# An Analysis of Contemporary Discourse on Methodological Naturalism: Gregory Dawes and Theistic Explanations

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# Abstract

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This thesis explores the topic of methodological naturalism as discussed in the works of three contemporary scholars of religion: Gregory Dawes, Alister McGrath and Christopher Southgate. This thesis focuses on the epistemological issues which are raised when considering theistic explanations. The key question being considered is: Can a theistic explanation be assessed. A methodological naturalist would answer in the negative, arguing that the empirical methods used by present-day scholars and scientists restrict us from considering supernatural explanations such as theistic explanations. This thesis will challenge this point of view and argue instead that theistic explanations are open to empirical assessment. In the first two chapters this thesis engages with the claims and arguments made by Dawes, McGrath and Southgate. In the third chapter the approaches of these three scholars are put into conversation. Here key areas of overlap and disagreement are highlighted. In the concluding chapter it is argued that while methodological naturalism lacks adequate philosophical justification, it is well-suited to serve a contemporary political purpose. Methodological naturalism, in the context of secular universities situated in pluralistic societies, gives incoming students the impression that all theistic claims are equally untestable, thus putting them on an equal playing field: one cannot be said to be more likely or less likely to be true than another.

# Table of Contents

# Introduction

Methodological naturalism is the view which affirms that scientific investigation must limit itself to providing natural explanations. According to this view, it is not the case that supernatural explanations are rejected; it is rather that they cannot be assessed in the first place. In other words, methodological naturalists dismiss *a priori* explanations or propositions which invoke supernatural forces, often on the grounds that such explanations or propositions cannot be tested, falsified or assessed against evidentiary standards. Thus this thesis has two interconnected aims: first, a critical assessment of methodological naturalism, and second, the development of a more adequate alternative. Towards these ends, I will consider the work of three contemporary scholars of religion and science: Gregory Dawes, Alister McGrath and Christopher Southgate. Dawes has a background in biblical studies and philosophy, McGrath and Southgate both have a background in biochemistry and theology. These scholars represent different but partially overlapping perspectives on methodological naturalism. They each offer a view on the legitimacy of theistic explanations. I will examine their justifications for viewing theism as at least a potentially viable explanatory framework. Insofar as these scholars treat theistic explanations as at least potentially viable, they reject methodological naturalism.

In the first chapter of this thesis I examine Dawes' epistemological framework as advanced in his 2009 book *Theism and Explanation*. In this work Dawes argues that theistic claims can be treated as a species of scientific hypotheses depending upon how they are formulated, and that these claims need to be assessed on their own merits as opposed to dismissed on the grounds that they appeal to supernatural causation. In the second chapter I examine McGrath's 2008 book *The Open Secret: A New Vision for Natural Theology* as well as

Southgate's 1999 edited volume *God, Humanity and the Cosmos*. These two authors are treated together because they both profess a faith in Christianity but have differing approaches on how to relate their theistic views to contemporary science. McGrath maintains that Christian theism provides an adequate explanatory model for certain features of the observable world and therefore can be considered as rationally justified. In contrast Southgate pursues a more reserved theological stance, maintaining the modest position that theism and science are at least possibly compatible. Put differently, McGrath argues that theism can positively account for a range of data, while Southgate argues that the data is open to a theistically-friendly interpretation. In the third and final chapter I will bring these perspectives into conversation with one-another. I will highlight points of overlap and disagreement, and propose that an epistemological framework which takes seriously the viability of inference to the best explanation is a more helpful approach than methodological naturalism which negates supernatural and theistic explanations altogether.

## Methodological naturalism: Definitions and preliminary considerations

Ambiguity surrounds the term "methodological naturalism" insofar as scholars invoke it to mean two different things. The first meaning involves the suggestion that methodological naturalism *a priori* precludes, bars, brackets or prevents invoking supernatural explanations. The second meaning involves the suggestion that naturalistic explanations have consistently and persistently superseded or displaced supernatural explanations, and so as a result, research in empirical disciplines are methodologically naturalistic *a posteriori*. The difference between the two is that the first suggests that supernatural explanations are unverifiable, unfalsifiable or non-assessable while the second suggests supernatural explanations are falsifiable and indeed that their historical record of success as explanations is extremely poor. In this thesis, I am challenging methodological naturalism as it is invoked in the first sense, that is to say I am

challenging the notion that empirical disciplines are incapable of assessing supernatural claims. I do not intend to discuss the second use of the term because it is beside the point for the purposes of my thesis. The second sense of the term "methodological naturalism" embodies a conjunction of two claims: the first is that, as mentioned above, supernatural explanations are verifiable and second, that every (or perhaps most) supernatural explanations which have hitherto been proposed have been debunked. The question in focus in this thesis concerns the first half of this conjunction, namely whether or not supernatural claims can be empirically assessed.

