems more and more implausible. Thus psychologist Donald Hebb concludes that however implausible it may be to say that consciousness consists of brain

1. In Myers, D. G., & Jeeves, M. A. (not yet titled book). San Francisco: Harper & Row, 1987.

2. Hubel, David H. 'The brain.' *Scientific American* 1979, 45–53.

activity, 'it nevertheless begins to look very much as though the proposition is true.'¹³ Mind emerges from brain.

This apparent truth is, however, complemented by another truth: *mind controls brain*. In many ways our brains function mindlessly, by automatically, effortlessly, and usually infallibly managing a myriad of routine functions. This frees our consciousness to focus, rather like the chief executive of a great country or corporation does, on the most important problems at hand. In doing so, our conscious experience directs the brain to control bodily functions in ways once thought impossible. In the burgeoning field of health psychology, for example, we are discovering the bodily consequences of stresses. We are learning more about the effects of emotions such as anger on a person's vulnerability to heart disease and to disorders of the immune system. We are exploring psychological techniques of pain control and stress management and gaining clues to the control of ailments such as tension headaches and hypertension. We are glimpsing how social support or even a sense of humour helps buffer the effects of stress. These examples of 'mind over body' are extensions of phenomena we frequently experience. Embarrassed, we blush, frightened, we feel our heart pounding, our skin perspiring. Thus our first pair of complementary principles: mind emerges from brain, and mind controls brain.

Attitudes and behaviour

Among social psychology's best known principles are those that describe the reciprocal relations between attitudes and behaviour. During the 1960s, dozens of research studies challenged the assumption that people's attitudes guide their actions. But studies since 1970 have revealed conditions under which our attitudes *do* influence our actions. This is especially true when we are keenly aware of our attitudes and when other influences on our behaviour, such as social pressures, are minimized. If our attitudes toward cheating, or church-going, or racial minorities are brought to mind in a pertinent situation—if something causes us to stop and remember who we are before we act—then we may indeed stand up for what we believe. In such situations, *attitudes influence behaviour*.

But if social psychology has taught us anything during the last three decades it is that the reverse is also true: we are as likely to act ourselves into a way of thinking as to think ourselves into action; we are as likely to believe in what we have stood up for as to stand up for

3. Hebb, D. O. *Essay on Mind*. Hillsdale, N.J.: Erlbaum, 1980.

what we believe. Simply put, *attitudes follow behaviour*. Consider a few examples of the wide-ranging evidence:

- * In the laboratory, and in everyday situations, evil acts shape the self. People induced to harm an innocent victim typically come to disparage the victim. Those induced to speak or write statements about which they have misgivings will often come to accept their little lies. Saying becomes believing.
- * Positive actions—resisting temptation, giving help to someone, behaving amicably in desegregated situations—also shape the self. As social psychologists predicted would happen, changes in racial behaviour resulting from desegregation rulings and civil rights legislation have been followed by positive changes in racial attitudes. Evil actions corrupt, but repentant actions renew.
- * Many of today's therapy techniques make a constructive use of the self-persuasive effects of behaviour. Behaviour therapy, assertiveness training, and rational-emotive therapy all coax their clients to rehearse and then practice more productive ways of talking and acting, trusting that by so doing the person's inner disposition will gradually follow along.

This principle, like that of its complement, is especially valid under certain conditions—notably when people feel some choice and responsibility for their behaviour rather than attributing it entirely to coercion. But most behaviour, even the enforced Nazi greeting, 'Heil Hitler,' does involve some element of choice. Thus there often occur feelings of discomfort when one's behaviour is out of alignment with one's attitudes. For example, historian Richard Grunberger reports that when 'prevented from saying what they believed,' many Germans 'tried to establish their psychic equilibrium by consciously making themselves believe what they said.'⁴

To repeat, two fundamental principles of social psychology are that attitudes influence behaviour, and attitudes follow behaviour. Behaviour and attitude, like chicken and egg, generate one another in an endless spiral.

Self-serving bias and self-esteem

It is widely believed that most of us suffer the 'I'm not OK—you're OK' problem of low self-esteem, the problem that comedian Groucho Marx had in mind when he declared that 'I'd never join any club that would accept a person like me.' As we will see, there is evidence supporting today's conventional wisdom about the benefits of high

4. Grunberger, R. *The 12-Year Reich: A Social History of Nazi Germany 1933–1945*, 27, New York: Holt, Reinhart & Winston, 1971.

self-esteem and positive thinking. But we moderns seem less aware of the powerful phenomenon called 'self-serving bias' that has been revealed by a dozen lines of research. Consider:

- * People readily accept responsibility for their successes and good deeds, but are prone to attribute failure or bad deeds to factors beyond their control. Self-serving attributions have been observed not only in countless laboratory situations, but also with athletes (after victory or defeat), with students (after high or low exam grades), with drivers (after accidents), and with married people as they explain their conflicts. Researcher Anthony Greenwald sums up countless findings: 'People experience life through a self-centred filter.'⁵
- * In virtually any area that is both subjective and socially desirable, most people see themselves as relatively superior. Most business people see themselves as more ethical than the average business person. Most community residents see themselves as less prejudiced than their neighbours. Most people see themselves as more intelligent and as healthier than most other people. In 'ability to get along with others' virtually all American high school seniors (in one survey of nearly a million of them) rated themselves above average and 60 percent put themselves among the top 10 percent. As Elizabeth Barrett Browning might have summarized, 'How do I love me? Let me count the ways.'

These observations of self-serving attributions of responsibility and self-serving perceptions of superiority are joined by other findings. Many studies indicate that: we tend to justify our past actions; we have an inflated confidence in the accuracy of our beliefs and judgments; we tend to overestimate how desirably we would act in situations in which most people are known to behave less than admirably; we are quicker to believe flattering descriptions of ourselves than unflattering ones; we misremember our own past in self-enhancing ways; we exhibit a Pollyanna-ish optimism about our personal futures; we guess that physically attractive people have personalities more like our own than do unattractive people.

The list goes on, but the point is made. At times we may disparage ourselves, especially when comparing ourselves with those who are even more successful than we are or when our expressions of self-disparagement can trigger reassuring praise from others. Nevertheless, the evidence is overwhelming: the most common error in people's self-images is not unrealistically low self-esteem, but a self-serving bias; not an inferiority complex, but a superiority complex.

The phenomenon is not only pervasive but also at times socially disruptive. For example, people who work on a group task will

5. Quoted by D. Coleman, 'A Bias Puts Self at Center of Everything,' *The New York Times* (June 12, 1984), pp. C1, C4.

typically claim greater-than-average credit when their group does well and less-than-average blame when it does not. When most people in a group believe they are underpaid and underappreciated, given their better-than-average contributions, disharmony and envy surely lurk. Several surveys indicate that 90 percent or more of college faculty think themselves superior to their average colleague. Is it therefore surprising that when merit salary rises are announced and half receive an average rise or less, many will feel an injustice has been done them?

More dangerous yet is self-serving bias in its collective forms. Racism, sexism, nationalism, and all such chauvinisms lead one group of people to see themselves as more moral, deserving, or able than another. The flip-side of taking credit for one's self-perceived achievements is to blame the poor for their poverty and the oppressed for their oppression. Samuel Johnson recognized this two hundred years ago: 'He that overvalues himself will undervalue others, and he that undervalues others will oppress them.'

In recognizing this principle, that *self-serving bias is powerful and perilous*, we must, however, not forget its complement: that *high self-esteem and positive thinking pay dividends*.

People who express high self-esteem—feelings of self-worth—tend to be less depressed, freer of ulcers and insomnia, less prone to drug addiction, more independent of conformity pressures, and more persistent at difficult tasks. In experiments, those whose self-esteem is given a temporary blow (say, by being told they did poorly on a test or were judged harshly by others) tend then to express heightened racial prejudice. Many clinicians believe that underneath much of the despair and psychological disorder with which they deal is an impoverished self-acceptance. For children and adults a high self-esteem can indeed be healthy.

The power of positive thoughts about oneself is evident in the hundreds of studies that testify to the benefits of a strong 'internal locus of control'—a belief in one's ability to control one's destiny. These are reinforced by hundreds more studies on the benefits of 'self-efficacy,' 'intrinsic motivation,' and 'achievement motivation,' and of the costs of 'learned helplessness' and self-defeating thinking patterns. The moral of all these research literatures is that people profit from viewing themselves as free creatures and their futures as hopeful. Believe that things are beyond your control and they probably will be. Believe that you can do it, and maybe you will.

But of course there are limits to the power of positive thinking. Limitless expectations inevitably bring endless frustrations and the

guilt and shame that accompany the failure to achieve what we believed was achievable—A grades, record sales, marital bliss.

So where do these complementary self-image principles leave us? For the individual, self-affirming thinking is often adaptive, by maintaining self-confidence and minimizing depression. But it is also important to remember the reality of self-serving bias and the harm that self-righteousness can wreak upon social relationships. The question is, therefore, how can we encourage a positive self-acceptance, while not encouraging self-serving pretensions?

Situational and personal control

Yet another overarching principle comes to us as the greatest lesson of social psychology, that social influences are enormous. Indeed, it is difficult to overestimate the extent to which our decisions, beliefs, attitudes, and actions are influenced by our social environments. *We are the creatures of our social worlds.* Consider some everyday examples of but four phenomena of social influences:

Suggestibility: Suicides, bomb threats, hijackings, and UFO sightings have a curious tendency to come in waves. One well-publicized incident—the suicide of a famous movie star—can inspire imitation. Copycat perceptions and actions are not restricted to crazy people. Laughter, even canned laughter, is contagious. Bartenders and beggars know to ‘seed’ their tip or money cups with money supposedly left by others.

Role playing: A group of decent young men volunteered to spend time in a simulated prison devised by psychologist Philip Zimbardo. Some were randomly designated as guards. They were given uniforms, billy clubs, and whistles, and were instructed to enforce certain rules. The remainder became prisoners, locked in barren cells and forced to wear humiliating outfits. After a day or two of ‘playing’ their roles, the young men became caught up in the situation. The guards devised cruel and degrading routines, and one by one the prisoners either broke down, rebelled, or became passively resigned. Meanwhile, outside the laboratory, another group of men was being trained by the military junta then in power in Greece to become torturers. The men’s indoctrination into cruelty occurred in small steps. First, the trainee would stand guard outside the interrogation and torture cells. Then he would stand guard inside. Only then—having absorbed the role—was he ready to become actively involved in the questioning and cruelty.

Persuasion: In late October of 1980, U.S. presidential candidate

Ronald Reagan trailed incumbent Jimmy Carter by 8 percentage points in the Gallup Poll. On November 4, after a 2-week media blitz and a presidential debate, Reagan, 'the great persuader,' emerged victorious by a stunning 10 percentage points. The Reagan landslide made many people wonder what qualities made Ronald Reagan so persuasive? And his audience so persuadable?

Group influence: One of the first major decisions President John F. Kennedy and his bright and loyal advisers had to make was whether to approve a Central Intelligence Agency plan to invade Cuba. The group's high morale seemed to foster a sense that the plan couldn't help but succeed. No one spoke sharply against the idea, so everyone assumed there was consensus support for the plan, which was then implemented. When the small band of U.S.-trained and -supplied Cuban refugee invaders was easily captured and soon linked to the American government, Kennedy wondered aloud, 'How could we have been so stupid?'

Each of these phenomena of social influence has been 'bottled up' in countless laboratory experiments that isolate their important features and compress them into a brief time period, enabling us to see just how they affect people. A few of the best known of these experiments have put well-intentioned people in an evil situation to see whether good or evil prevails. To a dismaying extent, evil pressures overwhelm good intentions, inducing people to conform to falsehoods or capitulate to cruelty. Faced with a powerful situation, nice people often don't behave so nicely.

In affirming the power of social influence, we must not overlook the complementary truth about our power as individuals: *We are the creators of our social worlds.* Social control (the power of the situation) and personal control (the power of the person) co-exist, for at any moment we are both the creatures and the creators of our environment. We may well be the products of past biological and social influences, but it is also true that the future is coming, and it is our job to decide where it is going. Our choices today determine our environment tomorrow, and as we noted earlier those who most believe in their power to influence their destinies tend most successfully to do so.

The reciprocal influences between situations and persons occurs partly because individuals often choose their situations. When choosing which college to attend or which campus groups to join, a student is also choosing a particular set of social influences. Ardent political liberals are unlikely to settle in Orange County, California, join the Chamber of Commerce, or read *U.S. New and World Report*.

They are more likely to live in San Francisco, join Common Cause, and read the *New Republic*.

Also, our expectations and behaviour will modify our situations. As many recent experiments demonstrate, if we expect someone to be extraverted, hostile, feminine, or sexy, our actions toward the person may induce the very behaviour we expect. The social environment is not like the weather—something that just happens to us. It is more like our homes—something we have made for ourselves and in which we now live.

Again, the reciprocal influences between situations and persons allow us to see people as either reacting to or acting upon their social environment. Each perspective is correct, for we are both the products and the architects of our social worlds.

Rationality and irrationality

The debate over the extent of human wisdom versus the magnitude of human foolishness is longstanding. Are we, as Shakespeare's Hamlet rhapsodized, 'noble in reason! . . . infinite in faculties! . . . in apprehension how like a God!?' Or are we, as T. S. Eliot suggested, 'hollow men . . . Headpiece filled with straw'?

Research psychologists of late have produced considerable ammunition for both sides of the debate. Some of their findings lead us to marvel at our capabilities, others to be startled by our capacity for illusion and self-deception. Let's consider some of this new thinking about thinking, looking first at findings which suggest that *our cognitive capacities are awesome*.

We have been amazed by capabilities that are enabled by the human brain—a mere three pounds of tissue that contains circuitry more complex than all the telephone networks on the planet. We have been surprised at the competence even of newborn infants—at their skill in interacting with their caregivers, their ability to discriminate the sound and smell of their mothers, their abilities to imitate simple gestures. We have marvelled at the seemingly limitless capacity of human memory and the ease with which we simultaneously process varied information, both consciously and unconsciously, effortfully and automatically, with each hemisphere of the brain carrying out special functions. We have wondered at our abilities to form concepts, solve problems, and to make quick, efficient judgments using rule-of-thumb strategies called heuristics. Little wonder that our species has had the genius to invent the camera, the car, and the computer; to unlock the atom and crack the genetic code; to travel into space and probe the depths of the oceans.

