

Christians in Science/St Edmund's College
funded by the Templeton Foundation

Discussion following dinner with

Professor Alister McGrath

Tuesday, 9th November 2004

Peter Lipton: I have to start by thanking Alister McGrath for what I thought was a wonderful lecture: wonderful in the content of its ideas, wonderful in its clarity, and wonderful also I think in its generosity of spirit towards his opponent. This comes out if anything even more clearly in Alister's book: he has been assiduous in covering Dawkins' ideas and in presenting them accurately. This is a model of scholarly behaviour.

I want briefly to speculate how one might explain some of Dawkins' striking attitudes towards religion. I'm not going to try to defend those attitudes and I also should say that I think a full explanation of the strength or the vehemence of his commitment to atheism is not the kind of explanation that a philosopher is qualified to give. But there are three themes I want to touch on that were central themes in Alister's talk.

The first is Dawkins' gloss on the notion of faith as an evidence-free zone. The second is the meme idea, more specifically the question of why Dawkins is inclined to see theological or religious beliefs as a kind of virus. And the third, which I think in many ways is the most difficult to understand, is the great leap that Alister emphasized, namely the leap that Dawkins makes from agnosticism to atheism. As Alister emphasized in his talk, there is a double gap that has to be spanned to make the leap – the first because it seems that the science that Dawkins describes and endorses simply does not entail the non-existence of God; the second because the science itself is utterly provisional, for the simple reason that that is the nature of science. Those are the three issues that I want very briefly to use to try to connect the dots in a very speculative way.

Suppose that Dawkins had the following picture of his place in the universe: here we are, physical creatures, that experience some of the effects of the rest of the universe upon ourselves. If we are to find out how the rest of the world operates it can only be through developing a kind of sensitivity to the physical effect of the world on us. Particularly one then has to think of the causes of our beliefs about the world, the causes of our theories about the world. Those causes are terribly complicated and they include both physical and social elements; for example, most of what we believe is caused by the testimony of other people – most of what you believe, you believe because of what other people tell you. But the idea might be that insofar as we can know about the physical world, it is only because our beliefs have *causes* that are the content of those beliefs when those beliefs are true. That is the case in simple perceptual judgment – I can know that there is a coffee cup in front of me in part because the belief that there *is* a coffee cup in front of me is caused, albeit indirectly, by the coffee cup itself. A similar story applies to sophisticated scientific knowledge. If I can know that the speed of light has a certain value, that can only be because among the very complicated causal processes

that led to that extremely theoretical belief, is included the fact that light has that speed. On this picture of knowledge, unless there is some kind of causal linkage, you can't know, because you're not sensitive to the way the world is so that if the world had been different, your beliefs would have been different as well.

Now, suppose I thought that my only chance of establishing that kind of sensitivity to theological facts would be if something like the argument from design worked. That *would* create a causal link between me and God, because I can causally interact with the design features of the biological world and those features would then have been caused by God in a way such that things would have been different if God hadn't existed. But once Darwin comes along from this perspective, any chance of establishing that kind of sensitive causal relationship to a God is destroyed, because one has a completely independent causal process that would account for the very same course of experience. I think that this causal model of knowledge may help to explain why Dawkins thinks that we can't know about matters theological: for if Darwinism is true, then we are, in Dawkins' view, cut off from the kind of causal contact with God that could give us evidence if His existence.

This may also help to explain why Dawkins conflates faith with blind faith, since for him blind faith is the only remaining option after Darwin. Theologians have not meant *blind* faith by faith, but Dawkins has convinced himself that any belief in God could not possibly be evidence-based because it couldn't be sensitive to God as a cause. He has here appropriated the term 'faith' for something that is, by its nature, not evidence-based. In Dawkins' defense, however, I would say this is not a complete invention of the use of the word. In fact I think towards the end of Alister's lecture he said that "evidence takes us only so far" and then we have to make a leap of faith. Well, your use of the term "faith" in that context was something that comes in when the evidence runs out. So while I think Alister is right both historically and conceptually about the standard theological use of the word "faith", Dawkins' use of that term to mean 'blind faith' is not entirely idiosyncratic.

What about Dawkins's idea of religion as a virus? Well this is really a conjecture, but if Dawkins accepts the causal sensitivity model of how knowledge is possible then I think one can see why he's attracted to the virus metaphor, not as a general model of how we get beliefs but as a model for religious belief. A virus is autonomous in a way, it reproduces itself, it has a life of its own, and I think that Dawkins' idea here is that religious ideas also are autonomous and have a life of their own, and spread without ultimately having a causal sensitivity to the physical world. So that's a conjecture of why he sees the virus model as especially suitable to religious belief. Since the belief in God is undeniably real but is not, according to Dawkins, caused by God, it must be caused by something different, and the virus model shows how it might, in a way, cause itself. Of course Dawkins is also making hay on the pejorative associations of the term 'virus', and that's, I agree, is intellectually untenable.

Finally the toughest question: why does Dawkins leap from agnosticism to virulent atheism? There are at least three possibilities. The first arises because whether you are willing to make that leap will depend in part on what statisticians call the prior probability of the religious hypothesis. Suppose you initially gave the existence of God a reasonably high prior probability, but then convinced yourself that there can be no real empirical evidence for the God hypothesis. Then you might well end up an agnostic. But if you

started by giving the God hypothesis an extremely low prior, then once you have convinced yourself that there was no possible evidence, so there wouldn't be a higher posterior probability, then it's very easy to see how you would not stop at agnosticism but would move to a strong form of atheism. That's my first conjecture as to why he makes the leap.

