

Sam Harris *The Moral Landscape* (Blackswan/Transworld publishers; 2012, pbk. 380pp. £9.99. ISBN 978-0-552-77638-7)

Abstract

Sam Harris is one of the so-called ‘New Atheists’. In his latest book, he argues against the inadequacies of a theistic understanding of morality and seeks to promote a science-based secularism in which science (mostly neuroscience) determines moral values, defined in terms of the promotion of human well-being. This article offers a sustained critique of Harris’s method and conclusions. Harris shows little awareness of the huge scholarly debate surrounding the questions he is addressing. His polemic against religion - and particularly against scientists who are Christians - betrays an ignorance of the growing literature on the conversations between science and faith. For all his strident argumentation, Harris’s actual argument does not stand up to scrutiny.

Faith, morality, reductionism, science, well-being

1. Sam Harris is the angry younger man in the missionary quartet, (sometimes called ‘The New Atheists’), which also includes Richard Dawkins, the late Christopher Hitchens and Daniel Dennett, who are committed to ridding the world of religion as far as possible and promoting a science-based secularism instead.

Harris’ first book *The End of Faith* written soon after 9/11, is about the destructive role played by some religious people in justifying and rewarding terrorism. He received thousands of critical letters in response from Christians - mostly in the USA - excoriating him for not believing in God. He wrote *Letter to a Christian Nation* in reply, offering his refutation of (especially fundamentalist) Christianity. *The Moral Landscape* (2010) takes up one of the themes Harris says he often finds in debates with Christians, namely that belief in God is necessary as a basis for moral values. Not so, he argues. Science provides all that is needed. The subtitle for his book is “How science can determine human values.”

Harris summarises his argument in a paper written in response to the critics of *The Moral Landscape* when it first came out. (Huffington Post 29/1/2011):

‘The purpose of *The Moral Landscape* is to argue that we can, in principle, think about moral truth in the context of science....Morality and values depend on the existence of conscious minds, and specifically on the fact that such minds can experience various forms of well-being and suffering in this universe. Conscious minds and their states are natural phenomena, of course, fully constrained by the laws of Nature (whatever these turn out to be in the end). Therefore, there must be right and wrong answers to questions of morality and values that potentially fall within the purview of science. On this view, some people and cultures will be right (to a greater or lesser degree), and some will be wrong, with respect to what they deem important in life.’

Now, ‘thinking about moral truth in the context of science’ and saying that ‘answers to questions of morality and values potentially fall within the purview of science’ mean rather less than the book’s subtitle claims: ‘Science can determine human values.’ Compared with that subtitle’s bold assertion, the conclusion to the book is modest indeed: ‘Whether or not we ever understand meaning, morality and values in practice, I have attempted to show that there must be something to know about them in principle.’(p. 244).

Surely Harris cannot only mean that there is ‘something to know’ about morality. Is he only saying that it is important to take note of scientific facts when we make moral judgements? If so, that is not controversial and hardly worth writing a book about. No he must actually mean what the subtitle of the book suggests - that he believes the only way of determining ‘meaning, morality and values’ is through science - by which it turns out that he mostly means neuroscience, which is, of course, the field of his own research.

So this is ostensibly a book about the nature of morality and the role of science in helping us know (even ‘determining’) what is good and what is evil, what is right and what is wrong.

2. However, the fascinating discussion about science and values is constantly interspersed by intemperate asides about the stupidity of religion, (leading to a whole chapter about the stupidity of religion towards the end of the book), making it clear that Harris' real motivation is after all not primarily scientific or philosophical, so much as anti-theist. Part of the sub-text is clearly implied in the contrast Harris poses in one paragraph. He is referring to President Obama's appointment to a national post of a scientist who is a Christian. Harris's comment speaks of Obama's effort to split the difference 'between real science and real ethics on the one hand and religious superstition and taboo on the other.' (p.221).