We have also been awestruck by the ease with which children acquire language. Before children can add 2 plus 2 they are creating their own grammatically intelligible sentences and comprehending the even more complex sentences spoken to them. Before being able to tie their shoes, preschoolers are soaking up several new words a day and grasping complex grammatical rules with a facility that humbles computer scientists as they struggle to simulate natural language. Or consider your own dimly-understood capacity for language—how, in your most recent conversation, you managed *all at once* to monitor your muscles, order your syntax, watch out for semantic catastrophes that would result from a slight change in word order, continuously adjust your tone of voice and expressive gestures, and say something meaningful when it would have been so easy to speak gibberish. Indeed, it is this human capacity to do so many complex things all at once—to sense the environment, to encode information about the place, timing and frequency of experienced events, to interpret word meanings, to use common sense, to experience emotion, and even to consciously wonder how we do it—that causes us to echo Hamlet: how 'infinite in faculties! . . . how like a God!' We are indeed *Homo sapiens*, the wise species.

But the complementary truth is that our capacity for illusory thinking is equally astonishing. *To err is human*. I know from experience that one can fill a book describing our human tendencies to self-deception and false belief. Thanks to countless experiments since 1970 in the burgeoning subdiscipline of 'cognitive social psychology' we have gained insight into many of the intuitive thinking patterns that, as the price we pay for their efficiency, can lead us astray. Among these reasons for unreason are the following:

First, we often do not know why we do what we do. In experiments, people whose attitudes have been changed will often deny that they have been influenced; they will insist that how they feel now is how they have always felt. When powerful influences upon our behaviour are not so conspicuous that any observer could spot them, we too can be oblivious to what has affected us.

Second, our preconceptions help govern our interpretations and memories. In experiments, people's prejudgments have striking effects upon how they perceive and interpret information. Other experiments have planted judgments or false ideas in people's minds after they have been given information. These experiments reveal that just as before-the-fact judgments bias our perceptions and interpretations, so do after-the-fact judgments bias our recall.

Third, we tend to overestimate the accuracy of our judgments. This 'overconfidence phenomenon' seems partly due to the much greater

ease with which we can imagine why we might be right than why we might be wrong. Moreover, people are more likely to search for information that can confirm their beliefs than information that can deny them.

Fourth, vivid anecdotes and testimonies can be powerfully persuasive, often more so than factual data drawn from a much broader sample of people. This is apparently due to the attention-getting power of vivid information, and to the ease with which we later recall it.

Fifth, we are often swayed by illusions of correlation, causation, and personal control. It is tempting to perceive correlations where none exist ('illusory correlation'), to perceive causal connections among events which are merely correlated (the 'correlation-causation' fallacy), and to think we can control events which are really beyond our control (the 'illusion of control').

Finally, erroneous beliefs may generate their own reality. Studies of experimenter-bias and teacher-expectations indicate that at least sometimes an erroneous belief that certain people are unusually capable (or incapable) can lead one to give special treatment to those people. This may elicit superior (or inferior) performance, and therefore seem to confirm an assumption that is actually false. Similarly, in everyday social affairs we often get what we expect.

It is important to remember that these illusory thinking processes are by-products of thinking strategies that usually serve us well, much as visual illusions are a by-product of perceptual mechanisms that help us organize sensory information. But they are errors nonetheless, errors that can warp our perceptions of reality and prejudice our judgments of persons, leading us at times to act like headpieces filled with straw. By becoming aware of such tendencies we may, perhaps, also become a bit more humble about our intuitive judgments, more aware of our need for disciplined training of the mind, and more open to careful analysis and critique of our judgments. It is true that our cognitive capacities are awesome, but it also is true that to err is the most human of tendencies.

'There are trivial truths and great truths,' declared the physicist Niels Bohr. 'The opposite of a trivial truth is plainly false. The opposite of a great truth is also true.'⁶ Psychological inquiry illustrates Bohr's contention. Massive bodies of research indicates that mind emerges from brain, and that mind controls brain; that attitudes influence behaviour, and that attitudes follow behaviour; that self-serving bias is

6. Quoted by W. McGuire, 'The Yin and Yang of Progress in Social Psychology: Seven Koan.' *Journal of Personality and Social Psychology*, 1973, 26, 446-456.

powerful and perilous, and that self-esteem and positive thinking pay dividends; that we are the creatures of our social worlds, and that we are the creators of our social worlds; that our cognitive capacities are awesome, and that to err is human. To propound any of these truths while ignoring its complement is to proclaim a half-truth. It is in the union of complementary opposites, of yin and yang, that we glimpse the human reality.

Ying and Yang in Christian belief

Although I have so far avoided any mention of Christian views of human nature, some of what I have said may have a vaguely familiar ring. And well it should, for these five complementary pairs of psychological principles parallel five pairs of Christian assumptions. Consider:

Body and spirit

The emerging scientific view that we are a unified mind-brain system may pose a threat to those who, in the tradition of Plato and Socrates, believe we are a dualism of two distinct realities, a mortal body and an undying soul. But it is supportive, in its fundamentals if not its details, of the implicit psychology of the Old Testament people—who were said to think with their hearts, feel with their bowels, and whose flesh longed for God. In this Hebrew view one's *nephesh* (soul) therefore terminates at death; we do not have *nephesh* (Plato's immortal soul), we *are nephesh* (living beings).

The New Testament similarly offers us whole persons—'souls' who can eat, drink and be merry. And it offers the hope that after death we, like Christ, will be resurrected as a perfected mind-body unit. For the Christian, death is a real enemy, not merely a 'passing away' of the immortal soul as it was for Socrates drinking the hemlock. But we are promised that God will take the initiative by giving us in a new world what we do not inherently possess—eternal life.

Our minds are nothing apart from our bodies, suggests the scientific image. *We are, now and in eternity, bodies alive*, suggests the Bible. Fundamentally, both views assume—in contradiction to occult and spiritualist claims of reincarnation, astral projection, and seances with the living dead—that without our bodies we are nobodies.

Having said this, we must also add the complementary truth—that in both the scientific and Christian views something special and mysterious emerges from the unimaginably complex activity of the body. So far as neuroscientists can tell, mind is not an extra entity that

occupies the brain. Yet there it is—our memories, our wishes, our creative ideas, our moment-to-moment awareness—somehow arising from the co-ordinated activity of billions of nerve cells, each of which communicates with hundreds or thousands of other nerve cells. From the material brain, there emerges the mystery of consciousness.

A scientific analogy may help us to see how the properties of a whole system, such as the brain-mind system, may emerge from, yet not reducible to, its physical parts. Physically, an ant colony is but a collection of solitary ants, each of which has a relatively few neurons strung together—a witless, thoughtless creature if ever there was one. Yet the interactions of a dense mass of thousands of ants produces a wondrous phenomenon—a collective intelligence, a social organism that 'knows' how to grow, how to move, how to build. There is nothing extra plugged into the ants to create this intelligence. Yet to look no further than the individual ants would be to miss the miracle of the living colony. Likewise, to stop with the story of the brain cells would be to miss the miracle of consciousness.

Similarly, while the Bible teaches that we are bodily creatures, made from dust, it also teaches that we have the potential for something special and mysterious: *we are created for spiritual relationships*. To Paul and other biblical writers, our spirituality has not to do with an invisible essence that is plugged into a bodily compartment, like a pilot in a small plane, but with the whole person in relationship with God and other persons. Theologian Bruce Reichenbach suggests that to recapture this sense of spirituality we ought to drop the term 'soul' from our religious vocabulary: 'Such an approach, far from destroying faith in the spiritual aspect of man, will aid in clarifying precisely wherein the spiritual lies, i.e., that it lies not in the possession of an entity, but in the style of life one leads insofar as it manifests a relation to God and to one's fellow man.'⁷

Faith and action

The social psychologist's contention that attitudes and behaviour grow from each other parallels and reinforces the biblical understanding of action and faith. Depending on where we break into the spiralling faith-action chain, we will see faith as a source of action or as a consequence. Faith and action, like attitude and action, feed one another.

Much as conventional wisdom has insisted that our attitudes determine our behaviour, so has Christian thinking traditionally

7. Reichenbach, B. 'Life After Death: Possible or Impossible?' *Christian Scholar's Review*, 1974, 3, 232-244.

emphasized that *faith is a source of action*. Faith, we believe, is the beginning rather than the end of religious development. For example, the experience of being 'called' demonstrates how faith can precede action in the lives of the faithful. Elijah is overwhelmed by the Holy as he huddles in a cave. Paul is touched by the Almighty on the Damascus Road. Ezekiel, Isaiah, Jeremiah and Amos are likewise invaded by the Word, which then explodes in their active response to the call. In each case, an encounter with God provoked a new state of consciousness which was then acted upon.

The dynamic potential of faith is, however, complemented by the not-so-widely appreciated principle that *faith is a consequence of action*. Throughout the Old and New Testaments we are told that full knowledge of God comes through actively 'doing' the Word. Faith is nurtured by obedient action. For example, in the Old Testament the Hebrew word for *know* is generally used as a verb, as something one does. To know love, we must not only know about love but we must act lovingly. And to *hear* the word of God means not only to listen but also to obey.

Likewise, we read in the New Testament that by loving action a person knows God, for 'he who does what is true comes to the light.' Jesus declared that whoever would do the will of God would know God, that he would come and dwell within those who heed what he said, and that we would find ourselves by actively losing ourselves as we take up the cross. The wise man, the one who built his house on rock, differed from the foolish man in that he acted on God's Word. Over and again, the Bible teaches that the gospel power can only be known by living it.

Our theological understanding of faith is informed by this biblical view of knowledge. Faith grows as we act on what little faith we have. Just as experimental subjects become more deeply committed to something for which they have suffered and witnessed, so also do we grow in faith as we act it out. Faith 'is born of obedience,' said John Calvin.⁸ 'The proof of Christianity really consists in "following" ' declared Soren Kierkegaard.⁹ Karl Barth agreed: 'Only the doer of the Word is its real hearer.'¹⁰ Pascal is even more plainspoken: To attain faith, 'follow the way by which [the committed] began; by acting as if they believed, taking the holy water, having masses said, etc.

8. Calvin, J. *Institutes of the Christian Religion*, I, VI, 2, 72, (J. T. McNeil, Ed., F. L. Battles, trans.). Philadelphia: Westminster Press, 1975.

9. Kierkegaard, S. *For Self-Examination and Judge for Yourself*, 88, (W. Lowrie, trans.). Princeton: Princeton University Press, 1944.

10. Quoted by J. H. Westerhoff III, *Values for Tomorrow's Children*, 44, Philadelphia: Pilgrim Press, 1971.

Even this will naturally make you believe . . .¹¹ C. S. Lewis echoed Pascal's sentiments:

Believe in God and you will have to face hours when it seems *obvious* that this material world is the only reality: disbelieve in Him and you must face hours when this material world seems to shout at you that it is *not* all. No conviction, religious or irreligious, will, of itself, end once and for all [these doubts] in the soul. Only the practice of Faith resulting in the habit of Faith will gradually do that.¹²

The practical implication of this faith-follows-action principle is that in church management, in worship, and in Christian nurture we need to create opportunities for people to enact their convictions, thereby confirming and strengthening their Christian identity. Biblical and psychological perspectives link arms in reminding us that faith is like love. If we hoard it, it will shrivel. If we use it, exercise it, and express it, we will have it more abundantly. In his *Cost of Discipleship*, Dietrich Bonhoeffer summarized this faith-action spiral: '*Only he who believes is obedient, and only he who is obedient believes.*'

Human pride and divine grace

The new research on self-serving bias is aptly summarized in a W. C. Fields quip: 'Hubris is back in town.' The abundant evidence that human reason is adaptable to self-interest and that our self-perceptions tend to be self-justifying echoes a very old Christian idea: that *pride is the fundamental sin*, the original sin, the deadliest of the seven deadly sins.

Unpacking this doctrine of pride we find that it has two components. First is the assumption that self-love and self-righteous pretension are pervasive. Thus the Psalmist could declare that 'No one can see his own errors' and the Pharisee could thank God 'that I am not like other men' (and you and I can thank God that we are not like the Pharisee). Paul assumed our self-perceived superiority when he admonished the Philippians to reverse this tendency—to 'in humility count others better than yourselves.' Likewise, he assumed self-love when he argued that husbands should love their wives as their own bodies, just as Jesus assumed self-love when commanding us to love our neighbours as we love ourselves. The Bible neither teaches nor opposes self-love; it takes it for granted.

The Christian doctrine of pride assumes, secondly, that prideful self-love can go before a fall. The Bible warns us against self-

11. Pascal, B. *Thoughts*, 233 (W. F. Trotter, trans.), in M. Mack (Ed.), *World Masterpieces*, vol. 2, 38, (New York) Norton, 1965.

12. Lewis, C. S. *Christian Reflections*, 61, Glasgow: Collins (Fount Paperbacks), 1981.

righteousness—the pride that alienates us from God and leads us to disdain one another. Pride is the fundamental sin because it corrodes human community by eroding our sense of dependence on one another and on God. The Nazi atrocities, for example, were rooted not in self-conscious feelings of German inferiority but in Aryan pride. The arms race is fed by a national pride that enables each nation to perceive its own motives as righteously defensive, the other's as hostile. Even that apostle of positive thinking Dale Carnegie foresaw the danger: 'Each nation feels superior to other nations. That breeds patriotism—and wars.'

The sin that grows from human pride is an essential part of the biblical story, but it is not the whole story. In the *Interpreter's Dictionary of the Bible*, S. J. DeVries reduces the whole of Scripture to a pair of propositions: We find ourselves 'in sin and suffer its painful effects; God graciously offers salvation from it. This, in essence is what the Bible is about.' The salvation half of the story proclaims an unshakeable basis for self-esteem: Our worth is said to be more than we appreciate—certainly more than that of 'the birds of the air' and God's other creatures. It is worth enough to motivate Jesus' kindness and respect even toward those with little honour—toward women and children, Samaritans and Gentiles, leprosy victims and prostitutes, the poor and the tax collectors. Recognizing that our worth is what we are worth to God—an agonizing but redemptive execution on a cross—therefore draws us to a self-affirmation that is rooted in divine love.