While the term "methodological naturalism" is most often used in relation to the natural sciences, the underlying principle easily translates to other fields of inquiry. Thus just as a scientist might speak of excluding supernatural entities from consideration when formulating explanations, so too might a historian of the New Testament. For example, the National Academy of Sciences affirms methodological naturalism as follows: "Because they are not a part of nature, supernatural entities cannot be investigated by science" (NAS 2008). The same perspective is echoed by New Testament scholar Bart Ehrman, who argues that historians must base their claims upon publically-accessible data, and not special claims to knowledge rooted in a particular religious perspective. Hence Ehrman argues: "This means that historians, as historians, have no privileged access to what happens in the supernatural realm; they have access only to what happens in this, our natural world" (Ehrman, The New Testament: A Historical Introduction to the Early Christian Writings, 2nd edition 2000, 14). So it is clear that methodological naturalism is adopted in fields outside of the natural sciences.

But is the adoption of methodological naturalism warranted? A fundamental underlying assumption of methodological naturalism is a meaningful and coherent distinction between the "natural" and the "supernatural". If advocates of methodological naturalism are to succeed in

convincing us that supernatural explanations are beyond the scope of empirical inquiry, then the question of definition cannot be avoided.

Scholars of religion are all too familiar with the ambiguous nature of such concepts as "natural" and "supernatural". For example Kenneth Morrison argues that the distinction between natural and supernatural is not shared universally among Native American cultures (Morrison 2002, 39). Edward Evans-Pritchard argued along similar lines back in the 1930s, when discussing the Azande people of Sudan: "They have no conception of 'natural' as we understand it, and therefore neither of the 'supernatural' as we understand it" (Evans-Pritchard 1937, 80). In his work on the historical Jesus, Ed Sanders remarks: "We see that most ancient people did not have a hard division between the 'natural world' and the 'supernatural' that is common (but not universal) today" (Sanders 1995, 141). The problem here is that those from an educated Western perspective may see it as self-evident that black holes, tectonic plates and airborne viruses are "natural" phenomena, but it is by no means obvious why we should consider these more "natural" than extra-sensory perception, astrology or divine intervention. So when methodological naturalism is affirmed and "supernatural" explanations are eliminated from the outset, it is assumed that the audience will know or intuit that they are not asking us to bracket things like black holes, but are asking us to bracket things like divine intervention. But how have we determined which explanations are naturalistic and which are not?

So in what sense can the distinction between "natural" and "supernatural" be made? Russell McCutcheon seems to imply that the supernatural is *that which cannot be empirically assessed:*

> Whatever these rites, beliefs, and institutions really are (if, in fact, they really are anything other than historical, human productions) is a question beyond the historically and empirically determined scales of the naturalistic scholar who wishes to make a contribution to intersubjectively available research. (17-18)

Here the term "supernatural" is avoided. Instead McCutcheon uses the term "religious beliefs". In describing the goals of his book, he writes that his intent is to avoid claiming that "religious beliefs are wrong, mythical, wishful, or even deluded thinking" (17). In this context, his description of the scholarly method as being unable to assess "religious beliefs" is closely analogous to the National Academy of Sciences' description of science as being unable to investigate supernatural entities.

There is a sense in which McCutcheon's claim is accurate. Insofar as scholarship or the sciences require intersubjective research and empirical data, there is little dispute. The problem however is that McCutcheon simply asserts that "religious beliefs" are "beyond" empirical assessment. If claims invoking the supernatural or religious beliefs are *defined* or *characterized* by their immunity to empirical assessment, then it tautologically follows that they *are* immune to empirical assessment. But this is a circular argument. Are all "religious beliefs" or "supernatural" claims equally, in the same way and to the same degree, "beyond" the scope of empirical inquiry?

Former president of the American Association for the Advancement of Science Fransisco Ayala demarcated the boundary between science and religion in a manner similar to McCutcheon, with an important additional clause. Ayala argued that given that science is restricted to the "world of nature", it has "nothing to say about religious beliefs (except in the

case of beliefs that transcend the proper scope of religion and make assertions about the natural world that contradict scientific knowledge; such statements cannot be true)" (Ayala 2007, 172). I am not interested in Ayala's remarks about the "proper scope of religion", I am more interested in the fact that he felt the need to add an exclusion clause. Ayala recognizes that *some* statements which we may consider "religious" overlap with the domain of scientific inquiry. In other words, Ayala is arguing that the scope of science and the scope of religion are independent: if they were Venn diagrams they would be non-overlapping circles. Yet Ayala seems to suggest that if ever a bridge is built from the religious sphere into the scientific sphere, then that claim becomes open to scientific assessment. Examples of such bridges (which for Ayala transcend the proper scope of religion) include the creationist views of William Paley and the modern intelligent design movement (42, 138). The point I am making is that a consistent application of methodological naturalism would have to deny that such bridges are even possible: if scientific analysis of religious claims (which for Ayala involve supernatural forces) is impossible, then references to exceptions erode the soundness of the methodological naturalism. In other words if *some* supernatural explanations are open to assessment, then methodological naturalism fails.