Does Harris really mean that it is self-evidently true that science is a valid route to knowledge and religion is not? That seems so in his refusal to accept that there can be such a thing as 'Christian morality' (p.15), while his own website called 'Project Reason' is devoted to spreading 'science and secular values'. If there can be 'secular values' why cannot there be 'Christian values'? But a 'secular' world-view is as much a 'faith' position as is a 'Christian' world-view. Here I am using the word 'faith' in the way most Christians do to mean a commitment informed by an inference to the best explanation based on what is believed to be sufficiently good evidence. Harris uses his own idiosyncratic and more pejorative understanding of faith as 'conviction without sufficient reason, hope mistaken for knowledge, bad ideas protected from good ones, good ideas obscured by bad ones, wishful thinking elevated to a principle of salvation.'(p. 224). No one I know understands 'faith' like that.

We will come back to religion, as we have noted Harris gives a whole chapter to it later in the book, but we look first at the books initial primary themes.

3. The book opens with the premise that 'human well-being entirely depends on events in the world and on states of the human brain. Consequently, there must be scientific truths to be known about it.'(p.13). The concept of 'good' is then understood as 'that which supports well-being'. Values are 'the set of attitudes, choices, and behaviours that potentially affect our well-being, as well as that of other conscious minds.'(p.25). Harris offers a picture of the moral landscape in terms of peaks which correspond to the heights of potential well-being and valleys which

represent possible suffering. (p.18). Although, like the concept of ‘health’, the concept of well-being is hard precisely to define, it is self-evident, Harris argues, that some people have better lives than others, and that these differences relate to different states of the human brain and state of the world (p.28), so can be examined by neuroscience. (p.19-20). Morality is thus the ‘science of human flourishing’ (p. 241). Although Harris often refers to ‘human well-being’, ‘human flourishing’, and the difference between ‘happiness’ and ‘suffering’, he wants to define ‘values’ slightly more widely in terms of ‘facts about the well-being of conscious creatures.’(p.49).

We need to be clear what is going on here. Harris is not saying, as I understand him, that the well-being of conscious creatures is a good thing, and their suffering is a bad thing. That would imply a separate concept of ‘the good’ against which well-being could be measured. No he is defining ‘good’ to mean ‘maximising well-being’. And since well-being is related to brain states, we need the expertise of neuroscientists to tell us how to maximise it. In fact, only ‘moral experts’ (who are presumably neuroscientists) ‘would have a deep understanding of the causes and conditions of human and animal well-being’. For the rest of us, our ‘intuitive morality’ may just be wrong. (p.55).

This is, of course, different from our usual everyday use of the word ‘good’. Is it not a ‘good’ thing to seek to preserve the coral reefs just because they are beautiful, not because they contribute to human well-being? (Unless Harris is happy to extend the concept of well-being to include the appreciation of beauty - and if so, why not to include the sense of well-being many Christians would ascribe to their faith in God?). Could it not be ‘good’ not to interfere with the lives of strange sea creatures in the deep ocean even though they do not contribute to the well-being of any conscious being? Or think of the sculptors who carved wonderful little statues ‘for the glory of God’ high in the hidden heights of Cathedral ceilings which no one would ever see. Some may think they were deluded, but it is not self-contradictory to ‘evaluate’ what they did – to ask whether what they did was ‘good’. It is not a meaningless question to ask whether Archbishop Cranmer was ‘right’, as a sign of his penitence, to thrust first into the flames the hand which signed his recantation when he was burned at the

stake. In other words we usually use the concepts of ‘good’ and ‘bad’ to refer to more than the flourishing of conscious beings. We usually have a richer and broader concept of ‘value’ than Harris’s rather neutered version when he says ‘the concept of ‘well-being’ captures all that we can intelligibly value’ (p. 50).

4. Harris then takes his argument one stage further. Because, he argues, all questions of well-being are related to states of the brain (though he sometimes rather unclearly adds ‘and to human behaviour and to states of the world’ – which could mean quite a lot, if unpacked), they are susceptible to scientific investigation. A ‘scientific account of human values’ is not the same, argues Harris, as an evolutionary account (p. 25), but it does mean that ‘there are right and wrong answers to questions of morality.’(p.31). He rightly wants to say that ‘science should increasingly inform our values’ (p. 36) - of course! And that ‘there are facts about human well-being that await our discovery’ (p.70) – of course! But he wants to say more: not only can ‘science resolve specific questions about morality and human values’ (p. 56), but ‘we will increasingly understand good and evil, right and wrong in scientific terms, because moral concerns translate into facts about how our thoughts and behaviours affect the well-being of conscious creatures like ourselves.’(p.85).

