

The Battle for Truth?

Panel Discussion

St Paul's Cathedral

Tuesday 7 October 2008

Transcript

Panellists:

Nancy Cartwright, Professor of Philosophy, LSE and University of California

Nicholas Lash, Professor Emeritus of Divinity, University of Cambridge

John Milbank, Professor of Religion, Politics, and Ethics, University of Nottingham

Roger Trigg, Professor in the Faculty of Theology, University of Oxford

Chair:

Lucy Winkett, Precentor, St Paul's Cathedral

Graeme Knowles

Good evening ladies and gentlemen, for those of you who don't know who I am my name is Graham Knowles. I am the Dean of this cathedral and I am here to welcome you on behalf of the Chapter, but also on behalf of the panel that you see here on the stage this evening. It's very good to be able to welcome you to this evening for the opening of our panel discussion in the St. Paul's Institute's series Seeking Truth: Science, Mystery and Human Identity. It's very good also to welcome the distinguished panel of speakers who you see before you, who Lucy Winkett, who is the one in the middle wearing the clerical collar, will introduce to you in a minute or two.

The relationship between science and religion is a perennially important question and this evening's discussion goes right to the heart of the matter by asking, what is science? what is religion? and what do they have to say to each other when there is genuine dialogue, and when they each let the other take the floor? Where better place really to have this discussion than under the Great Dome of St. Paul's. Wren and his friend Hooke worked on the maths and the science, and the astronomy, of this building to get it right to the glory of God as a place where the worship of almighty God could be carried out. And so, it gives me great pleasure to welcome you here and also to hand over to Lucy Winkett who will introduce the panel.

[Applause]

Lucy Winkett

Thankyou very much indeed Mr. Dean. We're hoping for a very lively discussion tonight and there's plenty of opportunity for you to join in. For those of you who have not been to our events before, let me just explain the format to you so that you know how we are going to run tonight. In just a moment, I'm going to ask each of our speakers an opening question, which they will then reply to for about 5 minutes each after which we'll move into a panel discussion between our speakers. Then, for the second part of the evening we'll take questions from the floor. If you have a question that occurs to you at any stage during the evening, please would you write it on the back of the white leaflet that you've been given as you came into this debate. When you've written down your question just hold it up, and those will be collected throughout the evening and we will put them to the panel later on. We're going to collect questions until about 7.20pm, so if you have a brilliant thought after 7.20pm it's too late. Please have your brilliance before 7.20pm and do please try to keep the questions brief and we'll get through as many as we possibly can in the course of the evening. We're going to end promptly at eight o'clock, but before you leave do please visit the book stall at the back and please also do, if you can, give generously to our retiring collection which is for our own education department here at St. Paul's, which sees around twenty five thousand school children every year. So if you'd like to contribute to that work, please do contribute to that on your way out.

There's other information about this evening and the whole programme in your leaflets, including how you can hear a recording of tonight's debate on Premier Radio this weekend and also get a transcript if you'd like one from our website. If you'd like to find out more about this series, which includes more debates and study days, please do fill in the form that you have in your leaflet and hand it in at the end or when you submit a question. We'd also like to take this opportunity right at the beginning of the evening to thank The Templeton Foundation for their generous sponsorship of this whole programme.

So now on with the debate, it gives me great pleasure to introduce all of our panel, which I will do now before they speak. On my right, Nancy Cartwright is Professor of Philosophy at the London School of Economics in the department of Philosophy, Logic, and Scientific Method and at the University of California. Her first degree was in Mathematics, her research interests include the philosophy and history of science and her books include the provocatively titled *How the Laws of Physics Lie* and *The Dappled World: A Study in the Boundaries of Science*. Next to me, Nicholas Lash is Professor Emeritus of Divinity at the University of Cambridge. A prolific author and distinguished Roman Catholic commentator who writes frequently in *The Tablet*. He is reportedly one of the few Catholic theologians, he says one of the few theologians at all, to have read the whole of Carl Bart's *Church Dogmatics* and Karl Reiner's *Theological Investigations*.

John Milbank

I've only read about ten pages of each...[*laugh*]

Lucy Winkett

Somebody who might disagree with him about that is John Milbank, who is professor of Religion, Politics, and Ethics at the University of Nottingham and Director of the Centre of Theology and Philosophy. His controversial book, *Theology and Social Theory*, in which he resists the idea that secular norms should set the agenda for theology has been variously described as 'brilliant', 'sprawling', 'a tour-de-force', and 'thoroughly upsetting'.

Finally, Roger Trigg is directing a research programme at Oxford and he's also Emeritus Professor of Philosophy at Warwick University. His last book *Religion in Public Life: Must Religion be Privatised*, dealt with the issue of the public recognition of religion in a pluralist society. He's now writing a sequel about the burning issue, his words, of religious freedom.

Would you please welcome our panel.

[*Applause*]

And so for our opening questions and answers. First of all, Professor Trigg, how has the relationship between science and religion changed? And where is it now?

Roger Trigg

Well thank you very much, it's very appropriate that I think I would be asked this question in this great cathedral. It dates from the 17th century and takes us back to the beginnings of modern science. Now, if you think of modern science as starting with people like Newton in Cambridge, the people who founded the Royal Society here in London, you can see that actually they were people who didn't see a fundamental distinction between religious faith and science because they were motivated by their own faith to do science. It wasn't altogether always an orthodox faith, but it was a faith in a God who'd created the world around them and empirical science was needed to look to see how God had made that world. One of the slogans of philosophers and theologians of the time in Cambridge, called Cambridge Platonists, was that 'Reason is the candle of the Lord'. Now you can see in that slogan that they didn't see that reason was on the one side, and faith on the other - a split that I totally reject, I don't think faith is apart from reason, it's rational itself.

But, of course in the 18th century things got more complicated. The Enlightenment developed in such a way that reason became something that people thought was opposed very often to religion and to the authority of religion. Instead, people thought that you should rely on your own reason, you should rely on human science - not for instance on the authority of the church. So the term 'Rationalist' has become, instead of just somebody who believes in reason, it looks as if it's a term that's almost synonymous with atheism. Now that itself has had a great influence and when I myself was an undergraduate at Oxford logical positivism was still itself something that was affecting a lot of people, that science itself was in fact what determined what counted as meaningful and true. And that view, which I don't think can even explain science, has influenced a lot. I think it still for instance influences people like Richard Dawkins who see evidence as only scientific evidence, reason is only scientific reason. I reject that, I think you have got to see reason and science much more widely.