Here emerges the crucial issue: *whether a proposition is empirically assessable or scientifically testable is not dependent upon whether the proposition invokes the "supernatural".* This is immediately evident when we think of examples such as young-earth creationism, the claim that God created the earth and the universe less than ten thousand years ago. Some propositions invoking a supernatural entity may be testable, others not: it depends upon the specifics of the proposition. One could thus problematize methodological naturalism by simply listing phenomena or propositions which seem to have a supernatural component but are subject to empirical assessment.

## Narrowing the focus: Theistic explanations as a case study

To reiterate, this thesis has two interconnected aims: the first is to problematize methodological naturalism and the second is to offer a more adequate alternative. The alternative epistemological framework will have to be able to process explanations which invoke supernatural forces. Because the term "supernatural" is overly broad and undefined, I will take as a case study *theistic* explanations. This narrowing of focus is warranted by the fact that while many methodological naturalists avoid clearly *defining* the term "supernatural", divine action or the existence of a divine being is frequently used as an *example* of the "supernatural". In other words, if anything fits into the category of "supernatural", theistic claims are certainly among them. This narrowing is also warranted by the fact that some scholars prefer to use the term "methodological atheism" (Cantrell 2016, 373). The focus, therefore, will be on whether *theistic* explanations can be empirically assessed.

This narrowing of focus also allows me to link this thesis more closely with the academic study of religion. I do not seek to defend the claim that religion is characterized by belief in supernatural agents (i.e. gods, ghosts, spirits, etc.). But it is perhaps an uncontroversial point that most scholars who study religious traditions which affirm belief in supernatural agents maintain that the existence of such agents are beyond their ability to determine. This also means that any causal explanation offered within a religious text or tradition cannot be accepted within a secular scholarly context if it involves divine causation. Thus a secular scholar of early Christianity may wish to sidestep the question of whether Paul had a revelation, or may seek to find alternative naturalistic explanations for how he acquired his belief about Jesus. Similarly, a secular scholar of Mormonism will not accept stories involving revelation as a source for the Book of Mormon, and thus may seek to explain its origin as a nineteenth century American text.

So the suspension of judgement about the existence of supernatural agents entails that any proposition, explanation or hypothesis involving a supernatural agent as a causal force is *ipso facto* dismissed. A historian of religion who adheres to methodological naturalism would not explain the origin of a sacred text in terms of revelation. For this historian, divine intervention would not be on the table among even *possible* candidate explanations for any past event. This option is ruled out *a priori*.

But is this position warranted? Is it really the case that an empirically-based epistemology cannot assess claims of divine intervention in history? In this thesis, I will challenge this specific claim. I will argue that in fact, assessing a proposed theistic explanation for some event or phenomena in history is in principle no different than assessing a naturalistic alternative explanation. In both instances, intersubjectively-available empirical evidence needs to be weighed, interpreted and built into a coherent explanatory model. Thus, what is not warranted is an *a priori* universal dismissal of any and all explanations which posit divine intervention on the grounds that they invoke a divine agent. Such explanations need to be assessed, not dismissed.

To help situate Dawes, McGrath and Southgate's views on methodological naturalism, it is helpful to consider the various possible perspectives one could take vis-à-vis methodological naturalism. When one surveys the different perspectives on methodological naturalism, one can see that it is primarily an epistemological issue rather than a theological issue. This is evidenced by the fact that within the camp of those who accept methodological naturalism, we find both theists and atheists. Conversely, we also find theists and atheists among those who reject methodological naturalism. So the possible perspectives can be schematized as follows:

1) Affirms methodological naturalism and is an atheist (e.g. Eugenie Scott, Michael Ruse)

2) Rejects methodological naturalism and is an atheist (e.g. Sean Carroll, Jerry Coyne)
3) Affirms methodological naturalism and is a theist (e.g. John Haught, Kenneth Miller)
4) Rejects methodological naturalism and is a theist (Michael Behe, Stephen Meyer)

Again, what this suggests is that the differing perspectives about methodological naturalism are not theological; they are epistemological. The issue is whether the epistemological framework of the natural sciences or the social sciences can assess an explanation if said explanation involves positing divine action.

## Inference to the best explanation

One of the most important concepts at the intersection of contemporary philosophy of religion and philosophy of science is *inference to the best explanation* (IBE), also referred to as abductive reasoning. Gilbert Harman coined the term "inference to the best explanation" in a 1965 paper, where he drew a close parallel between IBE and what has been referred to as "abduction" or abductive reasoning. (Harman 1965, 88-89). Abductive reasoning as a form of logical inference differs from both deductive and inductive reasoning. This can be illustrated by comparing their "form":

Deduction:

1) All men are mortal,
2) Socrates is a man;
3) Therefore Socrates is Mortal.

Induction:

1) Every time the birth of a polar bear has been observed, the cub was birthed live;
2) Therefore all polar bears are viviparous.

Abduction:

1) I observe that the grass outside my house is wet,
2) But if it had recently rained, it is not surprising that the grass would be wet;
3) So I have reason to believe that it recently rained.