My second conjecture arises from the thought that Dawkins is attracted to a deeply reductionist model of scientific enquiry and scientific explanation. I think one can argue that where one has a prior commitment to reductionism, quite apart from religion issues, there is a kind of presumption of non-existence. If you can get away without postulating the existence of something, you are entitled from a reductionist point of view to deny its existence. So that also bridges the gap between agnosticism and atheism.

My third and final conjecture of why the leap from agnosticism to atheism is made: if you are at all influenced by positivist thinking about the nature of science (and after all Dawkins is at the same college as was A. J. Ayer!), then you can convince yourself that there is no sensitivity possible between the hypothesis and experience, it's not just that you can have no evidence for the hypothesis, but that ultimately the hypothesis has no content: it is literally meaningless. And that, of course, would justify an attitude towards the God hypothesis much more aggressive than agnosticism.

Denis Alexander: Thank you very much, Peter. Well that's given us a lot of food for thought. I must say to all the non-philosophers round the table, who I know are in the great majority, don't feel that you have to be a philosopher to join in this discussion. We have plenty of practising scientists as well here, so please don't hesitate to give your views. We are going to throw this open to discussion and then ask Alister to come back and comment in a moment. Patrick, did you want to say something?

Patrick Richmond: I would like to echo Professor Lipton's praise of Alister's lecture. I also think that the most important question concerns why Dawkins moves from agnosticism to atheism. I, (with great temerity, knowing that Professor Lipton has written on inference to the best explanation), think that the reason why he thinks it's rational to move to atheism is based on several elements of what he takes to be a good explanation.

First of all, I don't think Dawkins needs to be reductionist in any objectionable sense: he just needs to believe in Ockham's Razor, the principle that explanatory entities should not be multiplied unnecessarily. In several places I have seen Dawkins refer to "Bertrand Russell's teapot", a hypothetical teapot that orbits the Earth or Mars. The evidence against such a teapot in one sense might be inconclusive, but Ockham's Razor suggests we don't need it to explain anything, so we shouldn't believe in it. It doesn't do any explanatory work. In the same way Dawkins wants to wield Ockham's razor to shave away God because God doesn't do any explanatory work. Dawkins has no need of that hypothesis.

Second, and more fundamentally, Dawkins thinks that God can't be a good explanation of the world. The reason is that God is too complicated. If you're allowed to postulate what you need to explain then of course you can 'explain' anything, but if we're trying to explain the organised complexity of the world, Dawkins claims God would have to have more organised complexity than what we're trying to explain. So just from what we understand a good explanation to be, we can see that God is not a good explanation.

Dawkins faults Professor Richard Swinburne, a very scientifically and philosophically astute thinker, for making a banana skin for himself, arguing that the simplest explanation is the best and then positing God, who Dawkins thinks is manifestly not a simple explanation. (See <http://www.royalinstitutephilosophy.org/think/print.php?num=17>.) I think that Dawkins makes several unwarranted assumptions about the complex nature of God, assuming he must have many organised parts like organisms do, but we believers often fail to see that there is a problem if God is more in need of explanation than the world is.

Third, evolution explains the beneficial order that we find in animals and ourselves but the mechanism of evolution is too cruel, too indifferent, too blind to good and evil for God to be a good explanation of it. So even if the second point above is mistaken, God is a poor explanation for a universe evolving through suffering and death. Conversely, blind physics being the ultimate reality is quite a good explanation of the indifference we find in nature, of the waste and other evils. Therefore I think that what explains Dawkins' move to atheism is that he thinks it is the best explanation of the data and that theism is not the best explanation of the data. Whether he's scientific or not depends on what you mean by 'science' – theology used to be called the queen of the sciences. I suppose in a sense Dawkins is an atheologian; he believes his atheology is the queen of the sciences and that he's making a reasonable inference to the best explanation. I have actually heard him on TV say that the God hypothesis is actually quite an interesting one. Perhaps there was a time when it was in the running because, according to Dawkins, you couldn't be an intellectually fulfilled atheist until Darwin came along. Be that as it may, Dawkins' seeking the best explanation of the universe seems the best explanation of why he moves from agnosticism to atheism and, despite the excellence of Alister's lecture, I don't think that enough has yet been said to show that he's mistaken. In his eyes, the best explanation is that physics, and not God, is the ultimate reality. So I think that that is the central question. Is Dawkins' atheistic inference to the best explanation correct, all things considered?

Leo Dasso: I was a bit surprised by Professor McGrath saying that atheism needs faith. I have been an atheist for some time now and I find it the default position. If you look for an elephant in your room and you don't find it, you're not agnostic with respect to elephants in your room, you don't believe that there's an elephant there: the absence of everything is evidence of the absence of the elephant. You don't need any faith to believe that there is no evidence of an elephant in your room.

