



WHAT COUNTS AS EVIDENCE?

When choosing a book for the purpose of sheer escapism there is nothing better than a good crime novel. You don't have to take it too seriously; instead you are whisked along by the detective's lines of inquiry. Some of those lines will lead down a cul-de-sac but others will bring key evidence to light and will, in the fullness of time, contribute to solving the mystery. In most crime novels the identification and apprehension of the criminal is the end of the story; we are not burdened with the rigours of the court, with the arguments made by the defence and the prosecution. Why should we be? After all we have followed the line of investigation and we are as convinced as we could be that the right suspect has been charged with the heinous crime, we need no further proof. If, however, we did get a glimpse into the courtroom with the accused in the dock and the detective on the witness stand we would discover that getting a conviction is a complicated business. Among other things it would quickly become apparent that not all evidence is acceptable to the court. At the very least all evidence must be both relevant and admissible. Simply producing evidence is not good enough, it must be shown that what is provided will help prove some part of the case, and that it has been obtained according to proper procedure. The very possibility of conviction will depend on the quality of the evidence.

Evidence also stands at the heart of scientific discovery. From laboratories to field observation, theories are put forward on the strength of evidence. There is one critical difference between this kind of evidence and that heard in the court room: in the legal setting a good part of the evidence may take the form of witness statements, accounts of personal experience that are impossible to recreate and observe; in the scientific setting

most evidence is observable and repeatable. If a scientist in Boston performs an experiment that lead to a particular set of results, then a scientist in London can follow exactly the same experiment and should achieve exactly the same results. They may indeed vary as to the interpretation of these results but if they have followed exactly the same experiment they will be able to agree that the results are as they are. So when one scientist measures the boiling point of water as 100°C, all things being equal every scientist can repeat the experiment and verify that the boiling point of water is indeed 100°C. The ability to reach such agreement, and to do so without debate, is based on the fact that the relevant evidence is observable and repeatable. Of course this ability to observe and repeat has been greatly enhanced in the last few hundred years as the accuracy and power of measuring devices has increased. As these capacities increased a powerful question developed: if scientists can provide hard evidence for the claims they make should all theorists not be able to do the same? This question was most pointedly made to theologians in particular and believers in general: what kind of evidence have you got for the claims you make?

It is worth asking why this question was directed particularly to theology and not perhaps to philosophy or history. The answer lies, at least in part, in the fact that science is a relatively young discipline. This is not to say that the word 'science' itself is a newcomer; that is certainly not true. Nonetheless, what had been, in the early centuries, regarded as 'science' is not what we would recognise as 'science'. In the Middle Ages, for example, there was talk of three sciences but not biology, chemistry and physics; instead they referred to metaphysics, mathematics and natural philosophy. Clearly when they used the word 'science' they meant something rather different to what we mean. Even in the Renaissance, that period most commonly associated with the birth of modern science, there was a radically different understanding of the word. Isaac Newton, for

example, thought he was undertaking ‘natural philosophy’ while others saw themselves involved with the study of ‘natural history’. And both ‘natural philosophy’ and ‘natural history’ were motivated most often by religious concerns. You only have to read Robert Boyle to find these sentiments expressed clearly and unambiguously: ‘God is comprehended under the title of natural history’.¹ This association between religion and ‘natural history’ was most prevalent in England where there was an abiding interest in the principle of design, to which we shall return in Chapter 4. The move away from this kind of religious motivation, however, only began in the middle of the nineteenth century. It is then that the word ‘science’ took on the meaning to which we have now become accustomed.

Alongside this development William Whewell, in 1833, coined the word ‘scientist’. He knew that the word ‘science’ takes its root from the Latin *scientia*, to know, and he was making the claim that ‘scientists’ were the ones who really know. It was a clever bit of word invention. It was also around this time that ‘natural history’ was transformed into ‘biology’. The newly branded ‘scientists’, like Thomas Huxley and John Draper, were determined to rid their discipline of amateurs and parsons, and to give science an air of respectability. To achieve their aim they needed to shift public opinion away from a religious way of looking at the world and towards a scientific approach. So they used a bit of nineteenth century spin: they started the myth that there was an ongoing conflict between science and religion; and that myth still spins.