The above examples are crude, but they are meant merely to illustrate the difference in form between the three modes of reasoning. Deduction involves reasoning from generalities to particulars while induction involves reasoning from particulars to generalities. The deductive argument above has the shape: all X have property Y, Z is an X; so Z has property Y. Here the conclusion follows necessarily from the premises as a matter of logical deduction, but the truth or soundness of the conclusion is a different matter. Still, a quality of a well-formed deductive argument is that the conclusion is assured. Induction and abduction do not possess this quality. Induction, which involves observing multiple instances of a similar phenomenon, amounts to making a generalized statement about the world base on a finite sample. Thus an inductive argument is never one which concludes with definitive certainty. The conclusion of an abductive argument is also never airtight: it merely posits a potential explanation. Alternative explanations can be offered; for instance in the above example, it could be that sprinklers had been turned on and that it had not in fact rained. So abductive reasoning involves interpretation of data: the observer pieces together the observations and formulates an explanation which makes sense of the observations. Abductive reasoning is more comprehensive than inductive reasoning: it seeks to *explain* some set of data rather than simply make generalizations.

But how does one determine which explanation among all candidate explanations is the "best" one? Proponents of IBE answer this question by offering a list of epistemic criteria. The

"best" explanation is the explanation which possesses to a greater degree than any other, most of the recommended criteria. Scholars differ to some extent on what these criteria should be, but they commonly include: the testability of the explanation, the consonance of the proposed explanation with established background knowledge and the simplicity of the proposed explanation. Proponents of IBE recognize that in practice, the application of this method is not a straightforward formulaic process. The scholar's role in weighing the different explanations should not be downplayed. At the same time however, if an explanation is less commensurate with background knowledge, requires multiple leaps of assumptions and is unfalsifiable, it would be rather peculiar to suggest that the scholar who accepts this explanation is just as justified as the scholar who rejects it.

Alister McGrath has argued that interest in IBE represents a growing trend among philosophers of science who are moving away from a positivist perspective of the scientific method (McGrath, Science and Religion: A New Introduction 2010, 52). But abductive reasoning or IBE is employed in a variety of fields outside of philosophy. Christopher McCullagh has argued that IBE is critical for assessing competing historical theories (McCullagh 1984, 19). Others have argued that abductive reasoning has a role to play in medicine, in particular with regards to clinical reasoning: "Good detectives and good clinicians share the same underlying approach as scientific researchers (Karl Popper's hypothetico-deductive model)" (Rapezzi, Ferrari and Branzi 2005, 1492). In this thesis I argue that the adoption of IBE as an epistemological tool problematizes methodological naturalism, which draws sharp boundaries between the categories of "natural" and "supernatural".

# Chapter One: On Gregory Dawes

This chapter will unpack and discuss the main themes and key points of Gregory Dawes' book *Theism and Explanation* (2009). Its core aim is to explore the question of whether theistic explanations have the potential to become successful explanations of empirical phenomena. Dawes' approach to addressing this question is best characterized as epistemological: instead of rehearsing classical arguments in favor of or against theism, Dawes considers the question from a theoretical and methodological perspective. According to Dawes, *if* any given hypothesis involving a supernatural agent is to be rejected, it must be rejected for the same kinds of reasons that we reject any naturalistic hypothesis: "Until it is demonstrated, we should not assume that all theories that posit a supernatural agent *ipso facto* fail to meet our general standards of explanatory adequacy" (Dawes 2009, 8). The bulk of the book consists of an elaboration upon the meaning of "general standards of explanatory adequacy" and whether theistic explanations can measure up to these standards. Thus Dawes' epistemological framework poses a strong challenge to methodological naturalism.

## 1.1 Naturalism

Dawes begins his text by referencing the naturalistic stance adopted by contemporary scientists:

> Even if scientists could discover no natural cause of the phenomenon in question, they would assume that one exists. This exclusion of divine agency has become a taken-for-granted feature of scientific endeavour. The attitude it expresses is often described as the "naturalism" of the modern sciences. […] My question is: Could an explanation that

> invokes a divine agent be a good explanation? Could it meet our general criteria of explanatory adequacy, whether or not we choose to call it "scientific"? (Dawes 2009, 1-2)

Naturalism is frequently fragmented into a binary: methodological and ontological (or philosophical). Dawes defines these two as follows: "A methodological naturalist will insist that we must proceed *as if* there were no supernatural agents, while an ontological naturalist will insist that there *are* no such agents" (Dawes 2009, 3). For Dawes this means that in practice, methodological naturalism is indistinguishable from ontological naturalism since adopting the former amounts to operating *as if* the latter were true: "It scarcely matters if you hold naturalism as a procedural rule or as an ontological commitment. In both cases it will guide your enquiry, determining what kinds of entities or forces you will posit when offering explanations" (Dawes 2009, 5). To the extent that researchers in the natural sciences, social sciences or the humanities have personal theological convictions, this is perhaps an uncontroversial statement. These researchers are usually expected to bracket their theological beliefs, especially in the context of a secular university. The same is true of students at secular institutions: they are expected to adopt a theoretical framework which avoids privileging a theological stance or privileging one theological tradition over another. However this raises a question: why bracket theistic beliefs in the first place? Doesn't such a move suggest the explanatory impotence of theism? The problem, according to Dawes, is that while the argument could be made that the naturalism of modern empirical disciplines is merely "methodological," in practice it amounts to a kind of applied ontological naturalism. Because this naturalism is described as an *a priori* requirement of the scientific method, some theists have accused naturalism of resembling a form of dogmatic thinking.