In the absence of any evidence for the existence of this thing people call God with a capital G, I think that the only reasonable position, I would even say reasonable scientific position, is that there is no such thing and it puzzles me that this conversation is that positing a thing called "God" very happily is an epistemological and general philosophically respectable position. I find this puzzling. You have this word God, I hear it, what is it? Does anybody know the nature, the properties, the structure of the thing they call God? They don't. Nobody claims to know, nobody has a picture of God. Even if people had a picture of God they couldn't contrast it with any empirically available data. And you would very happily throw away this idea of there is this thing called God and he may be this, or he may have been the creator of the Universe, it's a word with no correlation or reality that anybody can find. So I really don't understand even what the conversation is about.

You could say something like a giant turtle, or something, is the creator of the Universe and it would have the same philosophical value and respectability as the word “God” which nobody knows where it is. It’s OK, God has always been historically and psychologically, sociologically a convincing narrative. Obviously it works and it has worked for centuries and millennia, but what is the epistemological respectability of this idea? In the absence of evidence, the default position is not agnosticism. You’re not agnostic about trolls, leprechauns, unicorns, Santa Claus – you don’t believe in them.

Atheism comes about because there is no reason to believe. I have no reason to believe there is a God, therefore I’m not agnostic, I’m an atheist. Of course atheism like any scientific view is a fallibilism, I can believe that a certain vaccine works and then in a couple of years this data shows that it doesn’t work, or any of the ideas that we have about biology or physics may collapse very soon. We are all fallibilists. It is not about faith, it is about the best explanation, as the gentleman said. If somebody shows any evidence that God appears we will evaluate it and we will see whether it’s convincing and then maybe we will become convinced. Until then we are not agnostics, we are atheists. That is the default position. I don’t think that there is any reason to explain why it is that Dawkins is not an agnostic, he’s an atheist, because agnosticism is basically a copout. It’s understandable that Huxley, in those days where atheism was a nasty word and you had to be a cleric to have a Fellowship in Cambridge, did not want to say “I’m an atheist”; no, he coined a very clever word to negate the nastiness of the word “atheism” which still has bad connotations, as it has in my family. It has had a bad press for a long, long time. The clerical establishment is very powerful; there is no atheist establishment or machinery or propaganda but there is a very powerful religious machine and propaganda that has given atheism a nasty name for centuries, so I can understand how Huxley came about with this very smart concept and word “agnosticism”. Maybe there are unicorns, maybe there are yetis and stuff and until we see one, we conclude there is none. And so we take the position that there is no such thing as this thing people call God, no such animal. It’s a reform position in the absence of evidence, science says you don’t believe until you have proof, you don’t postulate such a thing. I really don’t understand this idea that agnosticism would be rationally the default position, the default position is atheism.

Denis Alexander: Can we pause on that because you’ve made a very clear point and we’ve got a number of points from around the table and we need now to give Alister a chance to respond.

Alister McGrath: I would like to respond by thanking the three contributors for their very interesting points and I hope I’ll be able to make some useful responses. I’d like to begin by thanking all those who went to a lot of trouble to make this lecture possible – Denis, Bob and Jo – I’m very appreciative of that.

Peter has raised some excellent points and I wish that we had several hours here, because there’s so much richness in what he’s raised that I’d like to really to discuss this with him in detail. I think the one thing that really has puzzled me is this: why is Dawkins such an animus against religion? I find that very difficult to understand. Certainly in writing this book I did two things. One was I read everything he had written, including his D. Phil. thesis, which is actually very, very interesting, a model of evidence-based reasoning, and it made me realize that my own D.Phil. thesis wasn’t quite on the same level, but that’s another story!

I think also, looking at his earlier works, they were actually quite unemotional about religion: it was wrong, but that was it. As we progressed, particularly in the mid-80s, it becomes more aggressive, there is something evil, there is something deceptive here and, like you, I was puzzled by that because why is this the case? I must be very honest with you and say that I really have not found any publicly convincing reason for it. I can speculate, but it's speculation without evidence and therefore probably best not pursued. But I think it is a very interesting question – why is it that people, Dawkins in particular but others as well, do feel very aggressive about this particular thing? That's a question that we might want to debate in more detail.

I think moving on from there, Patrick raised some very interesting questions. From talking to Dawkins and reading his works it's very clear that Dawkins feels that there is no reason to propose God whatsoever and therefore that those who propose God are evidentially deficient and clearly have some sort of prior agenda – there is some underlying reason to bring God into things, but we can explain why people choose to behave like this in psychological or biological terms. As you all know, he offers some reasons for this and I personally don't find those entirely persuasive. There is a very interesting debate to be had here; I can't settle this for very obvious reasons, as to how one goes about enunciating what the best explanation of things is. In effect you are looking at a big picture explanation rather than simply a sort of this detail, that detail thing, and Dawkins is very clear that atheism is the best explanation. In writing the book I chose the title "Dawkins' God" deliberately because I was asking what concept of God does Dawkins reject? Actually historically, atheism does take the form of rejection of certain concepts of divinity. I find myself in the situation of actually agreeing with certain atheists that I don't believe in the gods they reject either, I don't believe there are different gods, so there is a very interesting question of what God are we talking about? In trying to clarify this I have to say I find myself really quite frustrated because there is a certain lack of precision as to what sort of divinity is being rejected. However that is a matter that we can talk about but I really find a lack of precision there.