In other words, there are moral facts about which we can be right or wrong. ‘In speaking of ‘moral truth’, I am saying that there must be facts regarding human and animal well-being about which we can also be ignorant or mistaken.’ (p.49).

Now to affirm some foundation for human values is to commit to a form of ‘moral realism’, (p.86) about which, of course, there has been a huge amount of philosophical debate. But Harris does not mean what is usually meant by ‘moral realism’. The vast majority of philosophers who embrace ‘moral realism’ mean that there are ‘moral facts’ about the world which we apprehend by intuition; they are self-evidently true and confront us with a sense of obligation. For example, when we say that ‘Martin Luther King’ was a good man, we are saying something about King and the way his call to justice confronts us - we are not simply expressing our personal preference and taste. We do have personal tastes, of course: you like tea, I like coffee; there are no grounds for rational disagreement about that. But to say

‘the Holocaust was evil’ is to say something about the Holocaust, not something about my personal preferences.

But ‘moral realism’ for Harris means that he believes that all ‘values reduce to a certain type of fact’ (p. 158). At a stroke, the classic philosophical argument that you cannot derive an ‘ought’ from an ‘is’ dissolves away. The commonly affirmed ‘split between facts and values is an illusion’ (p.228). Morality is simply a form of science, especially neuroscience. So Harris, despite his dislike of the concept of ‘ought’ (‘artificial and needlessly confusing...another dismal product of Abrahamic religion’ p.57), does want to use the word ‘should’(p.81). He rightly argues at one point that ‘ethical beliefs like ‘cruelty is wrong’ are not expressions of mere preference’ (p.27). It is not clear, however, on what grounds he would disapprove of animal cruelty – like dog fighting - if it gave pleasure to human beings. He says ‘Morality and values appear to reach deeper than mere matters of taste - beyond how people happen to think and behave to questions of how they should think and behave’ (*Huffington Post* 29/1/11). But then he rapidly adds that he doesn’t think that ‘a distinction between morality and something like taste is as clear or as categorical as we might suppose.’(*ibid*). So what is he actually saying? Simply that there is a concept of ‘the good’ which we can know, and that moral claims can be true or false, but this concept is the same as a measurable concept of ‘well-being’, and science can do the measuring. Moral facts are simply scientific facts after all.

5. Harris’s second commitment, alongside his version of ‘moral realism’ (that moral claims can be true or false) is to ‘consequentialism’ (p.86), namely that, as he puts it, ‘the rightness of an act depends on how it impacts the well-being of conscious creatures.’

Of course Harris says he is well aware of all the difficulties of holding to a thoroughgoing consequentialist view of morality, about which there is a huge philosophical tradition. He acknowledges some of these difficulties (with some examples familiar to undergraduates in any ethics class) and then seems to press on regardless. If ‘maximising well-being’ is the criterion, it is hard to say that gladiatorial fights which give pleasure to thousands through the loss of the lives of a

few slaves is ‘wrong’. It is hard to condemn either torture as a means of finding information to reduce widespread terror, or the use or threat of using weapons of mass destruction if they could lead to the end of a prolonged war. But to most people, it still makes sense to ask ‘Is this right?’ When we say that Oates did a ‘good’ thing by walking out of Scott’s tent into the Antarctic blizzard, we are not evaluating consequences for well-being, we are speaking about his intention, a word which is part of our normal ‘moral’ vocabulary.

Consequentialism will sometimes justify dubious means for the sake of good ends - and Harris’ failure to acknowledge that ‘means’ raise separate moral questions from simply a concentration on the ‘end’ of ‘maximising well-being’ underlies his failure to understand, and his irritation with, for example, those who have moral difficulties in using human embryonic stem cells for research.