There are undoubtedly people today who believe that science and religion are still at war. And they believe that to be the case for the very same reason we uncovered earlier: science can produce observable and repeatable evidence; can theology? We see the argument at work in the writing of the well-known atheist Richard Dawkins:

Next time somebody tells you something that sounds important, think to yourself: ‘Is this the kind of thing that people probably know

because of evidence? Or is it the kind of thing that people only believe because of tradition, authority or revelation?’ And, next time somebody tells you that something is true, why not say to them: ‘What kind of evidence is there for that?’ And if they can’t give you a good answer, I hope you’ll think very carefully before you believe a word they say.²

This is not, of course, an original argument. We might even say that it is the poor relation of the more famous one line maxim originally published by William Clifford in 1877: ‘It is wrong always, everywhere, and for anyone, to believe anything upon insufficient evidence.’³ It was the rise and rise of science that gave birth to this notion that evidence is crucial to belief. The scientist in the laboratory worked assiduously for evidence and in so doing set new standards for belief. It is a beguiling little principle because it sounds all too reasonable. Let us examine it a little further.

2.1 CLIFFORD’S PRINCIPLE

Within the confines of the laboratory the principle can hardly be faulted. If I believe that ‘copper conducts electricity’ then I should be able to support that belief with appropriate experiment and carefully analysed results. Furthermore, as mentioned it ought to be possible to corroborate that belief by having the experiments repeated. Provided no glaring error raises its ugly head it will be generally agreed that my belief that ‘copper conducts electricity’ is well founded, that is, sufficiently supported by evidence. Had it been the case that doubt was cast on the process of experimentation or on the analysis of the results then the evidence would not have been sufficient to support the belief and, in accordance with the principle, it would be wrong to accept it. The laboratory scientist is trying desperately hard to make any glaring errors; there is a wish here to arrive at an indisputable answer. There is a kind of mathematical envy.

In mathematics, at least as we encounter it as amateurs, there are a number of well known uncontested proofs. Such proofs begin from generally accepted premises and move on, through a series of clear steps, to show that something is indeed the case. Let us take the case of the interior angles of a triangle. How might we prove that the interior angles of a triangle sum to 180° ? The first step would be to lay claim to Euclid's fifth postulate, the generally accepted statement that "A straight line falling on parallel straight lines makes alternate angles equal to one another ...". By alternate angles he means that the angle ACY and LDC are alternate, as are XCA and ACY (See Fig. 1). That then is the accepted premise. So let us draw a triangle ABC and a line XY through the apex B such that the line XY is parallel to the base-line AC (See Fig. 2). We can now make the following steps.

1. XY is a straight line and a straight line has the angle 180°
2. Therefore, the angles $XBA + ABC + CBY = 180^\circ$
3. But given our premise $XBA = CAB$ and $CBY = ACB$
4. By substitution then $CAB + ABC + ACB = 180^\circ$
5. But $CAB + ABC + ACB =$ the sum of the interior angles of the triangle ABC
6. Therefore, the sum of the interior angles of a triangle $= 180^\circ$