Moving to Leo's point, there is a very interesting question and certainly when I was an atheist in my late teens, I would have agreed with you instantly that the self-evident position which requires no justification is that there is no god. Anybody who disagrees in effect has the responsibility to adduce evidence that points in their direction. Now I'm just not so sure. I think my feeling is that one is so used to working in the field of the natural sciences that, looking at the big picture and asking what is the best explanation and realizing that this is an extremely difficult question to answer, both in terms of the question of the aesthetic quality of the explanation offered, the question of the number of hypotheses one has to bring forward and so forth, but actually the God hypothesis is very difficult to dismiss. Therefore I'm not so sure the evidence is placed on those who believe in God to show this is superior to those who do *not* believe in God, but actually the onus really is on those who believe *anything* to show why anything may be believable, why *any* position may be brought forward and defended rather than simply saying the evidence does not permit us to reach a decision.

So that is a disagreement rather than simply a different perspective and I think really the question I find myself wanting to raise, having interacted with Dawkins and indeed having heard your very good presentation of the issues, is isn't it really the case that an engagement with nature leads us to a case where we say, on the basis of the

methods available to us, we cannot reach a safe decision on this. The evidence simply is not there, to point us in this direction or that direction, therefore either we say a decision cannot be reached or it has to be reached on other grounds. For that reason I do feel that atheism is actually a position of faith, in other words that one is saying we can actually reach a decision on this, and I would certainly agree with that one has to reach a decision, even though my decision now would be in a different direction to the atheist position. So I think my own feeling is that in the end, natural sciences leaves a position where we may move in the position of atheism, agnosticism, or some form of religious faith, but it actually necessitates us in moving in none of those directions. There's a sense in which the direction in which we choose to move can be consistent with what we observe from the sciences but is actually not necessitated *by* them, and therefore we need to provide a *reason* why we feel we can move in certain directions rather than others. Now I realize this is an immensely controversial area but I think it's a very important discussion to open up.

Denis Alexander: Would someone else like to come in on the question of the best explanation and what is the simplest or best explanation for something?

Kevin Dutton: I would like to raise a single issue on that. I am by no means an expert on Richard Dawkins and in fact have only ever skimmed through a couple of books, but on the idea of the simplest explanation I think I have actually encountered Richard Dawkins postulating evolutionary theory itself as a reason for God existing. I think he hasn't actually argued that the concept of God has evolved and actually has conferred on human beings a benefit in terms of reproductive fitness.

Alister McGrath: I have read some people who I would regard as being disciples of Dawkins arguing like that but I haven't actually heard Dawkins make that argument, and would suspect that it wouldn't really help his case very much. I am very happy to be challenged on this.

Patrick Richmond: I have read some literature about this – apparently Daniel Dennett suggests such an advantage.

Alister McGrath: That's right, but not Dawkins himself, I think.

Jonathan Howard: I wanted to say that particular context is rather familiar as an idea with what you said at the end of your talk, where you wanted to propose that there was actually a physiological advantage to religious belief and that would actually be consistent with this post-Dawkins' attitude that a belief in God has selective value. Personally I've no idea whether that's correct. It is a valid position actually: I think one can certainly argue on good Darwinian principles that certain kinds of ideas which unite society, which provide full and convincing explanations for the world around you have selective advantages. I don't think this is a Dawkinsian position formed by any kind of a natural selection, it's perfectly valid, so to speak, as long as the science remains untested.

Denis Alexander: Does anyone else want to come in on explanations and what are the best explanations for the Universe, our existence?

Jo Richardson: I think what I would like to say is that we seem to be talking as if we are sitting around trying to think up ideas about why we exist, as if we are searching around and we haven't quite stumbled on anything yet looking at what we can see in human evolution, or whatever it may be. You talked about there being an absence of evidence, but as a Christian I believe that there's overwhelming evidence for God and we said why doesn't he show us? Well I believe he has, ultimately, in Jesus Christ and for me, just to

look at Jesus Christ and his life and his death and resurrection is evidence enough for me, so I don't feel as though we are in a vacuum of anything that can tell us about God apart from our own thoughts. We are talking about the big picture – how can we see the big picture if we're only a part of it? The person who can see the big picture is God himself, so for Him to reveal Himself to us as He has done in Jesus Christ who is the logos - you talked about not really having the language to explain God, well the logos is in a sense the word, is the intelligence, is the language which God has chosen to communicate with us - so I don't feel as if we are searching for answers. God has revealed himself to us in a sense that we can find those answers, we don't have an absence of evidence. There is some evidence at least to be grappled with, depending on which conclusions you come to at the end of it, but there is certainly something that you need to examine before dismissing that there is any evidence whatsoever.

Kevin Dutton: Didn't Bertrand Russell, wasn't it he, who was asked what question he would ask God if he went to heaven and actually encountered him and he said Yes, the question I would ask is why didn't you give us more proof?