Phillip Johnson, a key figure in the American Intelligent Design movement, has criticized scientists for accepting evolutionary theory because of a *prior* commitment to naturalistic explanations (Dawes 2009, 5-6). For Johnson the problem is that scientists *begin* with an adherence to "materialism", which colors all subsequent conclusions (Johnson 1997). As evidence for this bias, Johnson cites a passage from a book review by biologist Richard Lewontin:

> We take the side of science in spite of the patent absurdity of some of its constructs, in spite of its failure to fulfill many of its extravagant promises of health and life, in spite of the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment, a commitment to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our *a priori* adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counterintuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door. (Lewontin 1997)

The suggestion here is explicit: the commitment to naturalistic explanations is prior. Dawes makes two comments about Johnson's use of this passage. The first is that one could reject Lewontin's argument and contend instead that explanations featuring divine causation are excluded from science because naturalistic explanations have a historical track record of success, hence the exclusion would be *a posteriori* and not *a priori* (Dawes 2009, 6). The second is that there could be *a priori* reasons for excluding theistic explanations which are not based on mere

prejudice: "It may be, for instance, that proposed religious explanations[1] by their very nature lack explanatory force" (Dawes 2009, 6-7). In short, Dawes wants to reject Johnson's criticism that science operates with a kind of dogmatic adherence to natural explanations. For Dawes, a provisional skeptical stance vis-à-vis theistic explanations may be warranted, but a rigid categorical dismissal of all theistic explanations is not. Thus Dawes is critical of American Judge John Jones, who ruled against introducing intelligent design into public schools in a 2005 case in the state of Pennsylvania. In the memorandum opinion, Jones writes:

> We find that ID [intelligent design] fails on three different levels, any one of which is sufficient to preclude a determination that ID is science. They are: (1) ID violates the centuries-old ground rules of science by invoking and permitting supernatural causation; (2) the argument of irreducible complexity, central to ID, employs the same flawed and illogical contrived dualism that doomed creation science in the 1980's; and (3) Its negative attacks on evolution have been refuted by the scientific community. (Jones 2005, 64)

Dawes' criticism is focused on the first reason given: that ID violates the ground rules of science by invoking supernatural causation. In Dawes' interpretation of this remark, Judge Jones is reaffirming and validating the point of view expressed by Philip Johnson: science has *a priori* ground rules which cannot be violated and one of them is naturalism. For Dawes, whether ID is "scientific" is "a mere matter of definition" and so "it would have been a Pyrrhic victory if it [the ruling] resulted in the exclusion of what is, in fact, the best explanation of some phenomenon" (Dawes 2009, 9). In other words, if intelligent design was in fact a better model than alternative

[1] By "religious explanation" Dawes here means "theistic explanation". He clarifies this in his second chapter: "In the course of my introductory remarks, I have generally used the phrase *religious explanations*. But what I am interested in here are more accurately described as *theistic explanations*.

naturalistic models, it would be counterproductive to dismiss ID on the grounds that it invokes supernatural causation.

The point Dawes is making here is echoed by physicist Sean Carroll: "The stance known as methodological naturalism, while deployed with the best of intentions by supporters of science, amounts to assuming part of the answer ahead of time. If finding the truth is our goal, that is just about the biggest mistake we can make" (Carroll 2016, 133). Similarly, Flemish philosopher of science Maarten Boudry argues that supernatural claims, including theistic claims, can be scientifically assessed (Boudry, Blancke and Braeckman 2010, 227). Boudry, like Dawes, is critical of Jones' argument which says that an adherence to naturalism is necessary for science to operate: "Based on the testimonies of Kenneth Miller, Robert Pennock and John Haught, Jones stated that "This rigorous attachment to 'natural' explanations is an essential attribute to science by definition and by convention"[2] " (Boudry, Blancke and Braeckman 2010, 229). Dawes finds that this "rigorous attachment to natural explanations" is unhelpful. Put simply, if the evidence would have favoured ID, Jones seems to talk as if he would have ruled against ID *despite* the evidence. This is why methodological naturalism, framed in this way, appears to be dogmatic about its embrace of naturalism.