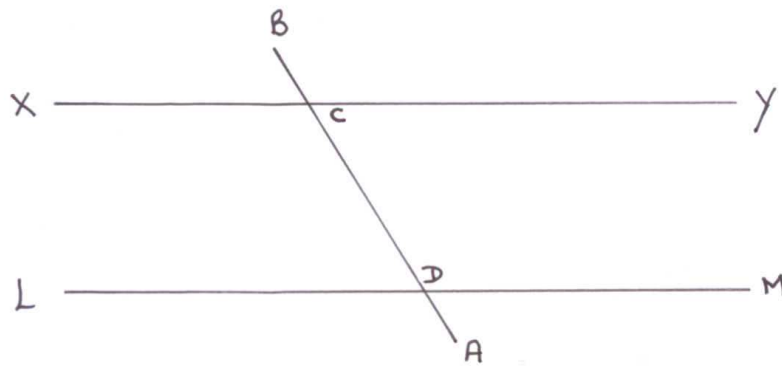


Figure 1

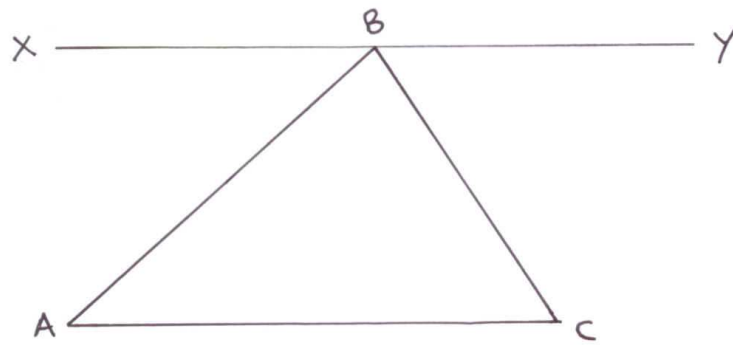


Figure 2

Such proofs may seem a little pedantic or even dull but they have the advantage that if the original premise is accepted, then the steps that follow from that premise, provided that they are accurately made, will lead to a new conclusion that is just as acceptable and just as indisputably correct, as the original premise itself. It is my view that the modern scientist would ideally like to be able to provide just such a cast-iron argument. So it is that every effort is made to record experimental steps with great care and to analyse the resulting data with painstaking accuracy. If such attention is granted then surely the result will provide evidence of the same undoubted strength as that provided by the

mathematician proving basic geometric theorems. Behind the effort is the belief that nobody will believe unless they satisfactory evidence has been provided. It would seem that Clifford's principle holds good, or does it?

I am inclined to agree that the principle does indeed hold good for the mathematician in her study or for the scientist within the confines of the laboratory. Clifford, however, did not see fit to restrict the application of his principle. He could have said, for example, 'Within the laboratory situation it is wrong to believe anything upon insufficient evidence', but instead he chose a comprehensive and inclusive setting stating 'It is wrong always, everywhere, and for anyone'. Given the wide-ranging scope of his principle it is only sensible to see how it might fare in situations beyond the laboratory or even beyond the scientific and mathematical disciplines. How would the principle stand up in the field of history or archaeology or literary studies or philosophy? We could even wonder about the principle in relation to theology, as this was the discipline Clifford clearly had in view when he wrote his paper, but for the sake of adventure let us begin with theology's close friend, philosophy.

Philosophy is a curious subject. It is studied by many very intelligent people and yet it rarely produces answers. Philosophers ask very interesting questions: Does time exist? Do humans have free will? Does anything exist outside the mind? How should we behave? They study these questions, and countless others, in great depth and with considerable intellectual rigour; they define the questions with enormous care and ever increasing precision, but as a community of philosophers there is not much by way of general agreement. Naturally any one particular philosopher may agree with any other but there is an absence of general agreement. Indeed it would be difficult to think of a non-trivial philosophical question to which the philosophical community could give a single unambiguous answer. Why is that? Why is it that highly trained philosophers, all

with access to the same intellectual tools and resources, find themselves at loggerheads on nearly every issue? It can hardly be the case that in any given argument one philosopher is proceeding reasonably while the other is plainly mistaken; reason and logic are the bread and butter of philosophy, the cause cannot be something quite so simple. Neither, however, can it be the case that a philosophical belief is held on sufficient evidence, at least not as Clifford understands it. If a philosophical belief were held on sufficient evidence then reasonable people with sufficient training would be obliged to accept it. Having moved outside the laboratory it appears that Clifford's principle has fallen at the first hurdle. But some will say that philosophical questions are of no real importance. Who, for example, really cares why it is that when you look in a mirror, your right becomes your left, and your left becomes your right, but your top does not become your bottom? Who indeed? Yet to so summarily dispose of philosophy is to misunderstand intellectual history. That said, perhaps it is the case that the principle will fare better when applied to political thought, after all here is an area that very obviously impinges on our everyday lives.

At the time of writing the Iraq war is matter of some dispute. There are those who believe that invading Iraq was the right course of action and there are others who hold the polar opposite view. There are innumerable pieces in the newspapers, blogs on the web, debates on the radio and television but no conclusion anywhere on the near horizon. Many people involved in the debate are well-versed in the facts, articulate in their expression, and cogent in their argument, many people, on both sides of the argument. The evidence it would appear can point in either direction and those who feel strongly on this issue would not care to be told that their viewpoint lacked sufficient evidence. And yet, a person holding views on one side of the argument would be hard pressed to convince a person currently holding views of the other side. There may well

be evidence but the evidence is not sufficiently unambiguous as to be persuasive. According to Clifford's maxim it is wrong to hold such views.