Thus the Christian answer to self-righteous pride is the good news that *to experience grace is to feel accepted* and therefore to be liberated from the need to define our self-worth in terms of achievements, or prestige, or material and physical well-being. It is simultaneously to be liberated both from our self-protective pride and our self-rejection. Recall Pinocchio. Floundering in confusion about his self-worth, Pinocchio turns to his maker Gepetto and says, 'Pappa, I am not sure who I am. But if I'm all right with you, then I guess I'm all right with me.' In the life, death, and resurrection of Jesus, our Maker signals to us that we belong to him and that we are set right. St. Paul, surrendering his pretensions, could therefore exult that 'I no longer have a righteousness of my own, the kind that is gained by obeying the Law. I now have the righteousness that is given through faith in Christ . . .'.¹³

'To give up one's pretensions is as blessed a relief as to get them gratified,' noted William James, 'and where disappointment is incessant and the struggle unending, this is what men will always do. The history of evangelical theology, with its conviction of sin, its self-

13. Philippians 3:9.

despair, and its abandonment of salvation by works, is the deepest of possible examples.¹⁴ There is indeed tremendous relief in confessing our limits and our pride, in being known as we are, and in then experiencing 'unconditional positive regard.' Having been forgiven and accepted, we gain release, a feeling of being given what formerly we were struggling to get: security, peace, love. Having cut the pretensions and encountered divine grace, we feel *more* not less value as persons, for our self-acceptance no longer depends exclusively upon our own virtue and achievement nor upon others' approval.

The feelings one can have in this encounter with God are like those we enjoy in a relationship with someone who, even after knowing our inmost thoughts, accepts us unconditionally. This is the delicious experience we enjoy in a good marriage or an intimate friendship, in which we no longer feel the need to justify and explain ourselves or to be on guard, in which we are free to be spontaneous without fear of losing the other's esteem. Such was the Psalmist's experience: 'Lord, I have given up my pride and turned away from my arrogance . . . I am content and at peace.'¹⁵

Divine sovereignty and human responsibility

The dialectic of situational and personal control finds its Christian counterpart in the paradox of God's sovereignty and our responsibility. Attacks on the idea that we are self-made people—that thanks to our free will we are independently capable of righteousness—have come not only from social researchers but also from theologians such as Augustine, Luther, Calvin, and Jonathan Edwards. *God is ultimately in control*, they insist.

Edwards would not give so much as an inch to human free-will, because to the extent that human will is spontaneous and free, God's plans become dependent on our decisions. But this, said Edwards, would necessitate God's 'constantly changing his mind and intentions' in order to achieve his purposes. 'They who thus plead for man's liberty, advance principles which destroy the freedom of God himself,' the sovereign God of whom Jesus said not even a sparrow falls to the ground apart from his will.¹⁶ Nor is human will added to God's will such that the two together equal 100 percent. Rather, agreed St. Augustine, 'our wills themselves are included in that order of causes which is certain to God.'¹⁷ God is working in and through our lives, our choices. He is due all credit even for our faith, insisted

14. James, W. *The Principles of Psychology*, vol. 2. New York: Holt, 1890.

15. Psalm 131.

16. Edwards, J. *Freedom of the Will* (P. Ramsey, Ed.). 253, 27. New Haven: Yale University Press, 1957.

Luther. His grace operates within the processes of nature, suggested Thomas Aquinas; God sustains and orders the natural processes that shape us.

But there can also be no doubt that the Bible assumes that *we are responsible*. We are accountable for our choices and our action. The streams of causation run through our present choices, which will in turn determine the future. So what we decide makes all the difference. Even our decision to believe—to choose whom we will serve—is in our hands.

Everything depends on us and everything depends on God. 'I . . . yet not I, but the grace of God,'¹⁸ said St. Paul. C. S. Lewis notes that the New Testament puts these two ideas together

into the amazing sentence. The first half is, 'Work out your own salvation with fear and trembling'—which looks as if everything dependent on us and good actions: but the second half goes on, 'For it is God who worketh in you'—which looks as if God did everything and we nothing. I am afraid that is the sort of thing we come up against in Christianity. I am puzzled, but I am not surprised. You see, we are now trying to understand, and to separate into watertight compartments, what exactly God does and what man does when God and man are working together. And, of course, we begin by thinking it is like two men working together, so that you could say, 'He did this bit and I did that.' But this way of thinking breaks down. God is not like that. He is inside you as well as outside. . . .¹⁹

Faced with this paradox of divine responsibility and human responsibility, or with the twin truths of social and personal control, we might think of ourselves as like someone stranded in a deep well with two ropes dangling down. If we grab either one alone we will sink deeper into the well. Only when we hold both ropes at once can we climb out, because at the top, beyond where we can see, they come together around a pulley. Grabbing only the rope of God's sovereignty or of our responsibility plunges us to the bottom of a well. So instead we grab both ropes, without yet understanding how they come together. In doing so, we may be comforted that in science as in religion, a confused acceptance of seemingly irreconcilable principles is sometimes more honest than a tidy over-simplified theory that ignores half the evidence.

Divine image and finite creature

The tension between the grandeur of our cognitive capacities and

17. Augustine, *The City of God*, Book 5, Chapter 9.

18. I Corinthians 15:10.

19. Lewis, C. S. *Mere Christianity*, Book III, Chapter 12.

our vulnerability to error was anticipated by the Psalmist. Thus he could exult that human beings are 'little less than God' in the very next breath after wondering 'What is man that thou art mindful of him?' Pascal's *Pensees* reflect a similar ambivalence. One moment we read that 'Man's greatness lies in his power of thought' and the next moment that the human mind is 'a cesspool of uncertainty and error.'

And so it is throughout the scripture. *We are made in the image of God*, crowned with honour and glory, and given dominion over God's created world. Humanity is special. We are the summit of God's creative work. We are God's own children.

Yet we are also a part of the creation. *We are finite creatures* of the one who declares 'I am God, and there is none like me.'²⁰ Loved by God, we have dignity, but not deity. Thus Karl Barth warns us never to make an idol out of our religion, by presuming our own thoughts to be God's absolute truth. Always we see reality in a mirror, dimly. 'For as the heavens are higher than the earth, so are my ways higher than your ways and my thoughts than your thoughts.'²¹

So we see that in Christian belief, much as in contemporary psychology (see Table 1), the whole truth seems best approximated by complementary propositions: we are, now and in eternity, bodies alive, yet we are also created for spiritual relationships; faith is a source of action and a consequence of action; pride is the fundamental sin, but grace is a key to self-acceptance; God is in control, and we are responsible; we are made in the image of God, and we are finite creatures. These Christian propositions find their counterparts in recent psychological inquiry. Both sets of propositions are the creations of human minds, mere approximations of reality that are subject to revision. Still, the parallels of content and of dialectical form are noteworthy. Because faith always seeks understanding in the language of the day, psychology can perhaps enliven ancient Christian wisdom. Perhaps it can also help us feel more comfortable with the yin and yang of truth. To ask whether it is more true that we are body or spirit, whether faith or action comes first, whether God or we are responsible, whether pride or self-rejection is the problem, or whether we are wise or foolish, is like asking which blade of a pair of scissors is more necessary. Always it is tempting when emphasizing one truth to forget the other. Martin Luther once likened us to the drunkard, who, having fallen off his horse on the right, would then proceed to fall off it on the left. In our time, at least, the cutting edge of truth seems to lie between the yin and the yang.

20. Isaiah 46:9.

21. Isaiah 55:9.

YIN AND YANG IN PSYCHOLOGICAL RESEARCH AND CHRISTIAN BELIEF

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... *in psychological research*

1. Brain and Mind
 - a. Mind emerges from brain.
 - b. Mind controls brain.
2. Attitudes and Behaviour
 - a. Attitudes influence behaviour.
 - b. Attitudes follow behaviour.
3. Self-Serving Bias and Self-Esteem
 - a. Self-serving bias is powerful and perilous.
 - b. High self-esteem & positive thinking pay dividends.
4. Situational and Personal Control
 - a. We are the creatures of our social worlds.
 - b. We are the creators of our social worlds.
5. Rationality and Irrationality
 - a. Our cognitive capacities are awesome.
 - b. To err is human.

... *in Christian belief*

1. Body and Spirit
 - a. We are, now and in eternity, bodies alive.
 - b. We are created for spiritual relationships.
2. Faith and Action
 - a. Faith is a source of action.
 - b. Faith is a consequence of action.
3. Human Pride and Divine Grace
 - a. Pride is the fundamental sin.
 - b. To experience grace is to feel accepted.
4. Divine Sovereignty and Human Responsibility
 - a. God is ultimately in control.
 - b. We are responsible.
5. Divine Image and Finite Creature
 - a. We are made in the image of God.
 - b. We are finite creatures.

Geoffrey Thomas

Lord Shaftesbury

On October 1st 1885, Anthony Ashley Cooper, Seventh Earl of Shaftesbury, died. He was by far the greatest philanthropist of the Nineteenth Century and stands, together with William Wilberforce, at the head of great English philanthropists. G. M. Trevelyan has finely designated him: 'the Wilberforce of the Whites'.¹

Alexander Whyte, speaking of John Knox, states that whenever God would do a great work in the world he first chooses 'a weapon' to accomplish it;² and trains that weapon to become, like Jeremiah, 'a defenced city and an iron pillar'. Young Lord Ashley was God's instrument to champion the cause of the poor and oppressed in nineteenth century England, a role he sustained with conspicuous faithfulness for over fifty years.

I

The Victorian era is a period unique in English history, supremely energetic and optimistic. It was the age of the entrepreneur, steam engine and saw the zenith of Britain's Imperial dominance. Great individuals held the stage; in exploration, Livingstone; in poetry, Tennyson, Arnold and Browning; in novels, Dickens, Thackeray, the Brontes and George Eliot; in preaching, Spurgeon and Liddon; and in Parliament, Peel, Palmerston, Gladstone and Disraeli. It was also a serious age, quite the reverse of the late Eighteenth century with its gay insouciance as typified in the Regency Buck. In most wealthy households family prayers were held and regular church attendance enjoined.³ Wilberforce and his friends, by their Slave Trade and Slavery legislation, had smashed a hole in the wall of laissez-faire and, as Mr. Garth Lean has well said: 'set new tides flowing which affected the climate of British public life for decades'.⁴ Man was his brother's keeper and a plethora of philanthropic societies met at Exeter Hall. But there was one vast and lamentable exception. The labouring

For further reading: John Pollock *Shaftesbury, the poor man's earl*. Hodder and Stoughton, 1985.

1. G. M. Trevelyan, *British History in the Nineteenth Century and After 1782 to 1919*, 68, Longman, Green and Co. Ltd. 1922 and 1937, Pelican Books 1965.

2. G. F. Barbour, *Alexander Whyte*, Hodder & Stoughton, 334, 1923.

3. Ian Bradley, *The Call to Seriousness*, Jonathan Cape, 1976.

4. Garth Lean, *God's Politician*, Darton, Longman and Todd, 170, 1980.

classes had been seduced from the green fields to become cheap labour for the factories and mills and lived lives of unspeakable misery.

The Industrial Revolution had made England the world's greatest industrial power. A small section of the narrow North of England, comprising mainly the counties of Lancashire and Yorkshire, was supplying the world with manufactured goods. Great industrial towns had suddenly come into being and mills and factories proliferated everywhere. Vast wealth was being acquired by the manufacturers; but behind this easy facade, the operatives in mills and factories were subjected to intolerable suffering and oppression. They worked fearfully-long hours in dangerous and squalid conditions. Domestic life ceased to exist; the wife had no role in the home, the children no education. The factory absorbed all their energies and waking hours. In particular, as the result of doing heavy manual labour from a tender age, children's growth was stunted and their physique often deformed or permanently ruined.

This shocking situation is possibly best described by Benjamin Disraeli in one of his greatest novels, *Sybil; or The Two Nations*, which is concerned with the condition of the people. Writing in 1843, Disraeli divided contemporary England into two nations, the rich and the poor. This novel, which Disraeli had thoroughly researched, having listened in Parliament to the Debates on the Factory Acts, studied the Report on the Children's Employment Commission and having spent time in observation in the great northern industrial towns, is generally regarded as one of the best guides to the condition of England at that time. The rich were composed partly of the landed aristocracy, by no means all of whom recognised their obligations to their tenants, some of whom lived in surroundings of great squalor. However, a new class of oppressors had arisen in the land: they were the Yorkshire and Lancashire industrialists who owned the mills and factories and whom, while accruing to themselves great wealth, were subjecting vast numbers of men, women and children who worked for them to lives of utter degradation and unspeakable misery. Save in a few notable exceptions, these men felt no sense of obligation towards their workmen nor assumed any responsibility for their welfare. This was the price England was to pay for her industrial greatness. Lord Morley, a great judge of literature and no friend to Disraeli, has stated that: 'The author of *Sybil* seems to have apprehended the real magnitude and even the nature of the social crisis [brought about by the rapid growth of an industrial population]. Mr. Disraeli's brooding imagination of conception gave him a view of the extent of the social

revolution as a whole, which was wider, if it did not go deeper, than that of any other contemporary observer.⁵ It is interesting to note that it was Disraeli who was Prime Minister of the great Conservative Government of 1874–1880 which placed the coping stone on so much of Shaftesbury's social legislation.

These appalling industrial conditions prevailed in all spheres of labour, perhaps most disgracefully in the pitiless use of boy chimney-sweeps. An able and dedicated champion was urgently required and the leaders of the factory operatives chose young Lord Ashley. They could not have chosen a better man.

II

It was a singular and romantic choice, a young nobleman to lead a working-class movement. Certainly Lord Ashley appeared to have considerable qualifications. The heir to the Sixth Earl of Shaftesbury, having a strong constitution and handsome presence, possessing an excellent intellect which had gained him First Class Honours in Classics at Christchurch, Oxford, industrious, Ashley was a man of total integrity. He already represented Dorset in the Tory interest, was becoming a capable speaker and had held minor office under Lord Ellenborough at the India Board of Control, early demonstrating his strength of character to the annoyance of his flamboyant chief.⁶ Unfortunately, his whole temperament was gravely flawed by lack of confidence, depression and self-distrust. His character was full of contradictions. To designate him a manic-depressive would be far too extreme, though he exhibited some of the traits associated with that condition. His melancholia might be attributable, in some degree but not wholly, to an exceptionally harsh father and an entirely unsympathetic mother. His father was universally known as 'the odious Lord Shaftesbury'.⁷ Young Henry Fox, son of Lord and Lady Holland, referred to him as 'disgusting and meaner than any other wretch in the world'⁸ and of his mother Ashley wrote: 'what a dreadful woman our mother is. Her whole pleasure is in finding fault' and 'away with her memory! The idea of such fiend-warmed Hearts is bad for a Christian.'⁹ Such an influence must greatly have diminished Ashley's self-confidence and self-esteem and might account for the devastating criticisms of people later recorded in his Diary. Gladstone, on reading the Diaries after Shaftesbury's death, had no conception that

5. Monypenny and Buckle, *Life of Disraeli*, 663–664, 1912.

6. C. B. A. M. Finlayson, *The Seventh Earl of Shaftesbury*, Eyre Methuen, 40–41, 1981.

7. *ibid.* 47.