Andrew Wyllie: Is there an issue over what we would accept as evidence? I am painfully reminded that earlier this afternoon I was presiding over a practical in which medical students looked at a nasal polyp which, although it's an awkward thing to have, is actually a very beautiful structure when suitably stained under the microscope. It's beautiful from the point of view of the teacher of pathology because it shows some of the cells that mediate the reactions which give us all the symptoms – there's a lot of explanation inside that section which people like me pontificate about with amazing flights of rhetoric and a little bit of imagination. But what you see, stained conventionally, is only a subset of the key cells that drive the reaction and in this practical there was a specially stained section which shows the mast cells, which are otherwise almost invisible, they're there but there's nothing in the section that tells you that this faint little nucleus is the nucleus of mast cell and not of an macrophage? or a fibroblast or any of the other dozen names that pathologists put on cells and attribute functions to them. Only if you have the right sort of probe do you actually detect the evidence that is in front of you and I just wondered if that's a concept which, as a biologist, I could offer to the philosophers. Can we link over this issue of what we accept as evidence? If we have the ability to detect a signal, then there may be very clear evidence. If we don't have that ability, we don't know whether the signal's there or not.

Now, what Jo has just said is that Christians believe that there has been a signal, there is a signal, and it may be that personal circumstances or the whole process of maturation, or a million different things in the psychology of growing up as a human being, happen to convey the essential elements of the ability to receive that signal, but the signal is offered for our reception. That would be one's personal concept of how we acquire the evidence but we're limited. Does that make sense to the philosophers?

Alister McGrath: I'm very happy to make a provisional response and then to hand over to the philosophers. One of the things that I noticed in interacting with Dawkins is this that there is this very, almost an absolute, dichotomous mode of thinking. In other words, there is faith, which is zero per cent probability and there are scientific approaches, which are a hundred per cent certain, and I was just wondering what about the spectral possibility in between. You reason that there's a good probability of this, or let's try and explore this in this way, and I just felt that there was a sort of inattentiveness to the

provisionality and the probable nature of scientific reasoning at that point. But I think that the contributions that have been made round the table do raise a very interesting question, which is not specifically a Christian question (although clearly it does point in that direction) but it is how *can* one reach a decision about the meaning of life, or why I'm here, or what I should be doing, when the evidence actually isn't quite as clear as we'd like. In other words, we believe with absolute integrity there are very good reasons for what we think to be right but, no, we can't prove them. One of the authors I find very helpful here is Bishop Butler in his analogy of religion, basically saying you *can't* be absolutely certain in these matters, that probability is really the key issue. In other words, can you construct a world view which actually seems to chime in with what you believe to be right, what you believe to be proper and in effect live your life on that basis.

I think it's a very interesting question because Dawkins does speak with several voices, but one of those voices is very clearly saying you need to be *certain* about what is right in order to actually live your life. I'm not so sure we can be all that certain about all that many things, therefore the question is how can we actually begin to *live* life on the basis of things that cannot actually be demonstrated, not necessarily to our own conviction but certainly to the conviction of others, that these are absolutely true. I find that a lingering question, a very uneasy question, but one which I think we certainly have to wrestle with. If I take a point you were making there right at the end, as you were talking my mind went back to an essay many years ago by Basil Mitchell, who was formerly Professor of Philosophy and Religion at Oxford. He invited us to imagine a scenario in which a group of people behave in rather puzzling ways; there are a number of ways of interpreting this and you didn't know which was right, and yet you had to act on the basis that one of them was the case. There's this question of trying to decide what is the best way of explaining things and then say "If this is so I will live in this way" which actually propelled them in that direction.

Andrew Wyllie: I mustn't say too much but I was impressed as you were speaking, Alister. We are putting this in a very stylized and fairly rarified way, aren't we? We're talking about this as if it was a general problem and we're trying to keep back from too many specifics. If I might just touch on this, the very same approach is actually central to the gospel presentation in the scriptures. Mark's gospel actually starts with a little title beginning with "The glad tidings of Jesus Christ, Son of God". That's a title. But the actual evolution of the book is a series of presentations of evidence and people respond to that evidence in different ways. It's just unfolded in rather straightforward, limited vocabulary, sixteen chapters in a little book, and is exactly the sort of thing I think you're talking about. To me that's one of the pieces of evidence which convinces me as a reader, I suppose, that there is an intellectual satisfaction in becoming a Christian.

Alister McGrath: I think that's very interesting and find that very easy to go with. Certainly if you read Mark's Gospel, what Mark is doing is setting us alongside the disciples and in effect saying, look they heard this, they saw this and they thought this, but it wasn't good enough, so they thought this. It really is, if you like, an explanation of possibilities in which they gradually come to certain conclusions and certainly Mark's language is immensely unsophisticated. Virtually every sentence begins with the Greek words *Ky uthas?* and immediately it's like a higgledy-piggledy accumulation of events but the issue there is what is the best way of making sense of these, in other words this happened, this happened, he said this, he did that. What is the best big picture which

make sense of this? By the end of Mark's gospel we know what Mark thinks, what the disciples think and the question is really what do we think? Certainly it's this picture of trying to discern an overall picture which makes sense of this myriad of individual events which I think is both a very good model for Mark's gospel but actually is a model for life, because we're confronted with very similar issues. How do we construct this big picture which really locates the various things we regard as being significant and actually moves us on from there.

Stephen Evans: Just talking about the absence of evidence, what about going to the other extreme and saying, Yes, lots and lots of evidence here for God existing and people would perhaps go to the extreme, saying give me more evidence, they're never satisfied. So going to the other extreme and saying there's lots and lots of existing evidence and yet scientists are perhaps never satisfied that you've got enough evidence to form a hypothesis. How do you present that view to people, that people are never satisfied with having evidence?