We do not, however, need to turn to philosophy or politics to see just how harsh Clifford's viewpoint is. If we were to take his maxim with any seriousness there are great tracts of our daily beliefs that would disappear into the mists. We believe that some authors are in a class of their own, that some music moves us to tears, that some art leaves us cold; we believe these things but other people will hold the same beliefs but about different authors, music and art. Furthermore, as we relate to the people we encounter each day we hold particular beliefs about them but we hold them on rather flimsy evidence, yet relating would be impossible without such belief structures. In other words, daily life depends on a host of beliefs that are not based on sufficient evidence.

Clifford has taken a method of thinking that has its roots in mathematics and a more general expression in the sciences but it is an inappropriate method for the human arts. It is the kind of method that sounds plain silly when applied to philosophy and politics, to literary and cultural study, to love and desire, and, in the same way, to theology. If Clifford's maxim is not acceptable for theology then what are we to say about faith and evidence? One approach is to say that faith requires no evidence whatsoever; another is to explain what kind of evidence has been traditionally acceptable to one who believes in God. The first of these approaches might sound odd but it finds support from a number of highly respected writers.

2.2 WHEN IS A BELIEF A BASIC BELIEF?

Actually the first of these approaches comes in two varieties. The first is straightforward enough: religious beliefs are immune from any discussion about evidence. Those who hold this view will probably also hold the view that reason is irrelevant to faith; some

will go further and state that reason is the opposite of faith. This position is often associated with Søren Kierkegaard (1813—1855) who wrote about a leap of faith, the need to simply jump one way or the other. From his point of view reason cannot comprehend religious claims; the individual can either take the leap of faith or not, but neither response can be backed up by reason. Fideism stands directly in opposition to the kind of views held by Clifford and it is, therefore, a possible counter-argument. Yet, it does seem that there is not much discussion to be had with a fideist: if religious beliefs are beyond reason then we either accept or reject them, there would appear to be rather little room for further conversation. The second variety is a somewhat similar but less extreme position and we find it cogently expressed in the work of Alvin Plantinga (b.1932). Unlike the fideist he does not believe that reason and faith stand in polar opposition. Instead he suggests that religious beliefs are entirely rational and can be fully justified but that they are not in need of supporting evidence. His view is that a religious belief is a properly basic belief and like any other properly basic belief it requires no evidence. But what does he mean by a properly basic belief?

In answering that question we must first recognize Plantinga's debt to John Calvin (1509—1564) the renowned reformation theologian. In his *Institutes of the Christian Religion* Calvin suggests that God had made human beings in such a way that they had a natural tendency to believe in him. As he put it, "That there exists in the human mind, and indeed by natural instinct, some sense of the Deity, we hold to be beyond dispute".⁴ He also believes that due to human sinfulness that natural tendency had been somewhat dulled. Nonetheless, his basic conviction is that religious belief is an intrinsic part of what it is to be a human, and as such requires no support from other beliefs. In other words, religious belief is basic. Calvin was working on the assumption that some beliefs are based on other beliefs but that there also existed some beliefs that

stood in their right and these are what we call basic beliefs. Take for example the sum 12×23 . I believe that $12 \times 23 = 276$. But that belief is based on other beliefs, like $2 \times 3 = 6$, $4 + 3 = 7$, $1 \times 2 = 2$ and so on. My belief that $12 \times 23 = 276$ is not a basic belief but one constructed upon the foundation of other beliefs. A good example of a basic mathematical belief is that $1 + 2 = 3$. This belief stands on its own and can therefore be regarded as a properly basic belief. There is no way to get beyond such basic beliefs; instead they become the rocks from which other beliefs are constructed. And so it is, says Calvin, with religious belief.

Plantinga shares Calvin's view and sets out to elaborate and defend the position. As Plantinga sees it, Clifford is a strong foundationalist in that by demanding sufficient evidence for a belief, he is assuming that there are certain conditions that must be met if that belief is to be regarded as rational. Exactly what those conditions are is open to debate but we can well imagine that Clifford would expect all beliefs to be supported, eventually, by basic beliefs. But these basic beliefs would have to be agreeable to all rational thinkers. It is for this reason that Clifford is called a strong foundationalist. There is, however, a nagging question: how do you know what a basic belief is? Strong foundationalists propose a definition:

A belief is basic if it is either self-evident or evident to the senses.