Where are we now? Well, in the 17th century people didn't see science and religion in conflict. Later on perhaps they did. As a result, people have tended to say 'well, perhaps science and religion are answering different questions'. Religion asks 'why?', science perhaps asks 'how?', but they don't meet. I, on the other hand, look to try and get science and religion not just in dialogue with each other but actually supporting each other, and in particular I would want to say that science itself actually needs Christianity - a bold statement - but why is it that we're so sure that the world is regular? Why is it ordered? Why is it such that we, human beings, can understand it? Why is it comprehensible? All those things need explanation. If you believe in a God who created us in his image, you can begin to give an explanation. It was a view that the people in the 17th century held and it motivated their science. Without it, it's not clear where science itself is standing and what its justification is. So science actually needs religion, and of course religion needs science to tell us how the world actually is. So, I myself don't go for conflict, I don't go for separate ways, I say we ought to be talking to each other.

Lucy Winkett

Thank you very much. Professor Cartwright, what do we mean by science? And how far does science go towards explaining the world in which we live?

Nancy Cartwright

My predecessor at the London School of Economics, Karl Popper, had an answer to that question. Popper explained that science, scientific claims, what singled them out from among others was that they should be falsifiable. Falsifiability has to do with the amount of detailed, specific, empirical content

there is in a body of claims. So there were two aspects of this that were very important; one was that scientific claims, as opposed to others, should have very concrete empirical implications. Concrete, and specific in the sense that they should be about singular facts that really had to have an answer for sure one way or another. The Dean is six foot, one inch, tall - that's the kind of claim that Popper was interested in. It's bound to be either yes or no. The charge of this electron is 'x' or 'y'. So the first thing was that they should be specific about empirical claims, scientific knowledge should imply specific empirical claims, and the second was that they should be very precise. Precise in the sense that they were very narrow. So for instance, if your body of thought predicts that the Dean is 'over four foot tall' that's far less precise than predicting that he is 'exactly six foot one point two three inches tall' and that's what's called falsifiability. It's so much easier to be wrong if you make a very precise claim.

Now this distinction between science and non-science was called the 'demarcation condition' and it's been out of fashion since I've started in the field, people say 'well there's no demarcation criterion, it's a sliding scale, and etc.'. I don't believe that, I've now come back round to believing in Popper. The reason for that, Popper himself tended not to argue for it but rather to give examples, he was very keen to get examples in the physics, chemistry and what he thought of as the good bits of biology and he liked his criterion because it pushed out, in his mind, the things that he was opposed to which were Marxism, religion, and Freud. Those were not scientific because they didn't make these specific and precise empirical implications. Now, I've come round to believing that Popper's distinction is a useful one in thinking about what science is because although I think understanding the world is important, the thing that really grips me about science is that it helps us not only understand the world but change it. I studied quantum physics for a long time and loved it very much, but one of the reasons I love it is because it allows us - it participates in the body of knowledge that allows us to - build lasers and I can get my eyes operated on with this laser. Or magnetic resonance instruments. Now, you can see why if you were interested in that kind of precise way of changing the world you'd, like me, come to buy this demarcation criterion because if you want to build a laser - you want to predict that you're going to put the plug in and you're going to get a coherent beam out the end - you need a body of knowledge that is able to produce very very precise and very specific empirical claims. So, that's why I've come round to thinking that a good way to think about at least one central important aspect of science is that it should be falsifiable.

If you join that with the other question that I was asked, which is how far science stretches, well I have a belief that we don't know whether science stretches all that far. I'm not thinking about the big questions like where we came from, how it all started, what's the meaning of life, or even how to settle moral dilemmas, or even a more concrete question 'is water-boarding torture' - I'm thinking of the kinds of questions we normally think of as in the scientific domain, and that's because if you look at the cases, like lasers or even flashlight batteries, in which we see science making these very precise, very

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specific, reliable predictions they are always in very very controlled environments and usually in environments that we build ourselves. That's not surprising, because if you want to have a very precise prediction about what the effect would be you'd better be very clear about what the causes are and how those causes relate to that effect. That means, that you'd better see to it that the environment only admits causes you can describe in the language of science. Now, people that thought that everything actually can be described in the language of science - that's what people who think that science stretches everywhere and can explain everything and, *in principle*, can predict everything in the empirical domain - and I simply don't see enough evidence for that. I see very good evidence that we can build a laser, and very good evidence that we can do magnetic resonance, but to go beyond that and say 'well, secretly all these things that don't look describable in the concepts of physics if only we could see inside as Adam could we would be able to see that they're describable in the language of physics'. So, I think that if you follow Karl Popper's insistence that science should make very specific predictions of a very precise kind then you might well be a little dubious and think we don't have enough information one way or another about how far science can stretch, even to do the job that it would like to do.

Lucy Winkett

Thank you very much. Professor Lash, what do you as a theologian understand by science?

Nicholas Lash

A preliminary definition which is deliberately drawn very widely, I'd want to describe science as the disciplined and critical investigation of reality. Elsewhere in Europe, not in this country, but elsewhere in Europe it is generally appreciated that reality is vastly varied and that therefore the methods necessary to critically investigate reality in an appropriately disciplined way are themselves going to be vastly varied. That is why the range of reference of the concept of 'science' in French or 'scienza' in Italian, 'Wissenschaft' in German, covers the entire spectrum studied in any decent university. It's only in the English speaking world that we've got into the habit, and I think it's not a very good habit, since about sometime in the 1860's we've got into the habit of talking of science in the singular instead of clusters and ranges of sciences. That encourages us to suppose that there must be some sort of central or normative description of the scientific - physics is at the middle and things get fuzzier the further you move from physics but isn't it all science - and then over there is something else called 'arts'. Reading some of the stuff that I do, I get the impression there are people who think that universities are exclusively populated by particle physicists and poets.

I think that the whole framework within which the debate about science and religion is usually cast in this country at the moment is a confusion of two quite different sets of issues and they've somehow got jumbled. One set of issues concerns the way in which we might describe the relationship of various academic disciplines, sciences if you're French or German, to each other. So you might ask what the relations are between physics and philosophy, or geology and theology, or whatever. That is one set of issues, trying to work out the best way to categorise and promote relations between different sciences. The other set of issues, which is entirely different, concerns the tension between commitment and the sort of distance that critical thinking requires. But that tension exists just as much in politics, and in private life - in friendship for example - as it does in religion. I think somewhere our formulation of the science and religion debate tends to take the form of some kind of rather muddled fusion of those two very different sets of questions.

Lucy Winkett

Thank you very much. Finally, Professor Milbank. As a theologian in a scientific age, has your outlook been shaped by advances in science? Are there areas of life which you think science simply can't explain?