6. In his discussion of Jonathan Haidt’s work on the emotional components of moral decision making, I think Harris is on very shaky ground. True, Haidt’s major work *The Righteous Mind*, had not been published when Harris was writing, setting out as Haidt does a range of ‘moral foundations’ derived from anthropology and evolutionary biology and having resonance with ancient religious moral codes, and so describing some reasons why moral disagreement in politics and religion is so widespread. But – in order to support his thoroughgoing consequentialism - Harris suggests that Haidt’s five (or later six) ‘moral foundations’ are all in fact ‘simply facets of a general concern about harm’. (p.119). Haidt can of course speak for himself, but Harris seems to me to do scant justice to Haidt’s impressive case by reducing all moral motivations to concerns about harm. Indeed in *The Righteous Mind*, Haidt criticises The New Atheists for their ‘Platonic rationalist view of the mind’ in which reason is said to guide the passions, and which reduces religious psychology simply to a link between belief and action. Haidt follows Durkheim in proposing that belief and practice in religion (and elsewhere) are primarily about creating a community in which ‘belonging’ to a moral community is the primary source of moral motivation, and in which the source of moral intuitions is persons in relationship. In contrast to Haidt, Harris’s view of moral intuition is very thin and impersonal and individualised.

7. Harris' next chapter on 'Belief' begins with the surprising statement that 'so little research has been done on belief'. He must, I suppose, mean 'neuroscientific research', which may of course be true. But one only needs to look at any basic textbook in the psychology of religion to know that a fair amount of social and individual psychological research into belief is already written up. Unsurprisingly, Harris' own research into belief and unbelief suggests that 'the physiology of belief may be the same regardless of a proposition's content' (p. 158), and that 'norms of reasoning seem to apply equally to beliefs about facts and to beliefs about values.' (p.159); 'religious belief may be nothing more than ordinary belief applied to religious content.'(p.198). I would have thought that is generally agreed. Harris is on much more shaky ground, however, in his previous chapter, when he affirms that it is brain events which cause thoughts and intentions (p.140), and this fact may be thought by some to erode the notion of moral responsibility (p.140), and certainly, he argues, makes the concept of 'free will' illusory. It is not quite clear what Harris is doing here, because he then wishes to defend the concept of 'free choice' by which he means that - though caused by brain events, it feels as though we are free to choose, and that still matters. Harris realises he is open to the charge of materialistic reductionism here, and that is exactly what is going on. However, science does not require this: he is adopting a philosophical world-view based on something other than science.

The Christian neuroscientist Malcolm Jeeves sees things differently.

'While these several attempts to solve the free-will problem scientifically are not at all promising, this does not mean that we should deny human freedom. There is nothing remotely scientific in ignoring or minimising the importance of our primary experience that we make choices all the time. To try and pretend, on any ideological reductionist grounds, that the common human experience of freedom to choose is an illusion is blatantly unscientific special pleading. It amounts to sweeping universally shared and agreed empirical data under the carpet.' (M.Jeeves "Brain, Mind and Behaviour" in Browns, Murphy and Malony *Whatever Happened to the Soul* Fortress Press 1998).

It is a pity that Ian McGilchrist's work had not been published when Sam Harris was writing *The Moral Landscape*. McGilchrist, who has researched in neuroimaging, has

written a magisterial scholarly account of the workings of the different hemispheres of the brain, and how these effect the development of human understanding and culture. (*The Master and his Emissary*, Yale 2009). In it he writes:

‘Moral values are not something that we work out rationally on the principle of utility, or any other principle for that matter, but are irreducible aspects of the phenomenal world, like colour.’ (p.86).

That is what is more usually meant by ‘moral realism’.