8. *ibid.* 15.

9. *ibid.* 14.

his gracious host held him in such low esteem.¹⁰ Did this indicate a basic lack of confidence? Perhaps Shaftesbury made no allowances for others because none had ever been made to him. The only affection the boy ever knew came from the Methodist housekeeper, Maria Millis, his first Christian teacher.¹¹

Certainly Ashley was not incapable of happiness. He was happy and successful at both Harrow and Oxford and, on walking tours with his young friend Lord Morpeth, could be exuberant; while, at Society Balls, this serious young man was, unconsciously, the breaker of many feminine hearts. Nevertheless, these moods, fluctuating violently between great elation and severe depression, never left him. He was intensely ambitious and deeply grieved when his abilities were not recognised. His initial dislike of Lady Granville, a good friend in early years, quickly changed to warm regard,¹² whilst his early extreme admiration of Sir Robert Peel soon changed to contempt for his expediency—'All Peel's affinities are towards wealth and capital. His heart is always towards the mill owners; his lips occasionally for the operatives'.¹³ This was somewhat harsh to Peel who had genuine sympathy for the operatives but was fearful of the economic results of factory reform and did not like popular movements; but he certainly never appreciated Ashley's great abilities, twice offering him humiliating office. Moreover, Ashley could never distinguish between Peel's impeccable personal honour and his equivocations in public life. Henry Fox went so far as to refer to 'the dash of madness' in Ashley's character,¹⁴ whilst perceptive Florence Nightingale, later a great friend and admirer, said that if Shaftesbury had not taken up the cause of reforming lunatic asylums in early life he would have ended his days in a lunatic asylum.¹⁵ Shrewd Sir Walter Scott, meeting the young Lord Ashley, referred to him as 'an original'.¹⁶

Certainly, Lord Ashley was most fortunate in his marriage. His choice fell upon Lady Emily Cowper, daughter of Lord and Lady Cowper and niece to Lord Melbourne. Superficially, it seemed a strange match, the lady belonging to the cynical, brilliant and worldly Whig family of Lamb—'What has Minnie done to deserve to be linked

10. *ibid.* 604.

11. Georgina Battiscombe, *Shaftesbury. A Biography of the Seventh Earl*, Constable, 5-8, 1974.

12. *ibid.* 15, 26.

13. Barbara Blackburn, *Noble Lord. The Seventh Earl of Shaftesbury*, Home and Van Thal, 78-79, 1949.

14. *loc. cit.* 11, 16.

15. *loc. cit.* 11, 248.

16. *loc. cit.* 11, 14.

to such a fate . . . !¹⁷ asked one Whig uncle. However, the marriage was supremely happy, for the beautiful Emily's sunny disposition softened the severities in Ashley's character and her constant encouragement relieved his depressions. Moreover, his bride's parents gave Ashley at Panshanger the home life he never knew at St. Giles. Later, the widowed Lady Cowper married Lord Palmerston to become the most popular hostess in public life. Gay and worldly though she was, Ashley came to love 'poor, dear, beloved mum'¹⁸ for her kindness. He also entertained the greatest respect and affection for Lord Palmerston whose shrewd worldly wisdom and generous financial support were of inestimable value to him in private life as was Palmerston's straightforward stance in public life. Of all the great Prime Ministers with whom Shaftesbury was associated, Palmerston was easily the most upright and reliable.

If Shaftesbury's morbid disposition required an intensely supportive wife, it also needed abundance of work to survive. He had worked hard at the India Board and was particularly fulfilled as a Commissioner in Lunacy, soon to be appointed Chairman of the Commission, a position he retained virtually to the end of his life, thoroughly mastering the subject and transforming the whole body of laws and administration from a harsh, inefficient system to one of the most enlightened in Europe. But this was not enough; he needed a cause to which he could devote his considerable powers. The Rev. George Bull, acting for the Lancashire and Yorkshire Short Time Committee, asked Ashley to lead the cause of the factory operatives by taking up Michael Sadler's Ten Hour Bill which had been lost at the end of the last Parliament and with it Sadler had lost his seat. Encouraged by his wife, Ashley said that he dared not refuse this request so earnestly pressed, though he made it quite clear that he would not condone the violent methods such as smashing machinery, advocated by Richard Oastler. Thus, he entered upon his career as a philanthropist. It was to shatter his ambitions for a distinguished Parliamentary career.

We note how specific was the nature of Ashley's call. Just as Lady Middleton had invited Wilberforce to Teston to urge on him the cause of Abolition of the Slave Trade, so came Mr. Bull's definite invitation to Ashley,—the last man he approached—to champion the cause of the factory workers. In the case of Wilberforce, we have a man supremely well-balanced psychologically but physically desperately fragile; in Shaftesbury's case, strong physically but gravely flawed psychologically. No doubt both needed the confidence which only a

17. *loc. cit.* 6, 47.

18. *loc. cit.* 6, 504.

clear call from God could give as they faced unrelenting hostility and vilification from all quarters.

Two further brief comparisons with Wilberforce suggest themselves. First, Wilberforce's reputation has suffered by being identified solely with Abolition and little is known of his multifarious labours in other causes. So Shaftesbury's reputation has been diminished by too close an identification with the Factory Acts to the detriment of his other labours. Secondly, Wilberforce had a 'cabinet' of extraordinarily able men to share the burden: Thornton, Grant, Macaulay, Babington were great men by any standards, and his personal friends. Shaftesbury had no such support; he worked alone.

III

What of the nature and extent of Shaftesbury's labours, so prodigious that Cardinal Manning, having read his life, exclaimed: 'What a prospect of work done: it makes me feel that my life has been wasted.'¹⁹ Professor Geoffrey Finlayson has aptly divided Shaftesbury's evangelicalism into three sections—the religious aspect, emphasising justification by faith, reliance on the Bible, missionary endeavour and an uncompromising Protestantism—the moral aspect, deriving from the desire to strive for piety and righteousness in private and public life—and the social aspect, the result of the evangelical impulse towards benevolent and philanthropic activity.²⁰

With regard to religious activities—apart from his devout life which commanded universal respect—we note he was Chairman or President of many evangelical societies, the foremost being the Church Pastoral Aid Society, the British and Foreign Bible Society, the Church Missionary Society and the Society for the Conversion of the Jews. He denounced attempts to introduce Popery into the land, and opposed as dishonest the encroachments of Puseyism into the worship of the Church of England, although he joined with Pusey in attacking modernistic theology from Germany—'neology' he called it. In order to bring religion to the poor, he organised successful services in theatres, co-operated with evangelical Non-conformists, advised Palmerston on filling vacant Anglican Bishoprics. He also introduced Bills to regulate Uniformity of Worship and to reform Church Courts, neither of which reached the Statute Book; but, with the assistance of Lord Cairns, a great Christian Lord Chancellor, he helped to strengthen and secure the passage of Archbishop Tait's

19. *loc. cit.* 13, 240.

20. *loc. cit.* 6, 50.

Public Worship Regulation Bill, designed to put a stop to ritualistic practices, and which became law in 1874.

Regarding moral issues, Shaftesbury believed that 'righteousness exalteth a nation', and, like Wilberforce, became the conscience of the nation. Geoffrey Best states: 'He had a burning desire for righteousness and justice in the conduct of international affairs.'²¹ He vehemently opposed Britain's participation in the Opium Trade, one of the blackest pages in English history, and launched a scathing indictment on Peel's Government for its 'insolent and despotic treatment of the Ameers of Scind',²² this when British Imperialism was at its height. He considered that the perpetrators of the Indian Mutiny should be swiftly brought to justice to secure a peaceful and just regime in which Christianity could flourish. His views on India were well in advance of his time.

His immense social activities took place both inside and outside Parliament. With regard to Parliament, we select the Factory Acts 1833 and 1847, the latter establishing the Ten Hour day. Also important, is his setting up in 1840 of the Royal Commission on Children's Employment, whose Report in 1842 so shocked the nation that a Mines Act was passed the same year, a triumph regarded by J. L. and Barbara Hammond as 'the most striking of Ashley's personal achievements'.²³ His Common Lodging Houses Acts 1851 and 1857 drew attention to the indescribably foul conditions prevailing in London's common lodging houses and effectively cleaned them up. Nor did the agony of boy chimney-sweeps escape his vigilance though it took many years and several deaths before effective legislation abolished this disgraceful traffic. His work at the General Board of Health, under the Chairmanship of his old friend Lord Morpeth and as a colleague of Edwin Chadwick, the great public health reformer and Dr. Southwood Smith, in the realm of public health was most effective and, but for administrative frustrations, would have been even greater. It is not widely known that it was Shaftesbury's idea to send out a Sanitary Commission to Scutari to deal with the disease and death which ravaged the army in the Crimea, and he successfully urged Panmure, the Secretary of State for War, to appoint one. Shaftesbury defined the Commission's powers and drew up its instructions and a hospital was set up at Scutari. The death rate was dramatically reduced and 'in Florence Nightingale's opinion it saved the British Army'.²⁴

21. G. F. A Best, *Shaftesbury*, Batsford, 75, 1964.

22. *ibid.* 75.

23. *loc. cit.* 11, 145.

24. *loc. cit.* 11, 247-248; *loc. cit.* 13, 181-182.

From a multitude of activities outside Parliament we select Shaftesbury's work for Ragged Schools. Since juvenile delinquency was the direct result of foul homes and negligent parents, Shaftesbury, with the devoted assistance of London City Missionaries, instituted highly successful schools which instructed boys and girls, thus keeping them off the streets and fitted them for useful work. Especially impressive was his scheme whereby promising youngsters could emigrate to the Colonies and there find work. Shaftesbury would bid them farewell at the Deptford docks saying: 'Remember the faces of those who are here present tonight'²⁵ and he followed their careers with interest. Another considerable achievement was his formation of the Labourers Friend Society, of which he invited Prince Albert to be President and which was afterwards known as the Society for Improving the Condition of the Labouring Classes; its aim and achievement was to provide model homes for the working classes, the first steps ever made in that direction.

IV

What are the qualities which we hail in Shaftesbury and which account for his marvellously useful life?

First, there was his faith in God and commitment to the causes he espoused.

Shaftesbury had faith not only in God but in the rightness of his causes. He believed that God had prescribed his tasks for him: thus, he could not relinquish them at will but, as a faithful steward, would have to render an account of his stewardship. This accounted for his total commitment, the dedicated persistence of this morbid, sensitive man. His time and talents were held upon trust for use to the Glory of God in making the lives of the poor and oppressed more endurable; and the life of the nation purer.

This conception of trusteeship had a peculiar aspect relevant to Shaftesbury's position in life. As a premier nobleman he possessed great advantages, not to be selfishly enjoyed but to be used for the good of less fortunate people. 'To whom much was given, much was expected'.

His paternalism sprang from responsibility resulting from privilege. It is significant that he chose for his tombstone the text: 'What hast thou that thou didst not receive'; and his philanthropy had two facets. Positively, by philanthropic labours he justified his hereditary rank in society. Negatively, he was preserving such rank against the rapidly

25. *loc. cit.* 11, 205-206.

encroaching tides of democracy, especially since Disraeli's Reform Act 1867 had given the vote to householders, a phenomenon viewed by Shaftesbury with the gravest mistrust. These principles further explain why a poor man, with a substantial estate to maintain, a large family to launch and many charitable obligations, sold valuable pictures to provide better cottages and schools for his tenants, and they refute the bitter gibes of John Bright who asserted that, although Shaftesbury cared greatly for the cotton operatives of Lancashire, he cared nothing for his tenants at St. Giles.

Answerable to God, and seeking only His approval, another text, later inscribed on his tombstone, held Shaftesbury on course: 'Surely I come quickly. Amen. Even so come Lord Jesus.' Shaftesbury earnestly looked forward to the Second Coming. It acted as a comfort in adversity and as a stimulus to action. He would have said with John Calvin: 'Would you wish the Lord to find me not at work if he came?'²⁶

Secondly, there was his enormous energy and his complete identification of himself with his causes.

Shaftesbury was certainly a man of great natural gifts, having a first-class intellect, fine presence and vast powers of concentration. So severe a judge as Lord Salisbury considered him one of the best orators in Parliament. But it was not so much his gifts as the use which he made of them that is so significant. Enormously scrupulous in his use of time, Shaftesbury directed his energies so that they always flowed along positive and useful channels. Lord Rosebery's remarks concerning Gladstone are equally apposite to Shaftesbury: 'He did not know what it was to saunter; he debited himself with every minute of his time; he combined with the highest intellectual powers the faculty of using them to the fullest extent by intense application.'²⁷ Moreover, he possessed, like Lloyd George, the ability to switch his mind from one sphere of activity to another, and thus was able to combine with a strenuous Parliamentary career a number of religious and philanthropic causes. He could proceed from the promotion of a Bill in Parliament to a Meeting of a Ragged Schools Committee, from advising Palmerston on a suitable candidate for a vacant bishopric to denouncing the Sunday post or the Opium War.

Shaftesbury never spared himself. In his early days, when he had first taken up the cause of the factory operatives, Robert Southey, the exponent of Tory paternalism, who had done so much to strengthen the sense of duty in the young Lord Ashley,²⁸ advised him not to

26. C. H. Irwin, *John Calvin: the Man and his Work*, 1909.

27. *Miscellanies, Literary and Historical*. Lord Rosebery, Vol. 1, Hodder and Stoughton, 259, 1921.

28. *loc. cit.* 6, 74-76.

inspect the factories personally, feeling that the experience would demoralise so sensitive a man. Shaftesbury took no notice. He visited factories, went down mines and knew the lodging houses and every street in the stenching, squalid slums in London. Thus, the accuracy of his facts could never be successfully challenged.

No man ever identified himself more closely with his causes. During holidays abroad with his wife and children, his thoughts constantly reverted to his work. On a hot day in a fashionable continental spa, he thought of the misery such heat would inflict upon the poor in the London slums. He would inspect a lunatic asylum in a foreign town or inquire into the public health position. Totally dedicated to the poor and oppressed, Shaftesbury even dreamed about them as Wilberforce had dreamed about the negro slaves.