John Milbank

I think that I've been more shaped in general by reflection on the entire history of science, and I'd like to say something about ways in which things can be perfectly, naturally, scientific and still not be fully explained. But first of all, I want to very very strongly agree with what Nicholas Lash has said I think this is the most important starting point. It's not actually at all clear what science is, it's better to think of science as any disciplined critical approach towards diverse subject matters and these subject matters, as Nicholas says, tend to dictate different emphases, different strategies. One could even say that all these disciplined approaches involve a mixture of observation, experience or experiment (they're the same word), intuition, speculation, and this is true of theology as much as it's true of physics that's one reason why traditionally theology has been described as 'scientia'.

But just why is it then that in all countries, and to a special extent in this country, we do think there's something special about natural science? I do think in the end that it's not so much to do with falsification, which actually I think can be readily challenged. I think it's much more to do with sciences linked to technology, and therefore the way in which natural science seems to involve abilities to predict and control things - that's perhaps put too much from the human side, perhaps what we should say more is that it involves repeatable processes which are as much the action of non-humans as they are the action of humans. I think also natural science, alongside mathematics, is associated with

clarity, with clearness and distinctness. Sometimes these two things, experimental or technological success and clarity, are in tension with each other. When it comes to the history of science, it's clear we mustn't be chauvinistic, there was something like natural science in ancient China, in ancient India, obviously in ancient Greece. Nonetheless, I do think there are certain connections between Christianity and the extraordinary triumph science and technology in Western Europe, I think there are three things here worth mentioning very quickly and two of them are actually with Francis Bacon. First of all, there's the idea that Christianity supports a charitable approach to nature, in other words an approach to nature that is working towards human benefit. So this emphasis on practice and technology is I think actually far more important than any theoretical stress. There's also the idea of the fall, the idea that somehow because of the fall the real nature of reality is hidden from us, and therefore sort of esoteric and counter-intuitive procedures are going to be necessary to recover the knowledge of Adam. This is an incredibly dominant theme in the 17th century. But the third thing I'd like to mention is actually a source of tension within theology with respect to the natural world. This same tension also reflects the history of natural science.

So the main tension in Western intellectual history doesn't run between science and religion, it runs down the middle of both these things with both disciplines sometimes being on one side or the other. This is the tension between the idea that the cosmos is kind of a natural bible, it's inscribed with signatures of God, with symbols of God. That the natural cosmos participates in God and it's full of all sorts of hidden occult forces which express the working of God. You've got that idea, which can be seen as theological, on the other hand you've got the idea - the stress on the absolute freedom of God - the idea that the universe doesn't tell us anything about God except that God has created it and because God is free he could create the universe any way he liked and the universe doesn't reflect God. This usually goes along with the idea that the concept of occult forces, powers in nature, are semi-pagan. So to a surprising degree in the 17th century, and I think that this was an enormous mistake, both Jansenist Catholicism, or Augustinian inclined Catholicism, and Protestantism tended to back a mechanical picture of nature and I think this is actually one long term source of atheism. Now, in this respect we've got to say that this is also a tension that runs through science as well. Sometimes natural science will accept things that can't be explained if they're linked to repeatable processes and if they're linked to technological outcomes. Lasers are a really good example, they're linked to quantum physics but quantum physics is full of all sorts of mysterious things that we can't explain. It seems to be that when people say that Newton was the last of the magicians this gets it wrong and actually the history of modern physics, from about the middle of the 19th century onwards, is the history of the return of magic and the revenge of hermeticism. It's not an accident that people like Niels Bohr were profoundly influenced by romantic philosophy. Quantum physics is full of action at a distance, mysterious isolated elements, quantum leaps that are inexplicable in mechanical terms.

I think there have been two theological reactions to this, first of all there's the disappointment of people like Polkinghorne who are still Newtonians and basically they think that this is kind of incompatible with God, that God doesn't play dice and all this. On the side of Einstein who represents the sort of pinnacle classical physics, but they don't really like the anarchic implications of quantum mechanics. On the other hand there are theologians like me who feel this much more points us back towards divine mystery, and I think that the history of modern natural science itself - in biology as well as in physics, if we discount Dawkins who's a very poor biologist - that the history of modern physics and biology itself tends to throw asunder this kind of stupid philosophical image of science, which is that there are objects over there which we clearly perceive and we are subjects who can clearly picture those facts. Whereas I think that on the contrary, what science supports is the idea that there are interactive events between people and 'inhumans' - let's call them 'inhumans' rather than objects - and truth as it were lies in between, it lies in these events of interaction and this introduces a historicity into things as well as into the actual people. So, the only philosophers who really got this right and the only philosophers tending to survive the 20th century are people like Whitehead and Bergson who are much more in tune actually with what the natural scientists were saying. Maybe to some people's surprise, I actually have a rather positive view of what modern natural sciences tended to suggest, if not modern social science. Thank you.

Lucy Winkett

Thank you very much. We're going to attempt to pick up some of the themes that each of our speakers have raised, we've clearly heard something of rehearsal of the history of science and perhaps the more modern separation between science and religion. We've heard a definition of science as a body of knowledge that is falsifiable and we've also heard a challenge to the very framework of the debate. Could I perhaps turn to Professor Trigg first of all and ask you to respond to Professor Cartwright's assertion that science is a body of knowledge that is falsifiable - we've already heard Professor Milbank challenge that - but, how would you respond to that as a definition of science?

Roger Trigg

Well without getting into a lot of kind of technical objections to it, I think it's a good working definition; I'm happy with it in a way. But it is a definition not between what is true and what is false, but what is science and what isn't science; I think there are other paths to truth than science and I think Popper himself wasn't trying to say that the rest was false, it just wasn't science. That's the important thing, but certainly it's very clear that things masquerade as science sometimes - Freud and Marx certainly did - and it's rather illuminating to have it pointed out that it's very difficult to falsify their theories and therefore exactly what are they saying. Although, if I could just take a more general point, the challenge that even to Christian faith what would ever have to count against it? If nothing ever

would count against your faith, either in this world or a world to come, you've got to think what exactly are you asserting, what are you ruling out. If you're including everything, perhaps you are including nothing. So the whole issue of falsification does I think raise the question what exactly are we claiming sometimes.

Lucy Winkett

Professor Lash, can I ask you to comment on that not just definition of science but perhaps even definition of theology as a form of science - what is falsifiable in theology?