I suppose you might say, then, that this definition of a basic belief is itself a basic belief, it would be hard to imagine how you might go beyond or behind it. If you think that this is indeed the case, then you have hit upon a fairly obvious difficulty: this particular basic belief is certainly not evident to the senses and is hardly self-evident in the way that $1 + 2$ is. This particular basic belief fails by own definition and that is surely fatal. Actually the very same thing can be said of Clifford's principle. His maxim is similarly not evident to

the senses and neither is it self-evident. What exactly is the sufficient evidence on which it is based?

Problems, then, for Clifford but Plantinga has his own spot of bother. If you say that religious belief is a basic belief then surely all kinds of belief might be basic. At this juncture we are normally introduced to the comic strip *Peanuts*. One of the characters, Linus, believes that every Halloween night the Giant Pumpkin will appear in the pumpkin patch. The other characters do not share this belief but Linus is convinced and consequently spends every Halloween night waiting for the arrival of the Giant Pumpkin. Plantinga's critics think that Linus belief in the Giant Pumpkin could easily be regarded as a basic belief, and yet clearly a false belief. What is the difference between regarding religious belief as basic and the Giant Pumpkin belief as basic? Or put more sharply, what is a basic belief? Plantinga rejects the strong foundationalist answer to that question but now he is required to give an alternative. That he does by suggesting that a basic belief is arrived at inductively. We can arrive at basic beliefs through a process of testing. We examine those beliefs that we think to be properly basic and also those we understand to be non-basic and then set about trying to understand how each group is defined. Any future or new belief can then be assigned to the basic or non-basic group according to such reflective experience. Such a process, however, will not result in a universally agreed set of basic beliefs – this is the point at which Plantinga clearly departs from strong foundationalism and creates what we might call a weak foundationalism. Believers will consider their belief in God as properly basic while non-believers will not. Believers will also be able to construct further beliefs beginning from the basic belief in God; their foundations do exist but they are not the same foundations as those of the non-believer. The advantage in this approach is that it frees the believer from Clifford's hook; the disadvantage is the unclear process involved in arriving at a basic belief.

2.3 CAN THERE BE ANY EVIDENCE?

I know that it rains in Ireland. If someone were to propose an argument that suggested that no rain fell in Ireland, I would not even need to look at it, or think about, I would know that such an argument would be wrong. Whatever the argument involved I just know that it rains in Ireland and I cannot be convinced otherwise. If someone says, by contrast, that they believe that God does not exist they will be making a statement of a different kind. Yet, some will see their belief as a form of knowledge and move from saying that 'I believe that God does not exist' to 'I know that God does not exist'. This may not be the outward expression but they will be convinced that no evidence could possibly be brought to bear in support of God's existence. Such a position – much like that held by the fideist – is a brick wall. It is a legitimate position but I am not sure that it can have any more basis than that of strict fideism. We are back to Kierkegaard's leap of faith but having made the leap we see our position as immune from attack, as a certainty.

If you are unhappy with the leap of faith approach what other options are available to you? Obviously if we are not going to take a leap we will instead have to look at the kinds of evidence that have been traditionally employed. Faith statements - and by that I mean propositions not constrained to the existence of God - have typically been supported by four rocks: scripture, tradition, reason, and experience. Together these might be classed as fundamental theology; the rocks on which more developed statements find their support. We will take a brief look at each of these rocks in a moment but you will also find more thorough discussion in later chapters.

The three great monotheistic faiths all make appeal to their scriptures. The Muslim will appeal to the Koran, the Jew to the Torah, and the Christian to the Old and New Testaments. Certainly within the Christian tradition there is considerable latitude when it comes to interpreting the Bible and there is constant debate about the appropriateness of the various methods and their underlying philosophical suppositions. What does it mean to say that the Bible is inspired? What could it possibly mean to say that the Bible is true? In what sense is the Bible a revelation? The questions come thick and fast. Nevertheless, followers of a particular tradition are joined together by the fact that they share the same set of scriptures. That shared heritage allows for the creation of a common language in which statements of belief can be worded. For now, though, it is enough to recognise that even though the matter is far from simple the relevant scriptures will play an important part in the expression of belief statements.