Of course he had his detractors. Geoffrey Best mentions some examples, namely 'the Socialists who appreciated his concern with environment but jibbed at his aristocratic paternalism and fundamental pessimism—the doctrinaire individualists who appreciated his self-sacrifice but doubted whether he was tough enough when dealing with the poor'.²⁹ Some thought he was not sufficiently businesslike and his world of cripples, lunatics and shoe-blacks emotionally self-indulgent. There may be some truth in the fact that 'the ragged-school mothers tea-meeting in Lambeth or the special service in a Hoxton music hall, the farewell to his emigrant boys and girls at Deptford, brought the tear to his eye a little quicker than they need have done, but was it self-indulgent, emotionally or physically, in an old man to leave his fireside night after night no matter what weather to jog across London in a cab to where his sense of duty called him? It is not clear that self-indulgence outweighed self-discipline'.³⁰

Certainly, there was nothing emotionally self-indulgent about Shaftesbury's work at the Board of Health. Moreover, when his changed attitude to the Corn Laws compelled Ashley to resign his Dorset seat in Parliament, he believed he would be entirely happy in his purely social work, e.g. Ragged Schools. This type of work appealed to the 'monk' side of his character. But it was not so. He was very glad soon to be re-elected to Parliament, this time for Bath; and, moreover, realised the necessity of being at the centre of legislative power in order to advance his philanthropic causes, an advantage possessed by few of his colleagues in social work.

In order properly to estimate the extent of Shaftesbury's dedication, we must consider what he gave up. Supremely, there was his

29. *loc. cit.* 21, 116.

30. *loc. cit.* 21, 117.

ambition to be a great statesman. When Peel's great Government came into power in 1841, Ashley's commitment to the Ten Hour Bill compelled him to refuse office in it. He said: 'I have taken that course which will exclude me for ever in the official government of the kingdom. There were "paths of honour" and there were paths of "no gain and humility".'³¹ Although subsequently offered a place in Tory Governments by Lord Derby and Whig Governments by Lord Palmerston, Shaftesbury, despite a struggle, always refused. He gave up the pleasant life of a premier nobleman in England and never enjoyed the friendship of his fellow peers either in or out of Parliament. He was never a popular man. Perhaps it was his stern evangelicalism and fidelity to his causes or possibly his rather austere demeanour that did not encourage approach. It could never be said of Shaftesbury as it was of Wilberforce: 'When he entered a room every face would turn towards him with pleasure.'³² Certainly, as we have seen, he never had friends of his own intellect and social standing as Wilberforce had in the Clapham Sect and it is sad to read that, when Minny and daughter Constance were both dying, it was to W. J. Orsman, the leader of the costermongers, that he turned, asking for the help of the costermongers in prayer? Bickersteth was a good friend in early middle life, and, in later life, Shaftesbury formed two splendid friendships, with the great Baptist preacher C. H. Spurgeon and the Liberal statesman, W. E. Forster. But, especially after his wife's death, Shaftesbury's was a lonely life.

Again, this fine classical scholar—his Diaries abound in classical allusions—and lover of astronomy, sacrificed his love of scholarship. He virtually never read a book and could never afford to buy one. Would the tensions have been relieved had he, like Wilberforce, turned to Cowper or Walter Scott, albeit with a slight unease? And finally, in a bitter moment, when many of the operatives turned on their champion, quite wrongly I think, Shaftesbury said: 'I have sacrificed to them almost everything that a public man holds dear, and now I have concluded by giving them that which I prize most of all—I have sacrificed to them my reputation.'³³

Thirdly, we note Shaftesbury's persistence and courage. Indeed, one is tempted to regard these as his supreme qualities, for without them nothing would have been accomplished. None of his causes succeeded easily. Every one involved a fight every inch of the way. Was it Factory legislation? He would address a cold indifferent House and face the bitter hostility of John Bright. Was it a Mines Bill? There

31. *loc. cit.* 6, 150.

32. *loc. cit.* 4, 113-114.

33. *loc. cit.* 13, 140.

would be the ruthless antagonism and duplicity of the mine-owners' lobby and equivocation from his own Party leaders, for Peel and Graham never felt able to give him the solid support for his factory and mines legislation which Shaftesbury rightly felt such matters of national conscience demanded.³⁴ Furthermore, when the Bill has safely passed through the Commons, heavily amended, it must needs be further emasculated by the House of Lords before it receives the Royal Assent. Then he must watch lest some fresh Bill be introduced, attempting to amend or repeal it; and then, at the right time, introduce another Bill to give fuller effect to the original intentions. It was always a case of two steps forward and one step back, try again and never lose heart. Some Bills, such as those relating to boy chimney-sweeps, took half a century to pass before the mischief was finally abolished; others never reached the Statute Book at all.

Only indomitable persistence on Shaftesbury's part enabled him to achieve the success he did. Dr. Runcie, in his address in Westminster Abbey (Oct. 1985), in an apt analogy, likened Shaftesbury to a boxer taking terrible punishment, but always coming up round after round for more until his exhausted opponent was compelled to abandon the fight.

Shaftesbury's whole life was a display of courage. We have noticed his denunciation of aggressive imperialism. Even more striking are some examples of his courage in domestic affairs. As regards physical courage, Shaftesbury, when a member of the Board of Health, worked virtually alone in London during the terrible cholera epidemic of 1849; and, even more conspicuous, is the moral courage he displayed in his opposition, both in private and in Parliament, to the assumption by Queen Victoria of the title 'Empress of India', thus incurring the wrath of the Queen and Lord Beaconsfield. Perhaps, the most impressive example is his address to the Agricultural Society at Sturminster Newton when, in the most forceful terms and to the fury of his father, he told his audience of landlords and farmers that the County of Dorset was within an ace of becoming a byword of poverty and oppression.³⁵ Popularity never weighed heavily in Shaftesbury's scales.

Let it be noted however, as a balance, that with all his courageous commitment, Shaftesbury was always judicial and prepared to entertain compromise, provided it did not impair his basic principle, as for example his acceptance of the addition of an extra half-hour on the ten-hour working day when this detriment was outweighed by

34. *loc. cit.* 21, 92-105.

35. *loc. cit.* 11, 168.

other more favourable terms in the Bill. Especially impressive is his advice to his fellow-Peers when confronted with a measure of which they disapproved, but which had reached the House of Lords having received an overwhelming majority in the House of Commons. Shaftesbury argued that it was wrong for the Upper House summarily to reject a measure so passed by the Government of an Assembly duly elected by the people. Such a statesmanlike approach would have saved the House of Lords a generation later from its humiliating capitulation to Asquith's Government culminating in the Parliament Act of 1911.

Finally we note Shaftesbury's compassion and esteem of human nature as such, similar to that entertained by Wordsworth; for, although austere in bearing, he was a man of great practical compassion. As a very young man, he had been concerned that his sisters should make good marriages despite the disadvantages imposed by their home; a concern for others that steadily broadened. Sir James Stephen's noble words concerning Whitefield can justly be applied to Shaftesbury. 'If ever philanthropy burned in the human heart with a pure and intense flame embracing the whole family of man in the spirit of universal charity it was in the heart of Whitefield . . . he had no preferences but in favour of the ignorant, the miserable and the poor.'³⁶

And, more particularly and beyond pity, Shaftesbury esteemed man as created in God's image and for His glory; thus it was morally wrong that he should live a degraded existence. As President of the Section on Sanitary Improvement at Liverpool Congress in 1858 he said that: 'Society must do all it could to remove difficulties and impediments; to give to every man . . . full, fair and free opportunity so to exercise all his moral, intellectual, physical and spiritual energies, that he may, without let or hindrance, be able to do his duty in that state of life in which it has pleased God to call him.'³⁷ He was especially anxious that working women should have time to fulfil their domestic duties.

Moreover, in his great speech in 1843, when moving an Address in the House of Commons 'praying Her Majesty to take into consideration "the best means of diffusing the benefits and blessings of a moral and religious education amongst the working classes", he called on Parliament to discharge its responsibilities to the poor and to "seek

36. Sir James Stephen, *Essays in Ecclesiastical Biography*, Quoted by Dr. A. D. Belden on Title Page of *George Whitefield the Awakener*.

37. *Speeches of the Seventh Earl of Shaftesbury*, p. 308. Quoted by G. B. A. M. Finlayson *loc. cit.* 6, 410.

their temporal through their eternal welfare"; there were, he said "many hearts to be won, many minds to be instructed and many souls to be saved".³⁸ Such was Shaftesbury's reverence for human nature.

V

Shaftesbury believed in philanthropic societies and belonged to many; but these were not enough. The oppression of the labouring population constituted such a manifest disgrace that it called for action from Parliament. He was in a unique position both to influence public opinion and to introduce legislation and he laboured in both spheres. Peel might strive for economic prosperity, and both Parties compete with each other for political liberty—three Reform Bills were passed within fifty-three years—but Shaftesbury, virtually alone, stood for social justice and freedom. It was morally wrong for men and women to work twelve hours a day. Man was more than an economic unit. Incidentally, when the Ten Hour Bill was passed, the extra two hours off the site made no difference to production despite all the gloomy prognostications; the workmen produced better work. Thus, he forced through Parliament a series of Bills which materially improved the lot of the poor and oppressed.

And, as the Victorian era wore on, Shaftesbury lived to witness the Government of the day assuming responsibility to improve upon his earlier legislation; especially the great Disraeli ministry of 1874 to 1880. He who had laboured so hard at the Board of Health saw the passing of the great Public Health Act 1875. The founder of the Labourers' Friend Society to provide model dwellings for the working classes saw the consummation of his labours embodied in the Artisans Dwellings Act 1875; especially he witnessed 'with unbounded satisfaction', the passing of the great consolidating Factory and Workshop Act 1878.

His last days were not entirely happy. He was seldom consulted on this new legislation and felt he had been given notice to quit. Typically, he said: 'I am like a great rock from which the sea has receded.' He also feared that Forster's Education Act of 1870 would mean the end of the Ragged Schools; and that excessive State intervention on behalf of the poor might be abused and militate against the Victorian doctrine of self-help. Always liable to melancholia, he greatly missed Minnie, though he was at times exalted by the thought of the glorious company who had gone before and

38. Hansard Parliamentary Debates, 3rd Series, LXVII 47 to 75. Quoted by G. B. A. M. Finlayson *loc. cit.* 6, 190.

awaited him in heaven. But when he died there was no doubt what people thought of him as the Nation showed its heart for once as he had shown his for years. On the day of his Memorial Service in the Abbey the streets, despite the drizzle, were thronged with weeping people whilst processions representing some of his societies marched carrying banners: 'Naked and Ye Clothed Me', 'A Stranger and Ye Took Me In'; and Gladstone composed a fine inscription on the Eros Monument:

'During a public life of half a century
he devoted the influence of his station,
the strong sympathies of his heart,
and the great powers of his mind,
to honouring God
by serving his fellow-men,
an example to his order,
a blessing to this people,
and a name to be by them, ever
gratefully remembered.'

VI

What has Lord Shaftesbury to say to us today?

First, he would denounce the godlessness of the nation and attribute all the present lawlessness to its turning its back on God. Certainly, he who opposed the opening of places of entertainment on Sundays, despite the prejudice this would occasion to his beloved labouring classes, arguing that they should be allowed a half-day on Saturday for recreation, would have denounced, both in Parliament and outside it, the recent godless Bill relating to Sunday Trading and would have boldly asserted that what was morally wrong could not be economically right. He would have been appalled that such a Bill should have been initiated by the Tory Party, traditionally the Party of the Established Church and guardian of the Constitution, and that with a three-line Whip, and would have rejoiced at the summary rejection of a measure so hostile, not only to the Law of God but, in consequence, to the physical, moral and spiritual health of the Nation.

Secondly, although he would have welcomed the present good-feeling and co-operation between Anglicans and Free Churchmen, the voice which vigorously denounced the attempt of the Pope and Cardinal Manning to create a Roman hierarchy in England based upon territories would have been heard in uncompromising protest against the recent visit of the Pope to England, especially his presence in the Cathedral of Bishop J. C. Ryle.

Thirdly, he would, I believe, have welcomed the present welfare state, with the reservation that its benefits must never be permitted to derogate from man's essential responsibility to provide, so far as possible, for himself, nor should it exempt man from a compassionate and practical concern for his family and his fellows.

And, finally, I have no doubt, he would urge us courageously to attack any evil in the body politic and to persist and continue to persist until it had been excised. He would not care whom he might offend or what opposition he might meet: only that he might be found worthy at His Master's coming.

Mrs. Battiscombe best summarises Shaftesbury's life and achievement: 'Both by temperament and by circumstance he seemed destined at best to a small success, at worst to complete failure. No man has in fact ever done more to lessen the extent of human misery or to add to the sum total of human happiness.'³⁹

39. *loc. cit.* 11 334.

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John Halliburton, *The Authority of a Bishop*, SPCK, 1987. 104pp. Paperback. £3.95

When the Methodist Church was looking towards union with the Church of England it had, inevitably, to give much thought to the question of episcopacy. Interestingly, some of the bishops of the Anglican Communion urged us to come up with bishops 'different from the sort we have become'. This kind of exhortation betokened a certain degree of dissatisfaction with the episcopal office within the Established Church. It also suggested that there are various ways of interpreting the role of a bishop.

John Halliburton's scholarly treatise looks carefully at the development of episcopacy in the church from earliest times to the present day and the emergence of the General Synod. There are two interesting additional notes about the origins of the episcopate and the question of the ordination of women as priests.

The author recognizes that central to the bishop's task is the guardianship of the faith. At a time when doctrinal uncertainty—some of it provoked by episcopal utterances—seems widespread, it is important to re-examine this aspect of the bishop's task. There are suggestions about ways in which the bishops might be freed so that their voice is not 'muffled by a web of bureaucracy'.

At the heart of the modern debate about the way to Christian unity is the question of authority within the church. Mr Halliburton rightly sets his theme within the ecumenical context. In two successive chapters he deals with bishops and the non-episcopal churches, and the Roman Catholic Church. This reviewer read with some surprise that 'the Anglican-Methodist Scheme, in progress since the late 1940s, failed to sustain the confidence of either Anglicans or Methodists and was abandoned in 1970'. The fact is, of course, that the Scheme was abandoned because of the failure of the Anglicans to achieve a sufficiently large majority in favour in the General Synod. Moreover, the date was 1972, not 1970.