Nicholas Lash

Can I pick that one up by speaking directly to what Professor Cartwright was saying, because it seems to me that French, German, Spanish, Italian physicists are as good at their job as British ones and they know what they are doing. But they live in a culture where they are not the only people to describe what they do as 'science'. In other words, Popper's demarcation criteria which Professor Cartwright outlined for what forms of enquiry count as scientific seem to be entirely excellent criteria for a particular cluster of disciplines but the reason why I think it's very important that we don't limit - as only the English speaking do - the concept of science to those disciplines is because at the end of the day after-all the word science comes from the Latin word 'scientia' which simply means 'knowledge'. If we allow that only certain forms of enquiry are properly called scientific, if we succumb to this peculiarly English speaking disease, before we know where we are we shall find ourselves persuaded or people will be persuading us that only those enquiries lead to knowledge and *that's* the very dangerous trap that I think we are sometimes in danger of being sucked into.

Lucy Winkett

Just before I ask Professor Cartwright to respond to that, and particularly highlighting that danger, Professor Milbank could you say something about falsification; perhaps in terms of theology and science?

John Milbank

Well I just don't accept at all that natural sciences are defined by falsification, I follow the line of people like Farab and Heer who I think were building on the work of the most sophisticated sciences themselves, people like Hans Mark, nothing can be falsified because there always can be an exception. The point is about experimental confirmation is that it verifies something up to a point. I mean the accent is really always here on the positive, it shows that something is repeatable. To some extent here

we're talking about reality, but the idea that anything ever can be absolutely falsified is not true because it's always possible that you can rejig your experiment, that you can discover that there was an alien factor interrupting the experiment; it's never possible to design an experiment that is free of all alien extrinsic factors. Just to take an example from the history of science, in the middle of the 19th century most people thought that it had been conclusively shown that organisms were not involved in the processes of fermentation, that this was an entirely chemical matter, and then Louis Pasteur came along with another kind of experiment which appeared to show that indeed there was some kind of organic entity involved here. So, I just don't think that the history of science goes along with this idea that any theories are ever absolutely rendered out of date, dispatched for good, they have a habit of always coming back.

Lucy Winkett

Professor Milbank has said nothing can be falsified, could you respond to that Professor Cartwright?

Nancy Cartwright

I think he's obviously right, and it's the standard lesson that we have been teaching in philosophy - and Popper himself had exactly that view - so the demarcation criterion has nothing to do with whether anything can be absolutely and finally falsified but has to do with the kind of detailed content that you can get out of some domains of inquiry versus the lack of precision and detail in others. Whatever detailed content you get out of a body of knowledge, and whatever it makes you feel about the background body of knowledge - the theory - that generated those very detailed and precise predictions, whatever you feel about how close that relationship is the point is that some bodies of knowledge will help us make very precise predictions that will allow you to build a laser and some don't. Both kinds can be very subject to critical discourse and critical discussion...

John Milbank

They're verifiable rather than falsifiable...

Lucy Winkett

To Professor Lash, then to Professor Milbank.

Nicholas Lash

My only quarrel with that is it's as if you are working with a single value notion of precision. I want to go all the way back to Aristotle, there are many different kinds of precision. It is possible for philosophical argument or literary criticism to be as precise as anything a physicist does with a different kind of precision.

Nancy Cartwright

But precision is a different point, so this has only to do - I think Popper nor I would want to make any claims that other disciplines, other ways of approaching material are not precise, that they're not critical that you cannot have very logical arguments - it's rather that there's a concept of what it is for an empirical claim to be very very very narrow.

Nicholas Lash

But why does only the English-speaking world think it appropriate to restrict the use of the concept of science to this very important...

Nancy Cartwright

Perhaps this question doesn't really matter, so long as we recognise that there's a thought that some bodies of knowledge can give you very precise and empirical knowledge of the world - always defeasable of course - and some proceed in other ways and the kind of claims that are produced are not very narrow empirical claims of a kind we want to have for certain purposes.

Lucy Winkett

Just one more comment on this issue of falsification and precision in science and theology. Professor Milbank would you like to comment on that?

John Milbank

I don't really have anything to say on that I don't think...

Nicholas Lash

Could I pick up something else John Milbank said earlier about the notion of 'the freedom of God', which I think is a very important notion and was in the 17th century because one of the interesting *Battle for Truth? Transcript.doc*

questions is why did modern science develop when and where it did? John's mentioned that there were other, perhaps, aspects of science in other cultures; but science really as we know it came from a very specifically Christian context and I think it's an interesting question to think could it have come from any other context? But, one of the reasons why it came from that context was that people believed that God was free, he didn't have to create the world in a particular way, then how did you find out about the world? Well, you certainly didn't sit in an armchair working out what *had* to be true, what was necessarily true, which is roughly what the Greeks had done and that's why they liked geometry. What you had to do was get out in the world and look, observe and test to see how in fact it had been made because it didn't have to be made like that and that seems to me a very great motive for empirical science.

Lucy Winkett

That raises a question of the place of experiment perhaps in the theological world, would either of our theologians like to comment on the place - it's a method question - but the place of experiment and testing to reach a conclusion in theology rather than science which is a more obvious way to do that?

Nicholas Lash

Truly theological claims will be tested in something more like the ways in which, for example, philosophical claims are tested; historical claims are tested; literary critical claims are tested, than I think claims of physics and chemistry are tested. But that, if we are talking about serious academic, critical investigation, that claims made in any discipline need to be subject to testing is part of what it is to be seriously critically articulated claims I think.

John Milbank

It's interesting that there's a very strong connection between the puritan stress on inner experience and their like for experimental science and I think possibly the danger in either case of an over-stress on those things is that it's at once too sort of individualistic and too atemporal. That somehow, to the individual observer - the individual experiencer of God - is going to be delivered now some eternal verity and the problem then is that you're cutting yourself off from the mediation of tradition; the experience of everybody else, everybody else's observations, the refinement of concepts and so on. That actually applies to natural science as well as it does to theology. There's a danger of too Protestant an approach to experience...we need a more Catholic one.

[Laughter]

Nicholas Lash

A very general remark about evidence here, because in his book *The God Delusion* Richard Dawkins who defines faith as belief without evidence - not I think a definition acceptable to any true Christian or Muslim, but let us put that to one side - he never even asked the question, what would count as evidence for God? Now, you can ask what would count as evidence for the Loch Ness monster but if the mystery of God is the mystery of the loving creator of the world as Christians, and Jews, and Muslims believe him to be; the question of what would count as evidence for God is both important and enormously difficult to bring into the right kind of focus. I think that, where Christian theology is concerned, at the end of the day because God, Christians believe, not only if you like creates the world, but lovingly creates it, the evidence for God simply is the world and that's why the mystery of evil is to be struggled with. I think all good theology has to begin in the Garden of Gethsemane for this reason, but the evidence for God is not something odd knocked on the door - we've found something we haven't found before - but simply is the world as it is.