Thus Dawes is not trying to defend intelligent design; he is instead trying to critique the *rationale* given by Judge Jones for rejecting intelligent design, which further lends credence to the claims of critics of science such as Johnson who maintain that science is dogmatically prejudiced against the supernatural. By referring to the "ground rules of science" as excluding the supernatural, Jones' remarks bear a striking resemblance to Lewontin's remarks about

[2] The passage quoted by Boudry et al. is from page 66 of the same memorandum opinion as quoted earlier. Dawes and Boudry both read Jones as advancing the view which says that naturalism is a necessary or essential feature of science.

science disallowing a "Divine Foot in the door". In summary, the problem for Dawes is that methodological naturalism amounts to a kind of dogmatism insofar as it involves dismissing supernatural (and theistic) explanations without considering their merits. For the methodological naturalist, once he or she hears that a proposed explanation involves supernatural forces, he or she is immediately closed to the potential viability of the explanation.

## 1.2 *De Facto* and *In Principle* Objections to Theistic Explanations

Dawes makes a distinction between two kinds of objections to theistic explanations: *de facto* and *in principle.* On the one hand, some scientists and philosophers object to theistic explanations being admitted into scientific discourse because explanations involving a supernatural force have had poor track record of success. (Dawes 2009, 9-11). For Dawes, this is an example of a *de facto* objection to theistic explanations: it warrants "provisional exclusion" of theistic explanations from the sciences (Dawes 2009, 13). This kind of objection recognizes that explanations invoking a supernatural agent can be falsified; indeed it depends upon this recognition. Hence Dawes quotes philosopher Niall Shanks, who lists a number of explanations involving a supernatural element which have been abandoned due to a paucity of evidence, including souls, spirits, astrological influences and extra-sensory perception (Dawes 2009, 13).

By contrast, *in principle* objections would decisively eliminate theistic explanations from scientific discourse altogether. For methodological naturalism to hold water, one would need to construct at least one solid *in principle* argument. An example of an *in principle* objection to supernatural explanations would be to argue that beliefs about the supernatural are not arrived at via inferences from publically-accessible empirical data, but rather via revelation or intuition (Dawes 2009, 10). In this view, claims involving the supernatural cannot be corroborated through any known intersubjective methodology. Another example of an *in principle* objection

would be to argue that statements about "God" are meaningless "insofar as they are open to an indefinite number of interpretations (Dawes 2009, 14). In effect, this would mean that *any* claim about God is unfalsifiable because it is impossible to definitively state what would follow from postulating "God" as an explanatory device. Thus *in principle* objections would categorically rule out any possible appeal to theistic explanations.

Dawes rejects the first objection by arguing that even if a theist originally arrived at her beliefs via non-intersubjective means such as revelation, her theistic views could nonetheless be formulated in such a way as to allow for critical assessment (Dawes 2009, 10). Dawes rejects the second objection by arguing that whether a theistic explanation is unfalsifiable depends upon its particular formulation (Dawes 2009, 15). Other *in principle* objections could be raised but instead of considering each possible objection, Dawes elects to construct an epistemology which is open to considering theistic explanations (Dawes 2009, 16). This represents an alternative way to countering methodological naturalism: instead of rebutting all possible arguments in favour of methodological naturalism (that is to say all possible *in principle* objections against supernatural explanations), one could instead present a positive case showing how theistic explanations can be assessed.

### 1.3 Building a Theistic Explanation

Dawes believes it is possible to construct a methodology in which theistic explanations can be assessed intersubjectively. The goal, to reiterate, is to see whether theistic explanations can satisfy "general standards of explanatory adequacy" (Dawes 2009, 8). Before the epistemological issues involved in assessing a theistic explanation can be discussed, Dawes clarifies what he understands by a theistic explanation. He specifies that he is focusing on God as broadly conceived within the Jewish, Christian and Islamic traditions: a non-physical agent who is

eternal, omniscient, omnipotent, omnibenevolent and who created the world (Dawes 2009, 20). Dawes simply accepts these divine attributes for the purposes of his study.

How should a theistic explanation be constructed? The best way to do this, he argues, is to offer a theistic explanation in the form of an abductive argument (Dawes 2009, 21). Dawes, following the schema of the American philosopher Charles Sanders Peirce who coined the term "abductive reasoning" formulates abductive arguments as follows:

1. The surprising fact, E, is observed.
2. But if H were true, E would be a matter of course,
3. Hence, there is reason to suspect that H is true. (Dawes 2009, 21)

Noteworthy here for Dawes is that this form of reasoning has parallels within the sciences: the history of scientific ideas has examples where unobserved theoretical entities are posited in order to explain some body of evidence. An example would be the positing of the electron (Dawes 2009, 38).

Another name for abductive reasoning is *inference to the best explanation* or IBE for short. Dawes notes that IBE and abductive arguments are particularly well-suited to defend theistic claims for two reasons: they can be used to posit unobserved theoretical entities (e.g. electrons, black holes) and they can be used to posit a causal explanation for an event which is singular in nature (e.g., the big bang or a particular natural disaster) (Dawes 2009, 108). Theistic explanations involve inferring the existence of an *unobserved* entity via *observed* effects. Thus the divine agent, like the electron, can be considered a theoretical entity.