The chapter from which this quotation comes sets out suggestions about how a united church might come into being. Given fundamental agreement on matters of faith and a desire to work together, Anglican bishops would ordain other bishops chosen from among the ministers of the Free Churches. The bishops would then authorise ministers to exercise pastoral care and oversight of specific parishes. The proposed method of authorisation is the laying on of hands. It is true, as Mr Halliburton says, that this sign is used for many different purposes. It has, however, within the context of unity discussions, been seen pre-eminently as a sign of ordination. One wonders

whether the author is really aware of the depth of feelings among some Free Churchmen resulting from the experiences of the past thirty years. It is important that these should be recognised and understood.

That having been said, this book is well worth the careful attention of all who care about the church and look for faithfulness to the gospel within a truly united body.

K. G. GREET

Martin Thornton, *A Joyful Heart*, Lenten Meditations, SPCK, 1987. 76pp. Paperback. £2.95

This would be a good book for Holy Week. There is a Preface—for Pancake Day, it says—but that is simply to set out the purpose of the book: 'to stimulate meditative insight into the great mysteries of the faith' and 'thus to help deepen and expand the reader's life of prayer.' Prayer is 'the working out of our total, continuous, unbreakable relation with God in Christ' and 'not an exercise we occasionally perform but a response to a status in which we are.' The Preface is followed by ten superb meditations, three of which are post-Easter summaries, and a Finale.

A meditation on the peculiar habits of the woodlouse leads into a beautiful contemplation of the blessed Trinity (and led me into wonder and adoration). A girl in Truro Cathedral who took off her beachrobe because it was hot and sat there in her bikini is the starting point for an understanding of the incarnate Word, naked on the Cross, and of our only adequate approach being without pretence, naked and prostrate. Christian Cricket leads on to a delightful Nightmare Interlude in which there are magnificent swipes at churchiness and at Vicars who see their congregations as theological twits.

The Finale is on the priority of prayer—for the inner city, the Church Council and even the General Synod, with the creative and utterly unfacetious suggestion that every other session might be conducted in complete silence, with a sheet of paper in front of every member. 'For how can one speak seriously about the guidance of the Holy Spirit if He is never listened to?' This book will help us to do just that, and its profound spiritual insights are of a rare depth.

SHELAGH BROWN

J. I. Packer & others, *Here We Stand. Justification by Faith Today*, Hodder & Stoughton, 1986. 189pp. Paperback. £5.95

Oak Hill Theological College have chosen to celebrate their golden jubilee by publishing a collection of essays on the theme of justification by faith. The authors are all past or present members of the Oak Hill faculty, with the exception of James Atkinson who was an external examiner. Altogether they have succeeded in putting together a very useful collection of essays.

It is interesting how the doctrine of justification is again receiving attention after a considerable period of relative neglect. In addition to the present volume, a flood of articles relating to the topic has emanated from the pen of Alister McGrath of Wycliffe Hall, culminating in his two-volume *Iustitia Dei. A History of the Christian Doctrine of Justification* (CUP, 1986).

The first two essays, by Mike Butterworth and Steve Motyer, consider the Old and New Testaments respectively. The former finds clear teaching on justification by faith in the O.T. 'No one is fit to come into a relationship with God, and all without exception must depend on his grace whereby he takes the initiative. . . . He accepts those who hear a message as from him and respond in faith and obedience.' Steve Motyer correctly notes the basic tension with which all doctrines of justification have to wrestle—between the fact that no one is righteous before God and the fact that God's people are those who are 'righteous' as distinct from 'sinners'. He approaches this by examining the N.T. doctrine of *righteousness*, rather than justification as such. He presents a perspective which seeks to escape from the stark contrast between justification and sanctification found in traditional Protestant theology. There is much food for thought in this chapter.

By contrast the next two chapters are statements of the traditional Protestant doctrine. Jim Packer's *Justification in Protestant Theology* presents a synthesis of Reformation teaching. This makes for a lively presentation, though with the drawback that the more subtle differences between Calvin and Luther, say, are lost. The 'Roman' position to which this is opposed is very much that of the Counter-Reformation. James Atkinson, in his *Justification by Faith: A Truth for Our Times*, also restates the traditional doctrine, with extensive application to today.

Gerald Bray and George Carey relate the doctrine to the two great non-Protestant traditions: Eastern Orthodoxy and Roman Catholicism, respectively. Gerald Bray is to be congratulated for helpfully assembling a body of material with which most Protestants are unfamiliar. He expounds the response to the *Augsburg Confession* by the patriarch Jeremias II in 1576, the *Eastern Confession of the Christian Faith* produced by the 'Calvinist' patriarch Cyril I Lucaris in

1629, and the later response found in the 1672 *Confession of Dositheus*. George Carey assesses the rapprochement between the Protestant and Catholic positions pioneered by Hans Küng. In opposition to Alister McGrath he argues that the differences have largely been overcome. However, like Küng himself, he achieves this by overlooking the issue of post-baptismal sin and the need for satisfaction for such sin. It can be said that Trent presents a largely biblical doctrine of justification by faith, but that this is all referred to baptism, an event which precedes the conscious experience of the majority of Catholics. Once one enters the world of post-baptismal sin, one has left justification by faith behind and entered a world of satisfactions, penances, indulgences, etc. Küng points to the real overlap between Protestant and R.C. teaching in the former area (justification by faith) but overlooks the latter area (post-baptismal sin).

Finally, David Wheaton contributes two practical essays on *The Justified Minister at Work* and *Liturgy for the Justified*. These are both helpful applications of the doctrine in their respective areas.

Oak Hill are to be congratulated for what is an interesting and stimulating volume.

TONY LANE

Albert M. Wolters, *Creation Regained*, IVP, 1985. 98pp. Paperback. £3.95

The book is subtitled 'A transforming view of the world' and is an attempt to rescue Christianity from the false dichotomy between sacred and secular that has persisted in many churches for so long. The worldview or confessional vision (*Weltanschauung*—as he prefers to call it) has its roots in Irenaeus, Augustine and the reformers and its modern advocates among some Dutch theologians.

Wolters expounds the doctrines of creation, fall and redemption, showing how they illuminate this perspective. God's creating is seen both in the non-human realm as well as in human affairs for which He has established norms that we ought to follow. We must, he says, 'try to discern, through empirical study and historical experience, what God's specific norm is for areas of human life that the Scriptures do not specifically address—industrial relations, for example, or the mass media, or literary criticism.'

The author believes the fall affected all creation including societal functions but did not eliminate creation's essential goodness which man can direct either towards or away from God. He uses the analogy of a child who in infancy contracts a serious disease which stunts

growth and wastes the body, but who is healed in later life. Redemption is like this. Salvation is an all inclusive restoration, a progressive thing rather than a return to a pristine Eden. Adapting Cullmann he says we live between the D-day of Jesus' death and resurrection and the V-day of his second advent, assured of victory but still fighting a fierce battle. It is the conduct of this particular battle that is his main concern.

The final and most challenging section of the book is concerned with how these insights can be put into practice. Wolters says that this can be done by discerning structure and direction in the social order. The structure is the essence as originally created and the direction is the sinful deviation from the divine norm which can be redeemed and renewed. He gives various examples of how this can be done which include sexuality and dance, two areas often designated as 'worldly'. Neither is wrong in itself although both can be corrupted—sexuality by being seen as an end in itself and dance by its association with drink, hypnotic lighting and sexual stimulation. Both can be redeemed by asking what is God's creational norm and how can this be worked out. Because bodily movement, music and social interaction are good, dance can be redeemed and used as a means of worshipping God.

This book gives a refreshing new approach to both biblical interpretation and christian ethics. It provides a stimulus to make one's faith relevant to all aspects of living, and should encourage positive evangelism by bringing Christ into the world rather than, as so often happens, by making the convert renounce the world in order to come to Christ.

R. S. LUHMAN

Keith Ward, *The Turn of the Tide—Christian Belief in Britain Today*, BBC Publications, 1986. 176pp. Paperback. £3.50

This book is a considerable expansion of the BBC Radio 4 series of the same name which first appeared in the spring of 1986. Although the title aptly expresses Professor Ward's main contention that in a number of quarters there has been a positive shift in peoples' assessment of the Christian faith in recent years, the sub-title 'Christian Belief in Britain Today' is slightly misleading, for what this volume is primarily about is the intellectual standing of the faith amongst scientists, philosophers, moralists and theologians in many of our leading universities.

Having set the scene by examining religious trends in Britain over the last 20–30 years, together with some of the underlying causes (not least the influence of the Enlightenment), Professor Ward embarks

upon a fascinating *tour de force* of the disciplines which are popularly perceived as being at odds with orthodox Christian belief, including theology!

Beginning with science, Ward calls his 'expert witnesses' (p. 8) to testify. While Richard Dawkins may be continuing a crusade to replace belief in God with Darwin's theory of natural selection, it appears very much as a lone attempt, as other leading scientists in the fields of biology, physics and mathematics contend for a coherent and consistent harmony between their Christian faith and their scientific endeavours. Whatever conflict there may have been in the past between science and Christianity (and much of this was more apparent than real) what we have today is very much a 'phantom battle' according to Keith Ward. I am sure that many of the V.I's members would heartily concur with Professor Ward's claim that, 'When properly understood, the scientific world-view both springs from and leads back to a religious world view' (p. 54). Indeed, Ward underscores that which many, such as Professor Donald MacKay, have been advocating for years, namely that we 'need many complementary ways of speaking to give us an adequate view of how the world really is' (p. 56).

Moving from science to philosophy, Professor Ward brings us up-to-date with the state of play in this ever-changing discipline. Long gone are the days when metaphysics was a 'no-go area' in philosophy and the word 'God' was rendered 'meaningless' by the notorious verification principle. Now due to the work of men like Richard Swinburne, Dewi Philipps, Michael Dummett (Ayer's successor), Anthony Kenny and others, both metaphysics and religion are attracting considerable attention and generating a fair amount of philosophical discussion. Similar findings are made in the areas of ethics and theology, and the signs are that, far from being on the periphery, traditional Christian beliefs lie very close to the centre of the academic scene and are being pursued with renewed vigour and confidence.

In the last two chapters Professor Ward focuses upon two topics which were not dealt with in the original radio series, namely Christianity's relations with other religions and with politics. His treatment of how we should conceive of Christianity's relationship with other faiths is most disappointing. While eschewing syncretism on the one hand, and exhibiting great caution towards pluralism on the other, Ward adopts a position which is very close to the latter, one 'in which each tradition can grow by encounter with and, so far as may be, love of, others in which we do not seek to condemn or convert those committed to another religious path, but grow

alongside them, and value our diversity' (p. 152). It is not difficult to see why Ward comes to this conclusion for it is but the logical outworking of a faulty, Pelagian view of salvation with its emphasis upon works, thus: 'All people can be saved by God's grace *and* (my italics) their own search for truth' (p. 143) and '... you will be judged by how seriously you have sought the truth; but you will not be judged on whether you have actually found it or not' (p.143). Whatever Professor Ward's intentions to outline an approach which accords with traditional Christian faith, he surely fails at this point, putting forward a scheme which ill-accords with the Biblical emphasis upon the uniqueness of Christ's person and work which is the animating principle of the missionary enterprise Christ himself commissioned.

The final chapter on Christianity and politics is much more successful, as it remains true to the Scriptural tension of the 'now and not yet' and thus avoids the two temptations to see the kingdom either as 'all now' or 'all future'. Consequently Professor Ward works out a balanced and practical challenge to Christians and the Church in their call to be both salt and light in the world, which means taking seriously the prophetic role which is greatly needed today.

This is a thoughtful and welcomed book and should do much to offset some of the pessimism and defensiveness which some Christians might feel as they engage in their academic pursuits—the tide is indeed turning.

MELVIN TINKER

Clark H. Pinnock, *The Scripture Principle*, Hodder & Stoughton, 1985. xx+264pp. Paperback. £6.95

By 'the Scripture principle' Clark Pinnock means the traditional Christian view that the Scriptures of both Old and New Testaments are (and do not merely contain) the Word of God; and are therefore in their entirety authoritative for believers of all periods. During the last two centuries this view has been challenged by liberal theologians, who maintain that the Scriptures are merely the records of human experience, and are revelatory to us only in so far as they produce an echo in our experience. Where modern enlightened man is out of sympathy with the content of Scripture he is at liberty to reject it, at least as propositional revelation. Conservative evangelicals have reacted strongly to such liberalism, and, in order to maintain the traditional view, have often made claims for Scripture that go beyond what Scripture claims for itself. The argument goes: if the Bible is divinely inspired, it *must* be free from mistakes, completely accurate,

infallible, inerrant, and so on. These concepts have proved to be notoriously difficult to define; and have been extensively debated amongst evangelicals themselves. Pinnock argues that the concepts are just as rationalistic as are the presuppositions of the liberals. Who are we to decide what form God's revelation *must* take or what literary styles He *must* inspire?

To those who have grown somewhat wearied by the current infallibility/inerrancy debate this book will come as a breath of fresh air: but it will probably please neither the liberals nor the traditional evangelicals. Nevertheless it does represent a stance that is adopted in practice by very many thinking evangelicals today. Pinnock accepts the *valid* insights of both liberals and conservatives, and from them produces a self-consistent view of scriptural authority that does justice to both the human and the divine elements in Scripture.

Apart from a short introduction and an even shorter conclusion, the book is divided into three major sections. The first deals with Scripture as the Word of God; and examines the nature of revelation, inspiration, and authority, in the light of the Bible's own witness. The second takes up the humanity of the Bible, and the importance of this aspect in divine revelation; and discusses the value and the dangers of biblical criticism. Pinnock welcomes critical studies, provided they are pursued on a sound historical and literary basis, and in an attitude of faith. The third section treats of the importance of the Holy Spirit's work in man's recognition, interpretation, and application of Scripture. This, to my mind, is the most valuable part of the book. It sets out the relation between the impact of the words of Scripture and the influence of the Spirit, to both of which we have to be open and obedient. The treatment of this interaction is stimulating, sometimes controversial, but always balanced.

The book should appeal to any thinking Christian who desires to understand the authority of the Bible, and the exegetical and hermeneutic approaches to it that enable it to speak to us today. It could also further the *rapprochement* that is undoubtedly taking place between the liberal and the evangelical wings of modern theology.

GORDON E. BARNES

Francis B. Drohan, *Jesus Who? The Greatest Mystery Never Told*, New York, Philosophical Library, 1985. xiii+256pp. Hardback. \$15.00

The principal thesis of this bizarre book is that there is a direct line of influence that can be traced through many centuries from Egypt

through the Kenite tribe to the Essenes and Jesus. The main features of this line of influence are an insistence on strict monotheism, a belief in judgement, heaven and resurrection, the practice of circumcision and of rites of water purification, an interest in the healing arts, and a particular style of worship with its own priesthood, cultic calendar, devotion to the sun, and refusal to participate in blood sacrifices.