Lucy Winkett

Can I just pick up a point there you were just touching on, which is leading on from the concept of experimentation in science and in theology. One of the things that Professor Cartwright I know you've mentioned is that scientists do their experiments out of context, and so context is very important when you're determining how something might act in the world and if you rarify the experiment too much you don't learn much about the world. Could you comment on the importance of context in scientific endeavour? And then I'm going to come back to the theologians and ask them that same question.

Nancy Cartwright

I think that context is very important because, what I purport to have noticed in studying successful science and its connection with technology which is what Milbank has just stressed as well as I, that context matters terrifically and we can't be at all certain that once we're outside of the context where we have control the very concepts that we've invented - which have good descriptive hold in special contexts, which are very highly shielded - will be sufficient outside in a broader context. I think one of the problems in thinking about faith and evidence that Richard Dawkins has is that I think he's altogether too optimistic about the relationship between the kind of evidence he has and the very broad kind of scientific theory that he wants to build on top of it. The very thing that Milbank said that almost any connection here can be shifted by just making different background assumptions in the middle ground. The further up the ladder of abstraction you go and the more you expect your theories, the broader range of things you expect your theories to talk about, then the shakier will be their support from a handful of evidence.

Lucy Winkett

Professor Trigg, you said that science needs religion, religion needs science. Is there any correlation that you can see about Professor Cartwright's discussion about context in experimentation and the need to set theological endeavour in context?

Roger Trigg

I don't see really how quite the notion of context comes into what I'm saying actually, I don't quite see the connection there I must be honest.

Lucy Winkett

Fair enough. I think what I'm asking is whether there is anything to be learned from the assertion that Professor Cartwright is saying, that a scientific experiment out of context doesn't help you with knowledge of the world outside sufficiently, but you can rarify it to the extent that you don't learn. If the world is evidence for God, as Professor Lash was saying, it's an exploration of whether context is important.

Roger Trigg

I take it that in almost any discipline Professor Cartwright's point holds good; namely, the more abstractly your remarks hover a safe distance from the facts...this is a disease that I think can inflict any discipline, it really is, and the fact that it's so easy to catch this disease is one of the reasons why the question of evidence for God is so enormously difficult to handle with any accuracy or appropriate precision. Just one more thing if I may on a related topic I think, what is the context of the question does God exist? Dawkins seems to suppose that if you think God exists you must be a religious believer. Well, as St. Augustine pointed out fifteen centuries ago, the devils know that God *exists*; the question has nothing to do with faith in God at all, it's a quite different question and I say that because you need to shift the context in which it is asked to see that I think.

Nicholas Lash

I could perhaps just go on to say that I think this notion of evidence and scientific theory, which Dawkins particularly goes on about, betrays a rather touching basis in logical positivism whereby he thinks you can deduce theories from evidence. It isn't like that, you can't get evidence and then deduce logical a water-tight theory and for the last forty years philosophers of science have been talking about how evidence under-determines theory; theory always outstrips the available evidence, there are always

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alternative theories that could be based on the same evidence. So science is never as water-tight as Dawkins would have us believe, and even holding a scientific theory may be rational but it isn't rational in a tight logical sense and it becomes perhaps sometimes much more like having a metaphysical view or a belief in God.

Nancy Cartwright

Roger, can I just have one second to get what I think is the history straighter and to defend that logical positivism had exactly the same view as Popper that you couldn't deduce scientific conclusions from the facts. Dr. Neurath, who was one of the founders of the Vienna Circle, made a big point about how the most that you can do between a hypothesis and the facts is that the facts might shake the hypothesis a bit. So the view is already there in positivism, because people often say this and positivists get such a bad press that I wanted to clarify.

Roger Trigg

I think as always happens the proponents of a view are much more subtle than the people who latch onto them later.

John Milbank

I think in a way the analogy between natural science and theology breaks down here in the sense that obviously experimental science has a very limited purpose, its studying only a section of reality in a very limited kind of way, but theology claims to be speaking about God; who is as Aquinas says 'being as such' and to speak about everything else in relation to God. This can become monstrous if you imagine that talking about God *is* like talking about one thing, or a particular object, or an isolated subject area. Clearly *everything* is not like things, if you like to put it that way. This means I think that the only way to talk about God is indirectly, you have to not only talk about everything else in relation to God, but you can only talk about God in terms of everything else analogically in terms of the kind of refraction that God makes to everything else. This can come to a head in particular disclosive events which we think of as revelatory events, so the sort of peculiarity of a revelatory event is that somehow it's very particular and yet tells us something about everything in the way maybe that a very significant work of art is held to do. Theologians are both sort of cleaving to a very particular tradition, and yet also talking about everything. That's one reason why I think that Christianity, especially in its Catholic forms, is kind of suspended between folk belief on the one hand and abstruse speculation on the other hand. I think we've gone completely wrong when we've handed over power to bourgeois bible classes.

[Laughter]

Nicholas Lash

I want to pick up a phrase from Professor Milbank's, but not his concluding phrase. The everything is not like things. When Thomas Aquinas asks 'does God exist?', he's not in fact asking what I sometimes call the Loch Ness monster question - if only we could dig deep enough etc. He's asking a much more difficult question philosophically which is how appropriate, what are we doing with existence language when we use it of God? Just as you might ask 'do numbers exist?'; if you asked 'do numbers exist?' you wouldn't be doubting your capacity to count but numbers aren't *things*. It's that kind of 'what are we doing with existence talk' when we say God exists.

Lucy Winkett

I'm going to move now to a couple of questions that we've had from the floor. This is a very straightforward question, simply put, which I'll ask Professor Milbank first. Which requires more faith, that science can reveal the wonders of the universe or that God exists?

John Milbank

I think that 'science reveals the wonders of the universe' would require a lot more faith and it would be a thoroughly misplaced faith. I think, in a sense, the obscure recognition that there's unity to everything, that everything is gift, has always sort of hovered and I think there's a certain truth in the way there has always been a sort of monotheism in the background that people didn't want to talk about; they wanted to talk about more immediate things - it comes into the foreground with the people of Israel. I think there's something quite spontaneous and it's a faith available to ordinary people, I think you have to work very very hard to think that science tells us about the secrets of the universe. All it tells us about is certain interactions between humans and non-humans which are...these are true of non-humans, it's not a pure instrumentalism...it's realist, but in a limited way if you like.