Alister McGrath: I think that's a very perceptive question and again, really in ordinary, everyday life, we make that judgment all the time. One of the questions Jean Piaget is asking is how does a child learn to make these judgments. For example, it drops a pen, it falls to the ground and he does it again and again and again and he gradually forms a picture of what the world is like. It's a sort of accumulated picture based on evidence and experience, but you can never be absolutely certain about this. But it's good enough to live by and that really is the key question I find myself coming back to, given that we can't be absolutely certain. What is there we may *live* by and I feel that's one of the reasons in the end why I feel the Christian world view is actually the most persuasive. It's not knock down – in my arguments with Dawkins I'm absolutely prepared to concede that neither he nor I can prove our cases but the question then becomes well, what criteria might you use to try and adjudicate this question and, given that we have to live our lives in a certain way, can we actually suspect this matter perennially or is there some way in which we say well, at this moment it seems that the best way of looking at it is this, therefore we will live and act and think on that basis. I don't think that involves the abandonment of intellectual integrity, it really just means (as I was suggesting from the writing of Charles Gore) that we have a limited purview on this thing and therefore we need in effect to make up our minds on the basis of the available believable, to use a phrase of Paul Ricoeur that I find quite helpful.

Wang-Yen Lee: Are you actually saying that on the basis of evidential considerations and epistemic criteria, there's no way to come to a decision about whether theism or atheism is correct, therefore we are free to have faith in either position? So instead of epistemic or evidential criteria, we may appeal to other considerations in determining the direction of our faith. I think one of the possibilities is Pascal's Wager, which argues for belief in God on pragmatic grounds.

Alister McGrath: What I mean is that it's not just that we cannot make a decision. If we take the natural sciences, on that basis we aren't actually coerced to any particular position. All of them can be accommodated within certain ways of thinking, so really the question is do we simply leave it there or do we try and settle the question on other grounds? Again, as I'm in Cambridge, I ought to mention John Polkinghorne's name. I think Polkinghorne's position is quite interesting – he was saying look, as a physicist I've thought about this long and hard and I think there probably is a God and he gives some

quite good reasons for saying that. He then says actually that the clinching thing for me is this man called Jesus and he talks about what Jesus did and the Resurrection. He says, that for me really is the, to use an American phrase, “tipping point”, something which really moves me from one way of thinking to a slightly different way of thinking. I’m not for one moment suggesting that the natural sciences move us toward a kind of relativism, I wouldn’t dream of saying that, I’m simply saying that they move us in certain directions but don’t take us all the way. Therefore either we say we can’t go anywhere on the basis of this and therefore we stop here, or we say and therefore we move on to other grounds of adjudication in order to make these decisions. In practice that’s what most people do, they reach decisions on other grounds, for example the pragmatic utility or the economy of this particular conceptual scheme and so forth but whatever it is people do tend to make up their minds on various considerations. What I’m really suggesting is that we need to just try and identify what those considerations are so we can bring them to some form of critical examination.

Jonathan Howard: I was a little puzzled by this general idea of evidence-based faith and it seems to me that this is becoming something of an explicit controversy around the table about what are the evidences which constitute the essential jumping off point, as I understood it, for faith. Are they the kinds of evidence which confront scientists, or are they not? If they are not that kind of evidence then we have no disagreement; if they are that kind of evidence, as Paley’s analogical watch was that kind of evidence, then they do confront scientists and we can explain somehow the whole conflict. If we mean something different by evidence, for example the story in the Gospel, if that is the evidence, then it seems formally in no sense to be in the domain of science and therefore we can agree to interpret or use it in different ways.

Alister McGrath: I’m very happy to make a contribution but I think I ought to stand back and let others come in. I think basically Stephen Jay Gould is probably right, both as a matter of simple, factual observation scientists vary quite significantly in their religious view points. If you take the survey published in Nature a couple of years back forty per cent believe in God, forty per cent don’t and twenty per cent are not sure – there does seem to be a clearly observable disagreement within scientists themselves as to what the evidence entails. Therefore your question is very appropriate in that if every natural scientist, or most of them, said it’s clearly *this*, then that might actually be very significant but the evidence is there’s a variety of positions being adopted on the evidence and therefore the question will be, well what other grounds of appeal might there be, what else might count as evidence. I find it very interesting that if I can put it like this, the discussions that tend to take place are not necessarily focused on scientific evidence in that strict sense of the word but a broad sort of evidence which might include the following: I have a deep sense of longing which I believe might be a sort of covert or disguised longing for God, or I found immense consolation from belief in God following the death of my mother. Therefore it seems to me that this belief might have some pragmatic utility as well as some intellectual integrity. In other words, there’s a whole range of things which may actually carry more weight for one individual than for another. And so your question is very acute because it forces this question – is what is evidence for *you* evidence for *me*? Is there a sort of idiosyncratic dimension to this, that what persuades me might not persuade you. I think that’s a very interesting question to raise. Certainly some of the things that we might loosely describe as evidence actually might

not be in the public domain at all, it may be a personal and private experience, a personal way of looking at something which might not actually be shared by everybody else seeing the same event. I think that was a very perceptive question.

Jonathan Howard: Can I perhaps add something, and that is that the essential underpinning of a Christian belief is revelation. Is that not so?