8. Then we come to Harris’ chapter on Religion, the purpose of which seems to be to demonstrate Harris’ view that though ‘even secular scientists regularly acknowledge religion to be the most common source of meaning and morality’ (p.188), they are clearly wrong. Religious doctrines are ‘incredible’ (p. 193); religion is largely a matter of what people teach their children to believe (p.196); in terms of neuroimaging, there is nothing special about religious believing; the boundary between mental illness and religious belief can be difficult to discern (p.203); there must therefore be an insuperable contradiction between reason and faith, between science and religion. This is, of course, a mixture of truth and simply assertion. But the real motivation for the chapter comes clear in the second half, given over to a mockery of the religious testimony of Francis Collins, former head of the Human Genome Project and now Director of the USA National Institutes of Health. There might well be sufficient grounds for many people to disagree with Collins about his faith and the way he expresses it, but it hardly induces trust in Harris’ scientific objectivity when he simply rubbishes it as ‘intellectual suicide’ (p. 206). What is most shameful is that Harris produces a set of six propositions as if they were articles of the Christian faith (p. 215). For example

‘Jesus Christ, a carpenter by trade, was born of a virgin, ritually murdered as a scapegoat for the collective sins of his species, and then resurrected from death after an interval of three days’; ‘...this invisible carpenter will one day return to earth to judge humanity for its sexual indiscretions and sceptical doubts, at which time he will grant immortality to anyone who had has the good fortune to be convinced, on his Mother’s knee, that this baffling litany of

miracles is the most important series of truths ever revealed about the cosmos....’

These six propositions are a mixture of truth, half-truth, caricature, satire and just downright silliness - and yet Harris offers them as though this is how Collins commends his faith. That is shabby journalism not reputable scholarship. Hardly any better is his reference to a paragraph from Sir John Polkinghorne, Anglican priest and former Professor of Mathematical Physics at Cambridge. In order to illustrate the incompatibility of science with religion, Harris chooses a paragraph in which Polkinghorne is offering an admittedly speculative theological exploration about the future, which Harris chooses to dismiss as ‘nonsense’, ‘pseudoscience’, ‘pseudoscholarship’, ‘pseudoreasoning’. Just because Harris does not understand what Polkinghorne is trying to do in this paragraph is no excuse for plain rudeness. It is a real pity that Harris shows no evidence of having read any serious theology at all. He weighs in to matters which have over the years (sometimes centuries) been given highest level scholarly attention, and treats them at the level of an infant Sunday School class. He refers to N T Wright, but does not seem to have read his work. He should look at Wright’s appendix to former atheist philosopher Anthony Flew’s book *There is a God* (2007), in which Flew describes his conversion from atheism to belief, and comments on Wright’s historical evaluation of Jesus as ‘absolutely wonderful, absolutely radical, and very powerful.’

Why does Harris so dislike the concept of a conversation between science and serious Christian theology?

9. The final short chapter, ‘The Future of Happiness’ seems to confirm that Harris’ primary focus for ‘the well-being of conscious creatures’ is actually human happiness. It includes a section on ‘science and philosophy’ in which Harris reaffirms that the split between facts and values is illusory (p.228), and then rightly argues that ‘all data must be interpreted against a background theory’ (p. 229). This might mean, as I would argue and many philosophers believe, that all data come to us ‘value-laden’, but that interpretation would contradict Harris’s belief that all moral values are expressions of scientific facts. Harris underlines his assumption of physicalism – that the mind is the product of the brain and that mental events should be understood as physical events. (p. 229). Then there is some discussion about the psychology of

happiness, and a final broadside against many secular scientists, and of course against religion:

‘This book was written in the hope that as science develops, we will recognise its application to the most pressing questions of human existence. For nearly a century, the moral relativism of science has given faith-based religion – that great engine of ignorance and bigotry – a nearly uncontested claim to being the only universal framework for moral wisdom.’(p. 243).