Nancy Cartwright

Since I don't at all buy Professor Milbank's account of modern physics, and the esoteric side of it in that one's only learning about interactions and not about the objects themselves, I don't buy that argument for thinking that one requires more faith than the other. But I'm not even quite clear how to grade degrees of faith, it does seem to me that thinking that science can tell you all the secrets of the universe would require a great leap beyond any evidence of any kind that we have. But, it might also be the same kind of leap that we make in believing that God exists. The position is underdetermined by the evidence, I think most things are underdetermined by the evidence and I wouldn't be surprised if both of these were; I believe them myself, and would argue for them both to be, so I think of them as

somewhat on a par and that there's a great deal of faith required to get through life from one moment to the next.

Lucy Winkett

It's difficult to quantify faith of course, but which requires more faith Professor Lash?

Nicholas Lash

Back to my St. Augustine's remark about even the devils believing in God, faith in God as understood in classical Christianity is much more like trust than like entertaining an opinion about this, that, or the other. Canon Winkett, in her introduction, mentioned the German theologian Karl Rahner; when he was in his eighties, he was in conversation with Pope Paul VI and the pope said 'Father Rahner, you and I are both old men. What is your attitude to your death, do you approach your death with fear or with delightful anticipation?' and Karl Rahner looked at the pope and said [*deep voice*] 'with commitment' [*laughter*].

Lucy Winkett

I'd like to move us on to a topical question which widens us out. Following the Royal Society Director of Education's resignation for wanting science teachers to respond to questions from children about Creationism, following his resignation what can theologians do to resist - what this questioner calls - 'the ascendancy of militant nationalists in science'?

Roger Trigg

Militant Nationalists?

Lucy Winkett

Rationalists [*laughter*] You can answer the question of nationalists if you wish...

Roger Trigg

I think we'll just take on the rationalists for the time being. If I could just comment on that episode, I really felt that it was a disgraceful episode because what in fact happened was that poor man was just the victim of our soundbyte culture - he was the victim of the headlines about what he said, not what he said. I think that if somebody in a class that believes in Creationism, that asks you even in a science

class about it, the very worst thing from an educational point of view is to slap them down and say it's not open to discussion, you're wrong full stop. You're just going to shut people off from science and I think there is a great worry, and this occurs more in the United States than here but I can see it happening here, that a certain kind of young person will get the feeling that if they have to choose between faith and science they'll choose their faith. They must never be made to feel that that is a choice. Now, the particular context of this, of course, was the issue about evolution and I personally believe that you can believe in God and evolution and I think that that's appropriate to discuss - particularly in a sixth form - in a school, even in a science class and I think that it would open things up very well. The idea that you can't discuss it suggests an element of dogmatism and closed minds that scientists traditionally have accused the church of showing, and in fact what we are now seeing is that it's a widespread human phenomenon. I find it very pitiful myself.

Nicholas Lash

A plea from the academic theologian, after-all nobody of any common sense reads the kind of stuff that Professor Milbank and I write, so a plea from the academic to the church leaders. It disturbs me greatly that all the discussion in the press about Creationism, it very rarely seems to be said loudly and clearly by somebody that Creationism has nothing in common with mainstream Jewish and Christian doctrines of creation. That message needs to be got across much more clearly than it is at the moment I think sometimes.

John Milbank

I agree both with Roger and with Nicholas, I think beyond even that point Nicholas there is a profound collusion between Creationism and dogmatic evolutionism; even Darwin's own dogmatism about the operation of a single principle is very much a sort of standing on its head of palliate Creationism. The idea of a kind of extrinsic designer figure, and one mechanical cause and this kind of illusion that the doctrine of creation is sort of explaining origins - a kind of interventionist thing - rather than the idea that it is explaining why there is anything at all; being as such. The confusions here are incredible and Nicholas will be glad to hear that our centre at Nottingham with Conner Cunningham presenting it is doing an entire hour programme for BBC2 to try to knock this thing on the head and to explain to the general public how Creationism is nothing to do with traditional Christian teaching. But I do agree with Roger entirely that, nonetheless, evangelical school children's questions have to be respected. I watched a programme with Dawkins where three agnostic school teachers in the East end of London were trying to explain to this one-dimensional man how you couldn't just dismiss the family faith backgrounds of Muslim school children and so on. That you had to take seriously the social consequences and all this kind of thing. The pedagogic thing is absolutely right. I would hope that

even at school level we could start to explain how creation science is a category mistake. The idea that Creationism is an alternative scientific hypothesis is just a complete epistemological confusion.

Lucy Winkett

Professor Cartwright, this is a two part question and I'm going to ask you to answer the science part of it. The first part is, does religion allow for uncertainty? I'll come to our theologians about that, but for you - is there fundamentalism in science? What does that look like, scientific fundamentalism?

Nancy Cartwright

It looks like somebody's been reading something I wrote. [laughter] Because the book *The Dappled World* that you mentioned I say that the people that I'm trying to dispute with, and engage with, are fundamentalists in the sense of thinking that certain things that I take to be rather metaphysical and that require faith and things that I think the evidence for is much less conclusive. Things like that the laws of physics govern absolutely everything in the physical domain, that they're complete, that there will be simple unified laws, which seems to me to be dramatically under-evidenced, might be true, might not be true I don't think we know. I do find that many people just cannot see that it might not be the case, and yet we could have successful science. I think of that for instance as like a fundamentalist belief, it's a sort of starting point for some scientists and many philosophers and they can't sort of shake away from that as their fundament. Somehow it's taken that this *has* to be the case and then you fit everything else in. When we fail to make adequate predictions in the messy world, I say well that's because we see 'through a glass darkly'...maybe, maybe not. But it seems to me that it smacks of the same kind of thing, taking a view that would be very hard to have serious evidence for one way or another and just taking it and insisting on it.

Lucy Winkett

Professor Lash, bearing in mind your comment about Karl Rahner facing his death, committed. What's the place of uncertainty in religion?

Nicholas Lash

It's often supposed by non-Christians, even people not necessarily hostile towards Christianity, that the function of Christian or Jewish or Islamic faith is to function like a child's comforter in our awkward world. It's a bit more peaceful if you've got it. I deeply believe that something more like the opposite is the truth. I mentioned the Garden of Gethsemane earlier. I think that deeply grounded Jewish,

Christian, or Islamic faith; these traditions have the resources to enable people to face with full seriousness the darkness and terror of the world in which we in fact live, not to evade it.