At the end of this line of tradition, Jesus was born to Mary, a virgin with whom Joseph, an Essene monk, had had intercourse; in keeping with the marriage contract Jesus was sent to the monks at Qumran at the age of ten. There he learnt Essene practices and beliefs, many of which are echoed in the Gospels. Inspired by John the Baptist who was an Essene who had gone public and so been rejected by his fellow Essenes, Jesus also decided to take the Essene understanding of Judaism to a wider Jewish audience. His message of repentance and salvation appealed to many, but the Romans took his activity in Jerusalem to be that of an insurrectionist and Pilate had him crucified on the ridiculous charge of being an imposter king. Jesus's political naïvety can be attributed to his cloistered Essene upbringing. As for the resurrection, apart from the interim insistence of the mysterious beloved disciple that Jesus had appeared to him and then been lifted to heaven like Elijah, all the Gospel accounts conflict with one another so much that all are totally discredited. Only with the ardour of Paul, who had been trained in Essene ways in their monastery in Damascus, did the new religion receive a forceful dogma: Paul applied the Egyptian-Kenite-Essene view of resurrection to Jesus and insisted falsely on his divinity. The new religion was born, but naturally it found few adherents amongst Jews and so Paul, perhaps with the limited support of Peter, was forced to take his message to Gentiles. Some of his Gentile hearers may have at some time been affiliated to the Essene community at Damascus; whatever the case, Gentiles were more capable of receiving Paul's message of the hope of life after death.

In the presentation of his thesis Drohan appeals for a fair hearing on more than one occasion; his appeal rests sometimes on the insistence that some scholars, the majority even, have deliberately kept the story he tells from wider audiences because of their own vested interests. This reviewer is tempted to answer Drohan point by point, if only to undermine what his book has in common with several sensationalist approaches to the Essenes, Jesus and Paul. I will resist the temptation, but simply point out some problematic items in Drohan's work.

Firstly, there are many errors in Drohan's writing that can be easily recognized; these perhaps do most to discredit his thesis. These

minor mistakes are slips which an author who knew what he was talking about would not make. For example, he reckons that the Babylonian captivity began in 637 B.B. (pp. 7, 56), he calls the Mesopotamian god Enlil Enil (pp. 8, 9, 17, 24), he says that Luke makes no mention of the pinnacle of the temple in his account of the temptations (p. 72; but see Lk. 4:9), he claims Mark has no account of the Transfiguration (p. 163), he names the author of the principal scholarly works on the Scrolls which he cites as Millar Burroughs (for Burrows; pp. 110, 132–33, 249, 252), in explaining Matthew 18:25 (p. 164; actually Matthew 19:24) he claims that the Aramaic *gemi* means both rope and camel (it only means rope, but might be confused with *gāmāḏ*), and so on. These are not simple misprints, but minor errors, some of them repeated several times; there are plenty of misprints too, but those need not detain us.

Secondly, there are half-truths in Drohan's presentation of primary evidence. Not only does he only cite the evidence that supports his overall thesis, but also he only cites the interpretation of that evidence which suits his purposes. For example, as part of his effort to discredit much of the Pentateuch he refers to the camels in Genesis 12:16 as anachronistic (p. 20). But not only does this alleged anachronism do little to harm the status of Genesis, it also is increasingly disputed, for example, by A. Parrot who found camel bones in a stratum at Mari datable to about 2500 B.C. Or again, there is no attempt to come to terms with recent archaeological information as Drohan retells (pp. 53–54) the settlement of Canaan and the fall of Jericho in particular. Or again, in associating Paul with an Essene community in Damascus, Drohan makes no mention (p. 216) of all the various options for understanding the reference to the land of Damascus in the *Damascus Document*.

Thirdly, there are the distortions resulting from the secondary evidence he adduces in his support. It is clear that Drohan wants to explain the Old and New Testaments away in naturalistic terms in order to show how their authors have misrepresented any ancient religious insight that there may have been, but that makes it all the more incredible that his principal witness in several matters is Edgar Cayce, a clairvoyant of the 1930s! Cayce is the only support Drohan cites in favour of his suggestion that Mary was an Essene virgin. Furthermore dialogue with current scholarly opinion seems irrelevant. In discussing the Fourth Gospel, Drohan's chief support for his appreciation of its historical accuracy is George Bernard Shaw; a pity, since there are not a few Johannine scholars who share something of this view. A glimpse at Drohan's bibliography shows how partial is his theory: first to be listed is the Watch Tower Aid to Bible Understanding,

and amongst the few authors cited are J. M. Allegro, S. G. F. Brandon, L. M. Graham, and H. J. Schonfield.

Fourthly there are problems of logic. There are many suggestions for interpreting a vast range of evidence in Drohan's work, but there are at least two logical flaws in his approach. Firstly, there is an underlying assumption that matters which belong to different temporal and geographical contexts but which share even the slightest similarities must be related to one another somehow. This cannot be assumed; it has to be demonstrated. Secondly, there is the assumption that if an interpretation of one set of evidence is possible and an interpretation of another set of evidence with some few similar characteristics is also possible, then the connection of the interpretations makes their overall effect more likely. The reverse is true: to add two possibilities together, particularly if the evidence is only viewed from one angle, makes any theory less, not more, likely.

Can anything be rescued from this book? At the least Drohan's work has shown this reviewer the desperate need there is for the scholarly world to communicate its findings fairly and accurately to as wide an audience as possible. At best Drohan has indirectly pointed out that the relationship between the Qumran community and the early Christians has not yet all been sorted out; he has also implicitly shown that the more Jewish Jesus is seen to be, the more the continuity between Jesus and the early church needs serious reconsideration.

GEORGE BROOKE

Michael Perry (Ed.) (Jubilate Hymns Ltd.) *Church Family Worship*
Hodder & Stoughton, 1986. Paperback. £4.95

The aim of this book, to 'offer a practical solution to those churches seeking informal yet intelligent family worship', is laudable and would meet a genuine need today. The method by which this aim is to be achieved is to blend the ASB Standard services, including Holy Communion Rite A and Morning and Evening Prayer, with a variety of nearly 800 hymns, songs and prayers. There are also suggestions for readings and extremely helpful indexes.

How well does the book succeed in its purpose? There is flexibility, with four good suggestions of possible modes of use. The lay-out is clear, the print easy to read. There is a good variety of hymns and religious songs, which should meet the requirements of most sections of the theological spectrum. The liturgical links are further supplemented by good cross-referencing, and themes can easily be followed up. For the hard-pressed vicar, curate or lay-reader,

'Church Family Worship' is undoubtedly a welcome mine of relevant information.

I have three reservations: first, the publishers claim that this one-volume service book will 'end the continual fumbling for different hymn books and prayer books that complicate so many church services today'. If a church is prepared to invest in sufficient copies for the congregation (from the 1st January 1987 the hardback edition will cost £6.95 and the limp version £4.95), that hope would seem to be met. I wonder, however, about the organist, instrumentalists (if any) and choir members, who would have to be ready to cope with a large variety of sources of music, all of which would cost considerable sums of money.

My second caveat concerns the ecumenical use of the book. There is a Covenant service in the Free Church tradition included, while many such ministers would be happy to use material from the book. I cannot, however, see many Free Churches obtaining sets for congregational use. Finally, as an aid to family worship, I would have liked to see more material specifically directed towards younger children.

To sum up: the project is innovative and 'right for its time'. Everything has been tried out, with a number of Family Service congregations acting as guinea-pigs in the use of drafts of the material. The editorial team is a good one, with a wide range of experience, and they have also sought the advice of specialist consultants. 'Church Family Worship' is deserving of success, and I wish it well.

ALAN HAYWOOD

James I. Cook (Ed.), *The Church Speaks*, Eerdmans Publishing Co, Grand Rapids, Michigan, 1985. 268pp. Paperback. £14.50

In 1959 the Reformed Church in America set up a long-term Theological Commission charged to review and restate (not change) the teaching of the Church, partly to guide members of local congregations, partly to clarify the response of the Church to overtures for Christian unity. This volume is a compilation of the papers submitted by the Commission to the General Synod between 1959 and 1984.

It is a comprehensive and impressive collection. It deals with Scripture, Faith, Sacraments, Ministry, Witness, and—a sign of growing concern in the latter years—Sexuality. Much variety is packed under each chapter heading. Witness, for instance, covers the relation between evangelism and social witness, nature in a crowded world, observance of Sunday, a critique of the doctrine of

Sun Mayang Moon's Unification Church, the nuclear arms race, and evangelisation of the Jews.

The first request came to the Commission from the Classis of South Grand Rapids, asking for positive affirmation of the historical character of Genesis. As a British Methodist minister I have no idea what precisely a Classis is. I guess that it is something like a Church Council or District Meeting. I found it, however, particularly interesting to be reading, in an unfamiliar setting, about questions and judgments that concern Churches everywhere. Not the least interesting was the fact that most of the judgments could well have come from the Methodist Conference or United Reformed Church Assembly in this country. We are, for example, involved in a continuing debate on many aspects of baptism: 'second baptism', infant dedication as a preferable alternative. The Commission returns a firm and reasoned negative to both. It examines in depth the neo-Pentecostalist claim that for full Christian commitment spirit baptism must follow water baptism. The considered judgment is that the charismatic witness to the inpouring of the Spirit is valid and has reminded the Church of a spiritual experience that had been neglected; but that Scripture and Church experience evidence that such 'second conversion' is not an essential stage in the progress of faith.

Over the 25 year span the papers are, as one would expect, soundly and persuasively Protestant. They are also on occasion sharply pointed; sharply criticising, for instance, Christian persecution of the Jews and the bad theology that caused the persecution, or making a helpful distinction between the invert homosexual by nature and the pervert who deliberately chooses to be homosexual.

On ministry, the stumbling block in unity negotiation, it is forthright. Ordination is to an office in the Church. It is not the bestowal of an indelible status. Whoever leaves the ministry for another sort of work ceases to be an ordained minister. It observes truly that there was no universal set order of ministry in the early Church. But though the Commission emphasises 'office' and explores the concept at length, that particular paper is hazy at the edges. Is teaching in a Church school, for example, 'an office in the Church'?

To the first question put to it, it answered that Genesis is rooted in history, for God reveals Himself in history not in abstract theory. But revelation in history can be through legend, poetry, myth, parable. Here, and here only, I got the impression that because of internal disagreement the Commission was evading the central issue. South Grand Rapids would not be much wiser. But it was, after all, the first attempt. All the rest is clear and solidly informative.

EDWARD ROGERS

Roger Hurding, *Roots & Shoots: a guide to counselling and psychotherapy*, Hodder and Stoughton, 1986. 464pp. Paperback. £8.95

Anyone who contemplates entering the field of counselling and psychotherapy is faced by an enormous range of possible approaches. Dr. Roger Hurding aims in his book to give an overview of a number of psychological theories and therapies, and to look at them in the light of Christianity. In his own words, he 'seeks to trace the development of today's counselling and psychotherapeutic practice from the soil of the Enlightenment and the ensuing growth of the secular psychologies.' He argues that 'the rise of these "listening arts" has, to a large extent, rivalled and, at times, taken over the caring ministry of traditional Christianity'. He uses the metaphor of 'the tree of pastoral care', and seeks to discover what other trees in the forest have to offer.

The book is divided into two equal parts. In part one the author traces the rise of the secular psychologies. After an introductory chapter on the tree of pastoral care, and a chapter discussing the question 'what is counselling?', he moves on to examine four major psychological approaches: those of behaviourism, psychoanalysis, personalism (with a chapter each for humanistic psychology and existential psychology), and transpersonalism. Three of the 'new therapies'—rational-emotive therapy, transactional analysis, and gestalt therapy—are discussed in the last chapter of part one. For each theory/therapy, Hurding gives an account of its development, an outline of its basic concepts, assumptions and tenets, its use in therapy, and a critique of its assumptions and practice from a Christian perspective. Thus for psychoanalysis (which is accorded two chapters), we begin with a potted biography of Freud, followed by a description and discussion of his theories about the unconscious, the instincts, the developmental stages (such as the anal phase, oral phase, phallic phase), and his theory of personality involving the functions of the id, the ego and the superego. A description of the practice of psychoanalysis is rounded off by a critique of its assumptions. For example, having acknowledged the importance of many of Freud's ideas, Hurding challenges the assumptions concerning the role of the superego: 'Where many readers of this book will part company with Freud is with regard to his belief that the conscience is primarily a harsh parental voice that is instilled into the psyche during childhood . . . the Christian would want to add that God is at work too, seeking to challenge and educate conscience through his Spirit and according to his word.'

In part two, Hurding discusses the work of Christian therapists and

counsellors. In evaluating their work, he considers whether the assumptions, aims and methods of a given methodology accord not only with divine revelation about human nature but also with scientific investigations where practicable. Those he considers range from the extreme biblicist approach of Jay Adams to the Clinical Theology of Frank Lake, taking in Paul Tournier, Christopher Bryant, Leslie Weatherhead and several others on the way. Fairminded to the last, Hurding finds something to praise and something to express doubt about concerning each one. Then in the final chapter, 'The Wonderful Counsellor', Hurding discusses Christ's response to needy individuals as paradigmatic for counselling, and from that considers what the aims of counselling should be without, however, falling into the trap of considering that the bible is a do-it-yourself manual. He acknowledges (rightly, I consider) that it is 'perhaps a more precise guide in the establishing of assumptions and aims than in clarifying methods.'

At the start of the book the author sets himself a large task. How well does he accomplish it? His summaries in part one of behaviourism, psychoanalysis, personalism and transpersonalism are done well. They are, inevitably, extremely compressed—Freud's theory of personality in two pages; the complete Laing in seven—and inevitably Hurding (as he acknowledges) cannot do them full justice. What he does do, however, is give a clear indication of the main thoughts and ideas. In the case of Viktor Frankl, Hurding succeeds more than Frankl himself whose books are repetitive and often muddled. Hurding's critiques of these four approaches from a Christian perspective are frequently illuminating—as in his discussion of Carl Rogers' underlying assumptions (I don't agree with his assessment of the Rogerian concept of autonomy as being 'baneful', but he states his case well, albeit briefly). His discussion in part two of a number of Christian therapists and counsellors made interesting and, at times, salutary reading. But the final chapter was disappointing. He teases out repentance, restoration, redemption and regeneration: as four aims of counselling/therapy warranted by a scriptural perspective and discusses briefly what he means by each. But 'briefly' is the word. The topic is one that should occupy a book in itself, not just the final twenty pages of one, and I was left feeling vaguely cheated.