Alister McGrath: Well, certainly I would say revelation is immensely important. But there's a certain sense in which one does some groundwork before that whereby a certain way of looking at the world has a certain initial plausibility which may move you in that direction.

Jonathan Howard: Does revelation happen philosophically at the same position as the hypothesis in the hypothetical deductive schema of epistemology?

Alister McGrath: I am happy to answer this question but I'm just conscious that there are others round the table who may wish to speak, but to give a quick answer I think on one understanding of revelation, it simply takes what we think we already know and moves us on by saying this is a fuller, more comprehensive presentation and it also breaks fresh ground. That's certainly one way of looking at it – it builds on what you already suspect from looking at the world but says we can take it further.

Harvey McMahon: We can also look a little bit with our scientific minds at the evidence for the historical reliability and archaeological evidence of the bible and the way it sits together. We can apply our normal sets of tools to that and see that if this makes sense, if it's actually something that as a scientist or as a historian we can actually dissect apart and say that this has to be true and that can be a basic point, something where we can start to step off and then work as any scientist does by making a hypothesis. We will therefore do any experiment and test something that works, maybe that happens to be an experiential sort of thing that we do. I think the point of view of believing at that point is exactly the same as you when you apply to experiment - I have exactly the same faith in what I do as in God.

Bob White: A lot of the best scientific hypotheses were originally founded on incredibly sparse data. Indeed, not infrequently some correct hypotheses have been founded on incorrect data, but the scientists involved had tremendous insight into the scientific problems and so come up with good hypotheses despite having inadequate or incorrect data. I think there's probably a lot to be said for looking at the Christian faith in a similar way to the way we approach our scientific work. In other words, we take sparse evidence and test it, as we do with scientific hypotheses and see whether it works and is fruitful in also explaining other observations and experience of the world in which we live. Having done this, many of us would say that, yes, the Christian faith does provide the best explanation of this world. For example, I may see a miracle in the timing of some event whereas the non-Christian might say that it was just coincidence. So I can't use that to prove the truth of the Christian faith, but I can say that the Christian faith provides the best explanation of the world, and that as I walk the Christian path it continues to be not only consistent but to surprise me in new ways with its truth. So I think that it may be helpful to consider religious experience as taking partial data and testing, in a not dissimilar way to the way we use data in scientific explanations.

Ard Louis: I was going to change topics slightly. One of the things you and a number of others have said tonight could be related to questions of "different ways of knowing", or different ways of approaching problems. I remember a talk from my undergraduate days

in the Netherlands, where a professor from Delft, Arie van den Beukel, gave the following example to illustrate how physics can warp one's thinking. Once his wife came to him and said "I've got a problem, I can't decide between A and B". Van den Beukel replied "There is no problem. Either A is better and you choose A, or B is better and you choose B, or they are the same, and it doesn't matter." Not surprisingly she wasn't very impressed! That rather simplified example stuck with me.

I've often found that the kind of thinking I do all day in the lab does not necessarily provide the most useful way to approach the complexities of human relationships or some of the important decisions we must make in life. It is simply not rich enough. Of course I am not saying that "scientific thinking", whatever that exactly means, does not have useful parallels that can be adapted for daily living. But I wonder if those of us steeped in its methods, and who know its power, may not be seduced into applying it more widely than we ought. Or at least that we tell ourselves stories about the "big questions" that sound true or feel good because they resonate with the type of scientific thinking we do in the lab, even if in everyday life we subconsciously use other criteria to get by. And I wonder if people like Dawkins and his ilk are playing these kinds of psychological games.

I realize that what I've said may sound hopelessly vague to a trained philosopher or theologian, but I would nevertheless be interested to hear a response.

Denis Alexander: We're getting a little short of time. I know Leo wanted to come in again....

Leo Dasso: I have a question. I wanted to understand how it happened that we moved from God to a Christian God and from the Christian God to assertions that the gospel's narrative – I'm not going to use the word mythology - is reliable historically, archaeologically, in any way. How did that happen? The very existence of Jesus as a historical character is very dubious. That Jesus was the Son of God doesn't just need a leap of faith, it needs a jump over Everest. How did it happen? I lost track, we began philosophically and now we are deeply into purely religion, we jump into the abyss of religion and all the narrative account with it, and I think suddenly it happened, and we've got to deflect it.

Denis Alexander: Alister, you've got just two minutes to answer all of that! I think perhaps the time has come to make some concluding reflections on some of the comments that have been made at the table and then we'll finish.

Alister McGrath: I think my concluding reflection is that I wish we had more time to talk about these things properly! I realize the limitations we are working under. Leo's final point is a very good one. I suppose part of the answer is that the philosophical discussion of the concept of God has actually been rather inconclusive and therefore we have to try and be more precise as to what sort of God we're talking about. Again I used the title 'Dawkins' God': my question was what specific notion of God is he dealing with and there is a limit to what we can discern by the idea of God. I think it needs amplification. Certainly the Christian amplification of the idea of God does go rather beyond the classical philosophical idea of simply an intern? of the issue of being so inevitably we're going to get on to specific conceptions of God at some point in the conversation. I think that's probably why we've moved in that direction.