John Milbank

I completely agree, there is a sense in which in an atheist, meaningless, nihilist world evil isn't quite real either. Far from being the case that the problem of evil is just a problem for believers, it's a sense that which only in a metaphysical universe are you registering this with due seriousness. The issue about scientific fundamentalism I think is a very important one because I do think that there is a tendency, especially in the social sciences, to mis-describe the traditional beliefs of people. They are ascribed all sorts of peculiar superstitious beliefs, and so on, so that there is a kind of iconoclasm about the modern world - you destroy the fetishists. Anthropologists I think have taught us that it's much more the case that these people don't have weird beliefs that these things are inhabited by spirits, so much as they take seriously that things are also actors. They respect things, they are prudent about things and they realise that human beings only define themselves through things; through their environment, and this constitutes human interaction. It's a more sort of ecological approach, and it does seem to me that the danger of scientism - of saying that science is the only way of looking at things - is that you smash up the sacred objects and you say that everything is simply a manipulable object. You cease to reverence things, you cease to treat things prudently and you have the idea that everything can be turned into everything else. Despite the fact that, even when you take that attitude, in fact things keep taking you by surprise; that science and technology doesn't know how objects are going to behave. So, in a funny kind of way they're fetishes after-all and I think one can extend sort of Marx's sense of capitalism and fetishism to the whole of science. Scientism is another kind of fetishism and a very sinister kind because it thinks it can create endless hybrids and the fact that you can do this is justified. So, I think an awful lot of modern science *is* a kind of fundamentalist 'Will to Power'; it's a will to change nature, control nature, and through that as C.S. Lewis famously said 'to control people' and this is the deep secret behind what's going on.

Lucy Winkett

Professor Trigg, would you agree, bearing in mind what Professor Milbank as said, that the separation of science and religion has been detrimental to both disciplines?

Roger Trigg

Most certainly I think it has. One other, just going back to what was said and the mention of Anthropology is that I think a very scientific approach - thinking that science is the only thing that matters - doesn't really take seriously facts about human nature. The research programme that I'm

involved with in Oxford is the Cognitive Science of Religion and we're beginning to look at what are the basic features in human nature that make people see the world in a religious way. Now this does nothing to say that it's true, or that it's false, but I think that one thing that the initial research is showing is that religion is certainly there in all cultures - according to anthropology - and indeed very commonly in little children. I haven't got time to go into all of this, but basically it's very easy to see that religious impulses are deeply ingrained in us; they're in fact natural. Indeed one could so far as to say that atheism, and the scientism approach is very much an atheist approach, is the thing that itself needs to be explained. The default option in human nature is a religious response to the world. Now as I say, that doesn't justify it, it doesn't say it's true; but it does say it's there and what worries me about a lot of scientific approaches to the world - and indeed to human beings - is that somehow they feel that they can ignore the whole religious dimension of life, and that somehow this doesn't matter because its marginalised; it's not important. Very often the people doing this of course are living in their own cocoon in, perhaps this bit of Western Europe, and they don't realise that actually we're very untypical here and now in being rather secular. That the world as a whole now, and always, has been much more religious in different ways. Again, that doesn't say that religion is right; but you can't just sweep it aside and say it doesn't matter.

Lucy Winkett

Professor Cartwright...

Nancy Cartwright

I guess I wouldn't want to make an argument for religion from the point of view of being part of human nature as I think that all the studies that I know that purport to get us a little bit about what human nature is have serious flaws. But also, I take it to be a major part of what we aim for as people is to overcome the weak bits of human nature. Now, whether this is a weak bit or strong bit of human nature is what part of the controversy is about; but the fact that it's part of human nature seems to me a reason that we have to take it seriously in planning society and in thinking about society. Again, as you say, it goes no way in showing that it's a good bit in human nature rather than one of those bits of human nature that I would rather see us overcoming.

Roger Trigg

All I'm saying is that the type of secular attitude nowadays that says that we can forget about religion and it doesn't matter because it doesn't play any part in anything is just wrong because they are ignoring basic strings, basic impulses in human nature. Now as I say, that doesn't justify it, there may

be many parts of human nature that we have to resist and perhaps they say that we ought to resist them; but we can't ignore them.

Nancy Cartwright

Well, it always has been part - always in the last two centuries - part of the progressive movement, positivism, to say that 'we wanted to get here'. It might perhaps be something we can't ignore because a very small segment of human kind have gotten there, but that the rise of humanity is to get rid of what Milbank calls the esoteric; to get rid of magic; to get rid of superstition, and to be rational; and rational then means whatever you think it means. But that is clearly a line that you have to deal with.

Roger Trigg

Yes, and I suspect that what I'm saying is that you probably never will get rid of it. I was talking to an anthropologist recently who said that whenever he conducts a dig, even if there is no evidence of religious ritual, he knows that that society had religion because he knows that religion is universal - of a kind, however you define religion. But he was an atheist, he didn't like religion, and I'm saying well what you're saying is you don't want to but we're stuck with it; and he said yes that's exactly it. So many people who don't want it would prefer not to be stuck with, they would prefer to say it isn't there.

Nancy Cartwright

But Roger, we don't know the Gross Domestic Product of 80% of the world's countries from last year, I don't see how we can know anything like that religion - or a certain kind of religion or drive for ritual - is a cultural universal. I always mind this when people start talking about human nature and cultural universals because I work in a school of social science and I know how little we know about so few societies and that's why I cite this fact about economic performance - something we are keen to measure - and we don't know that; why should we know...

John Milbank

My point about the esoteric was that I think there is a tension within science itself as to whether you put the emphasis on what works, what seems to be confirmed experimentally, even if you have to posit strange unknown forces; or you have to posit things that really you can't explain like affinities between things at a very extreme distance, which have played more and more of a role in modern physics. There's a tension between that and the point of view that wants things to be clear, comprehensible and to be able to arrive at first causes, laws, principles. Whereas, I think it's perfectly compatible with natural science to say as I would think that all natural laws are are sedimentations of habit; they're

nothing more than that. They're sedimentations, they're simply sedimentations of habit; of hexes in the Aristotelian sense in the universe. They have no absolute character whatsoever, and it seems to me that that's much more interesting from the point of view of theology and much more relates to the Trinitarian God than this idea of a universe where everything is rationally clear and explainable. Which nonetheless, appeals to a certain kind of rationalist, deist, mentality and also to certain kinds of evangelical mentality. I think it leads to heresy actually.

Lucy Winkett

Professor Lash...