I have other quibbles: the 'tree of pastoral care' metaphor becomes tediously overused in part one, and I started to groan at the increasingly convoluted developments of the metaphor. Dare I say that it could have done with pruning? Also, I regret the exclusion—except in a paragraph relegated to the notes section—of any discussion of my own field of therapy, namely the systems perspective

as employed in family therapy, an approach increasingly used in the NHS, social services and other helping agencies.

That, however, does not prevent my saying that it is a book worth having. It covers a lot in a fairminded, balanced fashion. Roger Hurdling comes across as a compassionate man who wants both the scientific and the scriptural to play their parts in therapy and counselling. This book helps to tease out many of the issues involved.

RICHARD SKINNER

Adam Ford, *Universe: God, Man and Science*, Hodder & Stoughton, 1986. 220pp. £6.95

Tim Hawthorne, *Windows on Science and Faith*, I.V.P., 1986. 128pp. £2.75

Not infrequently my students return from youth camps amazed by the sophistication of the questions posed about the relationship between science and the Christian faith, and it is not just A level students who are perplexed about evolution theory or the possibility of miracle. The problem is that most of the apologetics texts used in our theological colleges are drastically out of date. This century has seen some amazing break-throughs in scientific knowledge from quanta and quarks at the micro-level to the Big Bang and quasars at the macro, from relativity theory in physics to the mapping of the DNA molecule in biology. All this calls for a shift in apologetic strategy. For example, the challenge now is no longer reconciling the Bible with a causally enclosed, mechanistic universe but with a cosmos governed at the most fundamental levels of matter and life by pure chance, for the experts inform us that both the activities of sub-atomic particles and genetic mutations leading to evolutionary development are of a purely random nature. We need, therefore, a new generation of authors who are both committed to Christ and conversant with contemporary science to help us begin to answer the pressing intellectual problems of today's intelligentsia.

We can be grateful then to Prof. Tim Hawthorne for updating his *Questions of science and faith* (1960) and for Rev. Adam Ford's contribution. The two authors have much in common. They both acknowledge the inadequacy of scientific reductionism, and the tentative nature of modern scientific descriptions of the world (Hawthorne quotes with approval the words of the space physicist Robert Boyd: scientists 'know they do not really understand but merely picture to themselves the behaviour of God's world by insubstantial images of an ever-elusive reality' pp. 19-20). They both

reject the semi-Deistic God-of-the-gaps in favour of an all pervasive, sustaining deity. Both cover much the same subject matter: The New Physics, the origin and destiny of the Universe, miracles, evolution and the origin of life, and the question of whether man is qualitatively different from the animals. As one might expect, Hawthorne as Professor of Biochemistry at the University of Nottingham Medical School concentrates on the biological issues while Ford, a keen amateur astronomer, focusses on cosmological questions. Ford also provides a chapter on theodicy and one on ecological issues.

Their scientific views also have much in common. For example, they both assume the truth of evolution theory and the great age of the cosmos. Both reject mind/body dualism in favour of the monist view. Needless to say many fellow Christians would take issue with them on their conclusions. They do, however, disagree on whether subatomic events and genetic mutations are intrinsically random.

Hawthorne says no, the Bible teaches that God ordains everything, there is no such thing as chance (Prov. 16:33). Ford says yes, God instituted purely random processes and he did so in his wisdom to ensure, for instance, flexibility in life forms as they are enabled by chance genetic mutations to adapt as evolving species to drastic environmental changes. This contention constitutes an important element in his theodicy.

Yet the most significant disagreement between the two authors is at the epistemological level. As an evangelical, Hawthorne maintains that the Bible is a divinely inspired document and therefore authoritative in all it teaches. It is not a scientific text book but science should be expected to harmonize with what Scripture does teach. Hawthorne himself believes that Adam was a product of the evolutionary process and the fact that he had human contemporaries may be inferred from eg. Gen. 4:14, 17, 6:2. Physical death preceded Adam, and the Fall only entailed spiritual death. Adopting the Day/ Age theory, he feels that the evolutionary sequence is marvellously presented in Gen. I (he omits to mention the awkward fact that birds [Day 5] precede the land animals [Day 6]).

In contrast, theologically Ford is a modernist. Certainly, he believes, the Scriptural writers were inspired in the sense that God elevated their insights so that they were drawn to record their thought using their own fallible words and concepts but we the reader and the scientific enquirer may expect to receive equal inspiration. Ancients like Adam and Noah are relegated to myths without historical basis. Fundamentalism is pilloried. Creationism is a 'Kindergarten image' which should be discarded along with 'a nursery Noah's ark' (p. 75). In fact, Ford informs us, 'The literal

interpretation of scripture . . . can be traced back to the sixteenth century, and could be argued to be a heresy which resulted from the Reformation' (93). Unfortunately Ford ignores the fact that the only explicit Biblical teaching on inspiration (2 Tim. 3:16) affirms that it is the *writings* (graphē) that are inspired, and would he really prefer to revert back to the pre-Reformation hermeneutic where fanciful allegorisation held sway? Reformation exegesis was not in fact characterised by wooden literalism, it sought rather to arrive at the plain meaning of the words while taking such factors as genre and figures of speech fully into account. At its best, modern fundamentalism follows the same methodology. Sadly, like many neo-liberals, Ford seems to find a greater affinity with the optimistic evolutionary mysticism of Teilhard de Chardin (pp. 104–109) than with Biblical Christianity, and the Eastern sages seem to hold a great fascination for him (see pp. 55, 72, 107). While avoiding the Deist frying pan he is in danger of falling into the pantheist fire.

Notwithstanding its inadequate theology, *Universe: God, Man and Science* is the more profound book of the two and the author has done a better job in integrating his religious faith and scientific beliefs. He is also the better communicator. Again and again Ford's prose borders on poetry as he evokes the awe and grandeur of God's universe. Here is but one example early in the book where the world is described at the atomic level:

Even steel girders and mountains are no more than a gossamer of energy. In a telling phrase the physicist Paul Davies has said that we and all other material things have been 'spun from a frolic of Nothingness.' All hard things, which seem so solid to us—tables, paving stones and heads—are in fact like fine three-dimensional lace, a sort of ghostly spider's web woven from energy as energy performs its unending cosmic dance (p. 17).

Ford has produced a better written, more passionately enthusiastic book which manages to press home the evidence for God implicit in such modern discoveries as the finely-tuned nature of physical laws, the tiniest variation of which would result not only in the cessation of all life but the disintegration of matter itself.

Hawthorne is more tentative and prosaic (perhaps as befits a professional scientist!) and when writing on his own area of expertise he becomes somewhat hard to follow. Yet he sometimes borders on the simplistic when venturing into other scientific disciplines (e.g. he claims the cosmos began as an 'immensely dense ball of matter' (p. 46) whereas Ford informs us on p. 53, physicists believe that it was a million years after the Big Bang that the first atoms began to form.) Occasionally he seems to miss the point. For instance he rebuts

Monod's contention that life developed purposelessly as a result of totally random genetic mutations, by arguing that in fact God is instrumental in the production of these mutations and they are therefore purposive. However, Monod has a stronger case than this suggests. His main point is well paraphrased by D. J. Bartholomew, 'Mutations are entirely consistent with the hypothesis that all change is by accident. The expected linkage between action and outcome which is the characteristic of purposive action is entirely lacking' (*God of Chance*, S.C.M, 1984, p. 19). In other words there is no sign of purpose or plan or intentionality in these mutations; most are *not* conducive to the survival of the species.

Hawthorne is at his most thought-provoking when he shares the latest discoveries in molecular biology which he claims provide independent evidence for evolution. Evidently the nature of the proteins within different species show varying degrees of relatedness such that computers can use the data to construct family trees which are remarkably similar to those constructed from the fossil record. 'In fact, if the fossils had never been discovered, this molecular study would push us to much the same conclusions as those of Darwin' (p. 67). This kind of correlation weakens the view that evolution falls short of a true scientific theory on the grounds that it is non-verifiable. This is a discovery of the greatest importance in the evolution debate and yet it is not widely known. It is not discussed, for example in N. M. de S. Cameron's recent study *Evolution and the Authority of the Bible* (Paternoster, 1983).

Both books are informative and stimulating reading. They point up the danger on the one hand of fundamentalist obscurantism whereby, in the words of Ford, 'the major and most exciting insights of modern science are rejected as godless frauds' (p. 50) and on the other hand the subjective natural theology which Ford seems to put in its place. Hawthorne provides a middle way: all truth is God's truth and his Word and works will surely cohere when correctly interpreted. However, the task of the correct interpretation of each is an ongoing one in which Biblical exegetes and Christ-centred scientists should be energetically and humbly engaged. While the results are still coming in we should avoid unwarranted dogmatism and take heed to Prof. Hawthorne's timely advice: 'Perhaps it is more important to be "in love and charity" with our Christian neighbours who differ from us, than to adopt any particular position' (p. 7).

ROBERT COOK

Peter J. Bowler, *Evolution: The History of an Idea*, Univ. of California Press, 1984. 412pp. Paperback. £9.25

It had to be done! A history of evolution, or the evolution of the evolving idea of evolution. This is a formidable undertaking covering the history from 1650 to today, not only biological and geological but also philosophical, ethical and religious.

With apologies to the Ordnance Survey, Bowler has produced an excellent 'Route-Planning Map' to the history of evolution. Its strength is overview, but its weakness is in detail. For example, he wrongly calls Buckland a Scriptural Geologist (p. 113). However, there are no 'Landranger' maps on the Scriptural Geologists, who are like Creationists of the 1820s.

Throughout the book Bowler takes a straightforward historical approach, which is what is needed. Rightfully nearly half the book deals with the events before 1859, and pre-Darwinian ideas are dealt with fairly and not dismissively. We are introduced to most of the famous names, Burnet, Whiston, Lhwyd, and Ray, and Buffon and Laplace. There is a short chapter on the rise of geology, which again would make a volume or two in its own right, as would every chapter in this book.

The heart of the book are three chapters on Darwin and the reactions to him. Again Bowler is concise and well-balanced, but why didn't he check the myth of the Huxley-Wilberforce encounter of 1860? And so to Post-Darwinian days with two excellent chapters on 'The Eclipse of Darwinism' and 'The Social Implications of Darwinism'. We are led into the twentieth century from Neo-Darwinism to Punctuated Equilibria and even Creationism. Finally, there is an excellent 50-page bibliography.

Bowler has produced an excellent guide, which ought to be read by all interested in the history of evolution, and even more so, by those interested in evolution (or Creationism) but who ignore the history.

MICHAEL B. ROBERTS

P. C. W. Davies and J. R. Brown (Eds.), *The Ghost in the Atom*, Cambridge University Press. ix+157pp. Paperback. £6.50

The greatest paradox of quantum theory is that, while it is very successful in predicting phenomena, we cannot agree about what is going on. The book under review seeks to set these interpretative issues before a non-specialist public. The first chapter presents a clear outline of the nature of the problem and the competing theories offered for its solution. This is followed by a series of transcripts from the radio programmes which were the original expression of the project. The programmes took the form of interviews with a single

person who was encouraged to present the view that he himself espoused. It is instructive to note how many of these protagonists claim that only their chosen viewpoint is a possible one.

Interest in the interpretation of quantum theory has recently been revived by an elegant experiment, performed in Paris by Alain Aspect and his collaborators, which showed persuasively that a counter-intuitive non-locality (a 'togetherness-in-separation') is indeed present in quantum phenomena. Aspect is the first interviewee and he gives a modest account of his important experiment. John Bell, the man whose theoretical analysis lay behind the Aspect experiment, is the next at the microphone. His is a characteristically perceptive, if somewhat elusive, discussion, defending physical realism and giving intriguing hints of the possible role of a 'quantum aether'. The classical Copenhagen interpretation of Niels Bohr is defended by John Wheeler (who calls it 'battle-tested') and Rudolf Peierls (who nevertheless assigns a role to conscious observers which goes way beyond anything Bohr said). The prodigal many-worlds interpretation (that the universe divides at every act of quantum mechanical measurement into parallel universes, in each of which one of the possible results of that measurement is realised) is put forward by David Deutsch. John G. Taylor espouses the statistical interpretation (which declines to talk about individual quantum events) and he attempts, unjustifiably in my opinion, to annexe for it alone the considerable successes of quantum field theory. Finally David Bohm, in an interview in which he effectively deals with the rather naive positivism of his interviewer, presents his own determinate theory, which is given a second airing in an interview with his colleague, Basil Hiley.

Those who know about these matters (and so would not need the introductory chapter) will find some interesting material in these interviews. For those less expert, I think they will prove less helpful. On the printed page we lose the immediacy and individuality of the spoken word and a more considered form of written exposition would have conveyed more accessibly the views of those concerned.

JOHN POLKINGHORNE

John Stambaugh and David Balch, *The Social World of the First Christians*, SPCK, 1986. 194pp. Paperback. £6.95

This book is a fine example of an inter-disciplinary approach to a subject, which is part of several fields and therefore gives such an approach good scope. The writers are scholars in their own fields

who have been able to combine forces to produce a useful introductory volume to a fascinating area.

The first half of the book is the work of John Stambaugh, whose skills as a classical scholar provide the background of the early Christian Church, in terms of the Hellenistic world and its culture as well as the provincial organization and the place of Roman Law. Whilst this material is highly condensed, it can provide a limited avenue to explore further the conditions under which the early Christians had to work and express their faith.

The second half of the book begins with an account of society in Palestine, by David Balch, a New Testament scholar. This chapter endeavours to provide a great amount of material in a very limited space and brings together a number of features which are rather disparate ones, though there are obvious links between them. The last two chapters are the joint work of the two authors, who have provided an interesting picture of the urban environment within which the early believers lived. The attempt to show the various elements is open to some criticism, in that more attention could be given to lower social classes, especially the traders and slaves, whose share in early Church circles was probably a large one. The final chapter on Christianity in the various urban centres is a useful one. There are suggestions for further reading and a good index. This book fills a gap which could be further explored on the social conditions, that pertained to the rise and expansion of 'primitive' Christian Communities.

JOHN H. CHAMBERLAYNE

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Dr. R. G. Fraser, Geology Department, University of Hull
- 12.45 Lunch
- 2.00 p.m. Perspectives on Creationist Apologetics
*M. W. Poole, Department of Science Education,
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