The conversation around this part of the table about specifics, I think it's very important - if we had more time I really would have liked to have taken this further as it is

really such an important issue. Bob's point _ and I'm putting it in quasi philosophical terms _ about the determination of theory by data is a very tricky issue and the thing I keep coming back to is Pierre ? when he talks about the Bon Sense?, this idea of a gut feeling, that this has to be the right way, where in effect intellectually it's quite difficult to justify. You used to have to sense, based on a long period of engaging the issues, that this is the right way ahead, this works, and it's very difficult to actually justify that, but on the other hand it works. I think that's a very important point to make, that actually sometimes based itself on relatively new observations, you just have the sense that this is going to make sense. Of course in the end you're postponing the question of how one might verify that but it's certainly true, as you're so rightly saying, that theism involved science and there are a number of seriously underdetermined theories which actually in the longer term prove to be quite acceptable.

The point you were making, I thought was a very good one – how one answers that I don't really know other than to say that I think that in the end you have to recognise the way in which we live our lives actually does involve taking a degree of faith. In other words, one can't actually prove that this is right but life has to be lived in a certain way, I believe this is the right way, and therefore one has to get on with it. I think that actually, no matter what your position is on Christian faith or atheist faith, in the end you are taking a view like that. I do have anxieties about the position that one says you have to be absolutely certain of everything before one can begin to do those things because I don't think we're ever going to get to that point where we can be absolutely certain. Therefore we say that this seems to me the best way so I'm going to run with it and see where it take me.

If I could just conclude, your questions have been much better than my answers! I just wish we had more time to explore the issues further. I am extremely grateful and extremely honoured that you have come along tonight to talk about these questions. Thank you for that.

Denis Alexander: Certainly we would like to thank Alister very much indeed, both for the lecture and for carrying on working late into the night with us on these pretty big topics.

Dinner/Discussion Guests

Prof. Alister McGrath, Professor of Historical Theology at Oxford University. After studying chemistry as an undergraduate, and undertaking doctoral research at Oxford in molecular biophysics, Prof. McGrath went on to specialize in Christian theology with a special interest in the relation of faith and science. His recent books include: *Dawkins' God: Genes, Memes and the Meaning of Life*. (Blackwell); *The Twilight of Atheism* (Rider – an imprint of Random House); *The Science of God: An Introduction to Scientific Theology*. (Continuum); *Christian Theology: An Introduction* (Blackwell).

Dr. Denis Alexander, Fellow of St. Edmund's College and Head of the Laboratory of Lymphocyte Signalling & Development, The Babraham Institute; Editor of the journal *Science & Christian Belief*; author of *Rebuilding the Matrix* (2001, Lion).

Dr. Ruth Bancewicz, MRC Human Genetics Unit, University of Edinburgh; CiS Development Officer.

Prof. Simon Conway Morris FRS Professor of Palaeobiology; author of *The Crucible of Creation* (1998) and *Life's Solution – Inevitable Humans in a Lonely Universe* (CUP, 2003).

Rev Dr Geoffrey Cook, Vice-Master St. Edmund's College, research in developmental neurobiology

Prof. Leo Dasso, Dean of Medical Sciences, Kigezi International School of Medicine.

Dr. Kevin Dutton, Executive Secretary of the International Society for Science and Religion; Senior Research Associate in the Divinity School; research in evolutionary psychology.

Dr Stephen Evans, Biologist studying the human knee using magnetic resonance imaging at the Herchel Smith Laboratory for Medicinal Chemistry.

Prof. Jonathan Howard, Head of the Institute for Genetics at Koln University; presently on sabbatical at LMB; author of *Darwin – a Very Short Introduction* (2001).

Wang-Yen Lee, St. Edmund's College MPhil student, preparing a thesis on the relationship between scientific and religious knowledge.

Prof. Peter Lipton, Professor and Head of the Dept. of the History and Philosophy of Science; Fellow of King's College; author of *Inference to the Best Explanation* (Routledge, expanded second edition, 2004).

Dr. Ard Louis, Royal Society Fellow in the Dept of Chemistry; Director of Studies in the Natural Sciences at Hughes Hall; research in theories of soft matter.

Prof. Paul Luzio, Master of St. Edmund's College; Professor of Molecular Membrane Biology; Director of Cambridge Institute for Medical Research.

Dr Harvey McMahon, Group Leader in the Neurobiology Division at MRC LMB; research in the molecular mechanisms of endocytosis.

Dr. Jenny Pell, Project Leader in the Laboratory of Molecular Signalling at The Babraham Institute; research in myogenesis.

Jo Richardson, Emmanuel College, final year PhD student in cell biology at the Wellcome Trust/Cancer Research UK Institute.

Revd Dr Patrick Richmond, Chaplain of St. Catharine's College; formerly read medicine and did a DPhil in cell physiology at Oxford.

Dr Sophia Shellard, teaches pharmacology part-time for Cambridge colleges; formerly postdoctoral researcher in neurophysiology at the Department of Pharmacology.

Prof. Bob White FRS, Fellow of St. Edmund's College; Dept. Earth Sciences. Leads a research group investigating crustal structure of the Earth, earthquakes and volcanoes. Co-author with Denis Alexander of *Beyond Belief: Science, faith and ethical challenges* (Lion, 2004).

Prof. Andrew Wyllie FRS, Professor and Head of the Dept. of Pathology; research in apoptosis.