Tradition also plays an important role. In general religious beliefs are not held unilaterally; a believer believes within a specific context and that context has been shaped by the historical development of that particular tradition. A Jew will be shaped by the history of Judaism and so on and so forth. Within each major tradition there will be further divisions. In Christianity Protestantism and Catholicism share the same early roots but encountered some differences of opinion around the time of the Reformation. Within Protestantism there are further divisions each with their own traditional documents. As an example you could think of Anglicanism (The Episcopalian Church) and its Thirty-Nine articles. And in order to give support to statements of faith believers from the various traditions will make appeal to their own specific historical understandings and foundational documents. The notion of context and its importance has been a keynote in recent postmodern discussion. It is now widely recognised that

context plays an important part in the formation of belief structures so it is no surprise that when it comes to religious beliefs tradition is a central player.

As we saw above, the fideist has no time for reason in conjunction with faith. Others, however, believe that it is possible to use reason to make a case for the existence of God or any other religious claim. Among them there will be those who argue from our everyday experience of the world or from our natural ability to think logically and coherently. This approach is generally known as natural theology. Then there are those who give pride of place to say scripture or tradition but then appeal to reason so that that material can be sensibly organised. It seems to me that whether you accept natural theology or not you are condemned to using reason at some point in the exercise. To disregard reason would be to form an inchoate set of beliefs. Reason will always have a place at the table.

Finally, there is religious experience. This too is not without its problems and detractors but it would not be outlandish to suggest that most religions have an experiential side of them. These experiences might come in a variety of ways: visions, answered prayer, meaningful patterning of events, a sense of the presence of God. The cynic will wonder how you can be sure that what you experience is really God but point this out to someone who understands themselves as having undergone a genuine religious experience and you will discover a certain resoluteness. Of course, many of our daily beliefs are based on experience. I believe that water boils and I do so because I see and hear the water boiling – I experience it – every time I make a cup of tea. There are other typical beliefs that we hold despite experience. If I were to go on my experience of the world about me I think I would presume that the earth is flat; this is untrue and I believe instead that the earth is round or kind of spherical. Experience can lead us to both true and false conclusions and that is exactly the problem faced by those who place

too much emphasis on religious experience. Yet, given our day to day use of experience we could deny that religious experience might be useful in formulating statements of belief.

In mentioning these four rocks I am suggesting that they are used in isolation. Most theologians will use each of them but in varying degrees of intensity. Liberals will typically prefer experience while conservatives will prefer scripture. There are even those who think the idea of building an argument upon any foundations a touch silly. They do not see beliefs as bricks one sitting upon the other but as parts of a web-like structure and therefore having a greater sense of interdependence. Be that as it may, fundamental theology has traditionally used these four rocks as an evidence base. As I mentioned at the start of this section, those who have already decided that God does not exist will not be persuaded by any of this evidence. Such is the position of Richard Dawkins and Sam Harris. There are, of course, many who examine the evidence and then conclude that there is no truth in religious belief. And there are the very many who in ways explicit and implicit go about their lives using the four rocks as evidence to support their religious views.

2.4 CONCLUSION

We began by singing the praises of the detective novel but this particular case remains open. Like Clifford it is possible to claim that sufficient evidence is required to support any particular belief. Alternatively you take the line of fideism and put up a brick wall between faith and reason. You could follow Plantinga in his understanding that religious belief is a basic belief, part of being human. Or you could take the traditional route of fundamental theology and gather evidence from the four rocks, scripture, tradition,

reason, and experience. It is not possible to say which of these approaches is the more fruitful and neither is it possible to show definitively that any one of them is wrong-headed. So what do you do? You think hard and then you make a choice or come up with some other alternative. As you reflect on this subject you might like to keep some key questions in mind.

Key Questions:

- What is meant by *sufficient* evidence?
- Are your beliefs based on evidence?
- Does reason oppose faith?
- Is religious belief properly basic?
- Is it possible that the four rocks provide evidence?

¹ Robert Boyle, *Some Considerations Touching the Usefulness of Experimental Natural Philosophy*, in *The Works of the Honourable Robert Boyle*, ed. Thomas Birch, 6 vols (Hildesheim: Georg Olms, 1966), 2:62.

² Richard Dawkins, *A Devil's Chaplain*, (London: Phoenix, 2004), p. 291.

³ William Clifford, 'The Ethics of Belief', in *Philosophy of Religion: Selected Readings* ed. by Michael Peterson, William Hasker, Bruce Reichenbach and David Basinger (Oxford: Oxford University Press, 2007), p. 109.

⁴ John Calvin, *Institutes of the Christian Religion* (Grand Rapids: Eerdmans Publishing Company, 1989), p. 43.