Harris rightly concludes (though not in the way that I would mean it) that ‘we must form our beliefs about reality based on what we think is actually true.’ (p. 243)

10. So where does all this lead us? If I have understood Harris correctly, his main argument comes down to this:

- (i) morality is the maximising of the well-being of conscious beings, and so can in principle be wholly determined by science;
- (ii) what we call ‘moral facts’ are really a particular class of ‘scientific facts’;
- (iii) anyone who does not agree with this point of view is likely to be wrong (‘It seems abundantly clear that many people are simply wrong about morality’, p.117;);
- (iv) any one who believes in God must be either stupid or at least intellectually dishonest (‘religious dogmatism presents an obstacle to scientific reasoning’ p. 218; ‘few things make thinking like a scientist more difficult than an attachment to religion’ p. 225; ‘intellectually honest scientists cannot help but fall into overt conflict with religion regarding the origins of morality’ p.205).
- (v) we do not therefore need religion in order to make moral judgements.

The argument is based on certain *assumptions*

- (i) morality is defined as maximising the well-being of conscious creatures;
- (ii) human well-being entirely depends on events in the world and on states of the human brain.(p.13), therefore we need the expertise of neuroscientists to tell us how to maximise it; neuroscience is the only secure foundation for morality;
- (iii) science and religion –being antithetical ways of thinking about the same reality – can never come to terms (p. 22);
- (iv) all mental events are simply and wholly brain events.

These assumptions may all be questioned, however, and science alone cannot decide the issue.

(i) In the first place, most people understand morality to include dispositions, motives, intentions and actions as well as consequences. Moral judgements can qualify any of these as 'right' or 'wrong', 'good' or 'bad', and can include moral intuitions, rational decisions, the sense of being confronted with an obligation or a duty. And most people, I believe, would agree with McGilchrist that moral values are 'irreducible aspects of the phenomenal world' - that morality is unique; it cannot be reduced to non-moral terms. There is therefore a distinction between evaluation and description, which Harris fails to make. There is also a distinction between 'ought' and 'is' which Harris wants to dissolve. Even when we know all the facts, it still makes sense to ask what 'ought' to be done.

(ii) Second, there are other sources of morality than simply scientific facts about well-being. Of course the physical facts about brains and genes are vital in understanding the moral sense. But so is a person's social environment, which can have such a large effect on a person's moral judgement as well as their capacity for flourishing. Coupled with that is the wider culture and world-view within which a person (or society) seeks to flourish. Perhaps this is what Harris means when he (rightly) says 'Most beliefs are evaluated against a background of other beliefs and often in the context of an ideology that a person shares with others'.(p.160). Exactly - and that ideology (world-view) is a statement of faith and commitment about a world which may well include physical science but is not reducible to scientific measurement.

(iii) As a huge number of scientists who are Christian believers can testify, and John Polkinghorne is not the only one (!), there are many fruitful conversations taking place between science and religion. The scholarly literature is vast.

(iv) It is not true that a commitment to physicalism is required by neuroscience. There is an approach to philosophy of mind working with what is called a 'non-reductive physicalism', which is not dualist in terms of its understanding of the mind/body problem, but which believes there is more to life than the physical universe, and that personal attributes cannot be reduced simply to physics and chemistry. (see discussion

of non-reductive physicalism in Nancey Murphy *Bodies and Souls or Spirited Bodies*, CUP 2006).

Indeed, on the latter point, there are philosophers of science who have argued persuasively that all science itself has an irreducibly personal dimension – of knowing, evaluating, developing skills, intellectual passions, making judgements etc. This was given classic expression 50 years ago by scientist/philosopher Michael Polanyi in *Personal Knowledge* (1958). He ends with a paragraph about the appearance within evolution of the human mind as so far the ‘ultimate stage’ in the awakening of the world – developed from ‘a myriad centres that have taken the risks of living and believing – which have led up to our existence, all ‘in the same endeavour towards ultimate liberation’. ‘We may envisage then a cosmic field which called forth all these centres by offering them a short-lived, limited, hazardous opportunity for making some progress of their own towards an unthinkable consummation.’ He concludes: ‘And that is also, I believe, how a Christian is placed when worshipping God.’