Nicholas Lash

If I can go back to the original question about whether the separation has done damage. My son's godfather, sadly now dead several years, was a very distinguished Danish historian of ancient astronomy and a devout, dedicated Christian, and he was always insistent that in his experience - taking for granted as he did that at the heart of serious Christianity there is a relationship to reality that can best be described, and it's not a very beautiful word, as one of contemplativity; the fundamental prayerfulness if you like of appropriate Christian relations of the world of which we form a part - he was always insistent in his experience in the work of very many distinguished natural scientists, many of them terrified to think of this as they are devout and happy atheists, nonetheless in their work their attitude towards the material with which they were working went beyond just the disinterestedness required of any serious search for truth to something more like a kind of wonder with was within some kind of shouting distance of Christian cotemplativity.

Lucy Winkett

I think that leads us onto one of the other questions that's come from the floor. Professor Milbank, can you expand upon the idea that quantum physics has raised more questions about mystery?

John Milbank

Well, you know, I speak in utter ignorance here. But, because I think that it involves things like quantum leaps; that it involves apparently discrete packets of energy; because famously it seems to involve opposite things happening at the same time, something is both a wave and a particle you can describe it either way. This raises incredibly difficult questions about are there parallel universes? Is this really what's going on? Is this just what seems to be going on from our perspective? Or, is it something that happens in the interaction? Which I think is more what I would favour in that it opens

up the temporality of nature as well as the temporality of the observer. Which I think is why I find the quantum vision more attractive than the relativity vision which seems to abolish time. But, you know, famously we still can't get quantum physics and relativity together and the scandal of string theory, as far as I can see, is that it really doesn't have very much experimental confirmation so far; or much technological application. I think one of the reasons why we are in a kind of scientific crisis is that people are filling this gap by coming up with these grand speculative theories; so people like Hawking are kind of substituting for philosophy and theology and are really going way beyond any kind of evidence. I think partly, also, that philosophy and theology are themselves responsible for this; that in the 20th century they abandoned metaphysics, and it has been argued that this has given rise on the one hand to scientism and on the other hand to fideism. So, in a sense our abandonment of the metaphysical big picture means that to some extent we theologians - not me of course - but the others [laughter] are to blame for the rise of religious fundamentalism, because in a way I saw this coming and we are partly to blame for this and we've now got this collusion between fideism and scientism.

Lucy Winkett

Professor Cartwright, could you comment on mystery in science?

Nancy Cartwright

I was going to comment on the idea that string theory, which I do admit is very very far from evidence and being born out in the facts, but it does have exactly the kind of critical, logical, reasoned structure that we were advocating; and it looks to me that it functions in very much the same way that I see a great deal of, what I find, perfectly reasonable theology where one has an interrelated system of thought; you have to make sure the pieces fit together. Once you have a lot pieces in place it's very difficult to move, it's very constraining...

John Milbank

But, you know, theology has a very different kind of evidence. It has the evidence of seeming to fit with our practice; to meet with our deepest desires; something that we can sort of intuit through beauty and this kind of thing...

Nancy Cartwright

I wouldn't take myself to be much reason to think it's true. That it meets my desires is...wishful thinking.

John Milbank

That's because you must then have a modern secular understanding of what truth is. If you think that truth is somehow cut-off from what would meet our deepest desires. This would have shocked not just the middle ages, but the Greeks; they assumed that truth was that kind of thing. It was that which would satisfy us all in our most fundamental integrity. The whole problem is that we imagine there is some other kind of truth.

Roger Trigg

Can I just go back to the issue of quantum mechanics for a moment, because I think it's immensely important to see how science has actually opened up new areas. In the 18th, 19th centuries, there was a tendency to see the world in a very deterministic, mechanistic way. The world, the universe, is a clock just going on according to pre-ordained ways. Now quantum mechanics has shown us that things don't work like that, that we can't predict absolutely; that there is a probability, but not a certainty about how things are going to work...and indeed, we can even talk about a basic freedom, and there is therefore room even for human free will. I'm not going to relate that absolutely to quantum mechanics, but it does show that the universe itself is not a closed, mechanistic affair.

John Milbank

The cosmos participates in the creative freedom of God in a way that it doesn't in a Newtonian universe. I think this is much more in accord with an orthodox Christian way of thinking about it.

Roger Trigg

Yes, I accept a lot of that. I think the only worry about quantum mechanics, is that some interpretations of it can get - from my point of view, in a technical and philosophical term - very idealistic. In other words, the world exists because we perceive it. Now, I do think it is very important to actually...I remember talking to a very great scientist, John Wheeler, who was the one who thought up the term 'black hole'; and he was treading a very idealist path, getting very much like Bishop Barkley - the quad isn't there if you don't see it, and the tree in the quad isn't there if you don't see it. I think that quantum mechanics can lead us down that path if we're not very careful. But, even Niels Bohr was a realist and it is very important to see that there is a world there to be investigated - whatever our relation with it - we're not projecting our own thoughts, our feelings; we're discovering something.

Lucy Winkett

We're fast running out of time here, we could go on for many more hours; but I'm just going to ask each of the panellists to leave us with one thought from this evening. Could I start please with Professor Lash.

Nicholas Lash

I hope this isn't too flippant. I have no idea how this conversation has seemed to you in the audience, but as a panellist I've thoroughly enjoyed it even if I was occasionally reminded of the man who said that 'God so loved the world, that he did not send a committee'. *[Laughter]*

Lucy Winkett

Professor Cartwright, what would you like to leave us with this evening?

Nancy Cartwright

Well, I suppose the thought that there is a great deal of uncertainty in both life and theology and in science; and that's just something we should come to live with.

John Milbank

I think we should be reminded of the famous passage in *The Man Who Was Thursday* by G.K. Chesterton where Chesterton draws attention to the peculiarity of the situation where the poor little defaulting man who has committed a crime because he yielded to temptation, but knows perfectly well there is right and wrong is put in prison; whereas, the people who don't believe there is any right or wrong at all - the nihilists - are walking free on the surface of the earth.

Lucy Winkett

An uncontroversial note to end on...to Professor Trigg.

Roger Trigg

Very often we are made to believe that faith and reason are totally different, and of course that plays into the hands of those who want a monopoly of reason and suggest that faith has nothing to do with it. I want to emphasise that faith and reason should be going in the same direction, indeed you always need faith in something and your reason immediately comes in play. Also, indeed, that the apparent epitome

of reason, namely experimental science itself, depends on a lot of faith that things here are evidence of things there; and that's always a leap of faith.

Lucy Winkett

It just remains for me to thank on your behalf Professor Trigg, Professor Milbank, Professor Lash, and Professor Cartwright for a thoroughly stretching and fascinating evening. Thank you very much indeed.

[Long Applause]

END