11. The ‘alternative assumptions’ about the world, outlined above, all point in a different direction from Harris. In particular the existence of moral facts in the world, the fact that science works at all, and the irreducibility of personhood, can all be powerful pointers towards Christian theism. When that is coupled with the large amount of psychological research into religious experience, the coherence of Christian theism appears well founded. To elaborate each of these points briefly in turn:

It is true, as Harris implies, that we do not need religion in order to make moral judgements. Moral judgement has a meaning within itself - it does not need to make any reference to God. We are in the realm of knowing, of cognition. However, the validity of that judgement operates in a different realm: the realm of being, in which to speak of ‘moral facts’ indicates a moral reality within which human knowledge arises. This does not necessarily require the existence of God. But if the existence of a God of self-existent goodness is known on other grounds (the self-authenticating revelation of God supremely in Jesus Christ’s life, teaching, death and resurrection, experienced in the life of believers through the work of God’s spirit, and showing

itself in the life of worship and Christian fellowship, the development of Christian character, the quest for holiness, and a commitment to neighbour love and social justice), the facts of morality can point towards God. (H.P.Owen's book *The Moral Case for Christian Theism* Allen and Unwin 1965, set out the argument clearly a long time ago).

Secondly, it is a remarkable thing that human minds can find the universe comprehensible – at least up to a point, and can be self-consciously reflective. As Oxford biophysicist/priest Dr Arthur Peacocke wrote a long time ago:

‘The realisation that our minds can find the world intelligible, and the implication this has that an explanation for the world process is to be found in mental rather than purely material categories, has been for many scientists who are theists, including the present writer, an essential turning point in their thinking. Why should science work at all? That it does so points strongly to a principle of rationality, to an interpretation of the cosmos in terms of mind as its most significant feature. Any thinking which takes science seriously must...start from this....There is clearly a kinship between the mind of man and the cosmos, which is real, and which any account of the cosmos cannot ignore.’ (*Science and the Christian Experiment*, Oxford, 1971, p. 133f.).

Thirdly, in a major intervention into the mind/body problem in 1968, Michael Polanyi argued for an understanding of the human person in terms of a hierarchy of levels of being, each dependent on but not reducible to lower levels (*Life's Irreducible Structure*, 1968). The fact that DNA functions as a code, for example, cannot, he argues, be reduced simply to the physics and chemistry of its organic bases. Encoding is a ‘higher-level’ function. The irreducibility of the concept of personhood - dependent on but not reducible to the physiology of the brain - itself points to personal reality as a basic feature of the cosmos. When that is coupled with the supreme importance placed by all cultures on the value of other-regarding love, the Christian affirmation of a personal God who is Love seems wholly coherent.

Fourthly, as Oxford biologist Sir Alister Hardy demonstrated from his research at the Religious Experience Research Unit, there is widespread scientific evidence for the reality of spiritual and religious experience. More recent research by biologist David

Hay, documented in *Something There: the biology of the human spirit* (DLT, 2006) suggests that spiritual awareness is a fundamental aspect of what it is to be human, and seeks to account for the importance of spirituality for human well-being. Once again, religious experience does not prove the existence of God. On the other hand, the existence of God could well account for the vast amount of data from people who say they have experienced God's presence.

12. I was hoping when I opened *The Moral Landscape* to see what common ground there could be between us in addressing the huge problems that face humanity and the wellbeing of the planet. My own doctoral work was in organic chemistry, I did some work on psychology of religion in Oxford, I have taught Christian ethics to undergraduates. So some of my academic interests largely overlap with Harris's. I also belong to The Society of Ordained Scientists, which brings together well over 100 people with research degrees in science who are also ordained clergy in the Church. However, that common ground does not seem to be on offer. Disappointingly, Harris closes himself off into a secular materialist mind-set which is simply not open to rational discussion of serious theology, to reductionist physicalism when talking about the mind, and to a neutered understanding of morality which reduces to a problematic consequentialism. Coupled with this there seems to be a refusal to engage in any serious conversation with people who believe that rational inference from the evidence of the world, physical and moral, to the best explanation takes them to theism – a faith confirmed in them by their experience of God. It is this faith which motivates the Christian quest for human flourishing and social justice which Harris says are among his major concerns. Why won't he talk about this? This is a huge pity, not to say disgrace, when there is so much work human beings need to do together in seeking a better world.

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