So by their very nature, proposed theistic explanations involve positing a theoretical entity. But the theoretical entity postulated by theists is unlike the theoretical entity posited by

J.J. Thomson, the physicist who discovered the electron. A key feature of the theoretical entity postulated by theists is that it is conceptualized as an *agent* (Dawes 2009, 38). Thus theistic explanation can be thought of as a species of *intentional* explanations: "They [theistic explanations] invite us to see the fact to be explained as the outcome of an intentional action on the part of an agent having particular beliefs and desires" (Dawes 2009, 39). This bears an important consequence: the *kind* of argument needed to support a theistic hypothesis will need to factor in intentionality. How does Dawes address this?

Dawes argues that an intentional explanation can succeed if it satisfies the second line of the abductive schema laid out above: But if H were true, E would be a matter of course. In other words, what needs to be clarified is what H looks like given that theistic explanations are intentional in nature. Given that intentional explanations posit beliefs and desires on the part of an agent, a separate argument needs to be constructed which can then be plugged into the abductive schema. Dawes refers to this as a "practical syllogism" which he schematizes as follows:

1. There exists a rational agent A with intended goal G.
2. A has beliefs B1, B2,… Bn relating to the attainment of G.
3. If B1, B2,… Bn were true, E would be the best way of achieving G.
4. Rational agents always choose the best way of achieving their goals.
5. Therefore A will do E. (Dawes 2009, 73-74).

To simplify, what Dawes is imagining is that this practical syllogism replace the second line of the abductive schema, so it would look like this:

1. The surprising fact, E, is observed.

2. But if H were true, E would be a matter of course, H being the subclause:
    a. There exists a rational agent A with intended goal G.
    b. A has beliefs B1, B2,… Bn relating to the attainment of G.
    c. If B1, B2,… Bn were true, E would be the best way of achieving G.
    d. Rational agents always choose the best way of achieving their goals.
    e. Therefore A will do E.
3. Hence, there is reason to suspect that H is true.

While this may seem like an overly mechanical way to think about the problem, the important take-away from this schema is this: if a theistic explanation is to succeed, it must avoid the fallacy of merely asserting that some observed fact counts as evidence for theism. A theistic explanation will lack empirical content if it merely ascribes some fact as the result of divine will (Dawes 2009, 44). For Dawes, it is precisely because theistic explanations are a type of *intentional* explanations that the theist must specify the intent of the deity: "A proposed theistic explanation should tell us not merely *that* God willed the fact-to-be-explained E; it should tell us *why* God willed E" (Dawes 2009, 45).[3] By positing the intent behind the action, the first steps towards independent corroboration are taken. If we know why the divine agent acted in a particular way within a particular context, an opportunity to test this explanation could arise if a similar scenario occurred in the future.[4]

[3] This requirement is not meant to obstruct the theist's case. To the contrary, it is through positing the intentions of the divine agent that the theist gives her case empirical content. For instance if we observe a person open a window, an intentional explanation would not merely state that this person opened the window. An intentional explanation would offer a reason (an intention) behind the behavior, for example that she wanted to get fresh air. This is the sort of thing that allows for the explanation to obtain corroboration (Dawes 2009, 164-165).

[4] I return to the tricky business of attempting to predict behaviour in sections 1.4 and 3.2.

While it may be a tall order for a theist to present a theistic argument in such a manner, Dawes' goal is to maximize the potential of a theistic explanation. Consider, for contrast, an alternative theistic argument:

1) God wills E.
2) Whatever God wills comes about.
3) Therefore E.

The problem for Dawes with this particular construction is that it lacks empirical content and therefore testability (Dawes 2009, 30). Put simply, it fails to spell out precisely what would follow from the hypothesis if it were true. Thus, corroboration becomes impossible. Of course a theist might believe that whatever God wills comes to pass, but the argument itself does not tell us anything. It does not predict anything; it does not retrodict anything. The argument merely ascribes that every phenomena in the world is the result of divine will. If we took this argument seriously, we would look around the world and simply assert that every fact we observe was willed by God, since whatever there is has been willed by God. The way this argument is constructed results in a lack of empirical content; it is unfalsifiable.

So in order to give a theistic explanation empirical content, the theist must posit the intended goal G of the divine agent. But if a theist were to offer us a proposed divine goal G, how would that lend the argument empirical content? In other words, even if a goal is offered, how could we know how God would choose to attain that goal? If we have no idea what to expect, then the explanations remains untestable. But Dawes thinks that theistic explanations, given the unique attributes of God, possess a unique feature. Humans may have beliefs which are incorrect and incomplete, hindering their ability to attain their intended goal. But as mentioned

earlier in this section, Dawes accepts for the sake of argument the traditional attributes given to God within Judaism, Christianity and Islam: omniscience, omnipotence, omnibenevolent, and eternality. Thus Dawes maintains that since the God of classical theism is understood to be omniscient, God would have all the relevant (and irrelevant) correct beliefs (B1, B2… Bn) about how to attain the intended goal G (Dawes 2009, 85). Dawes also suggests that unlike humans who may be hampered in various ways in achieving their goal, God has no such external constraints on his actions given his omnipotence. What follows from this is what Dawes refers to as the *optimality condition:* for any divine goal the theist posits, we need to assume that God would take the best possible action towards achieving said goal (Dawes 2009, 89). What would optimal divine action look like? Dawes believes that optimal divine action would have at least two features: it would be maximally efficacious and consistent with the divine's own nature. A concrete example will help illustrate this:

> We expect a rational agent to act in a way that is consistent with his other beliefs and desires, or consistent with his character. From God's point of view, it may not matter that evolution by natural selection takes a long time. He has plenty of time to waste. But on the assumption that God is morally perfect, it does matter if natural selection necessitates considerable suffering. Would it be rational for an omnipotent, omniscient, and benevolent being to choose *this* particular way of bringing living creatures into existence? We can see now that at least in some forms of the atheist's argument from evil are, in fact, suboptimality arguments. They try to render the theistic hypothesis of divine creation implausible by suggesting that God could have created a world containing less suffering (Dawes 2009, 89)

Along the same lines, Dawes considers the following thought experiment: "If we were to specify how an omniscient, omnipotent, and morally perfect God would create a world, *independent of what we now know of the world's origins,* what would we come up with? (Dawes 2009, 89). Here the contemporary view known as "theistic evolution," or the belief that God "used" evolution to bring about humans is problematized. If we take seriously the proposed attributes of God, does it make sense to suppose that he would need an evolutionary mechanism in order to bring about sentient life? Under Dawes' approach, the problem is that such an explanation would violate the optimality condition in that it would be incongruent with the divine agent's posited attributes.

If we were to apply Dawes' logic to a biblical miracle, such as the resurrection of Jesus, how might the argument work? Well, it depends how the theist formulates it. If the supposition is that God raised Jesus from the dead, the theist must posit the divine goal, since it lacks empirical content to merely assert that God willed it and whatever God wills comes about. If the theist suggests that God raised Jesus in order to begin a new religious movement, then under Dawes' approach, one might respond by pointing out that this fails to meet the optimality condition. If God wanted to spread a particular message, why not simply send the message to all, across culture and across time?

One issue with the above example is that abductive arguments begin with uncontested facts, and in this instance the resurrection is contested. Perhaps a more pertinent example has to do with the nature of the biblical text itself. A theistic explanation of the biblical texts might appeal to revelation or inspiration, whereas a naturalist explanation would appeal to more mundane factors. But if we were to take the theistic explanation seriously, what follows? New Testament scholar Bart Ehrman raised this point in a debate with theologian James White: "My

view is that if God wanted you to have His words, He would have given you His words. He didn't give you His words because His words, in places, are not preserved. So why do you think He inspired the words in the first place?" (2009, 44) Ehrman does not use Dawes' jargon, but the objection here is one-to-one analogous to what Dawes calls a suboptimality argument: the posited divine goal (which Ehrman accepts for the sake of argument) is that God wanted to give humankind his words, and yet the textual history of the New Testament problematizes the claim that we still have his actual words, in the form of the original manuscripts. For Ehrman, the hypothesis that God wanted humankind to have his words is problematized by the empirical record. The important point here is that this problem occurs because there is an apparent mismatch between the hypothesized divine goal and the empirical realities of New Testament textual history. The logic of Ehrman's argument requires the listener to recognize that God, being God, could have given us his words more efficaciously, that is to say God could have preserved the original texts. In short, Ehrman's objection is a formulation of Dawes' optimality condition.

In this section I summarized how Dawes constructs a theistic explanation. In short, theistic explanations can be argued via abductive reasoning, and they have two key features: first, they are intentional explanations and thus require what Dawes calls a "practical syllogism" to be plugged into the abductive schema; and second, theistic explanations must fulfill the optimality condition. This first feature flows from the nature of theistic explanations: they are intentional in nature. The second feature flows from the attributes which God is conceived of having in Judaism, Christianity and Islam, which for the sake of his study Dawes grants as a given.

## 1.4 Evaluating Theistic Explanations

Dawes closes *Theism and Explanation* with a best-case-scenario for theism. Supposing that the theist has mounted an explanation in the form of an argument which fulfills the optimality condition and fulfills the abductive schema combined with the practical syllogism as laid out above, what follows? For Dawes this best-case-scenario theistic explanation would be a *potential explanation* (Dawes 2009, 22). But this would not make the explanation in question the *best* explanation or the explanation which warrants acceptance. How does Dawes think we should choose between different potential explanations?

"Explanationism" is the term Dawes uses to label his view of theory justification (Dawes 2009, 26). He defines explanationism as: "the view that we are justified in accepting a potential explanation when it displays, to a greater degree than any other competitor, certain explanatory virtues, *even if we cannot demonstrate it to be probably true*" (Dawes 2009, 27). In a non-exhaustive list, Dawes identifies six explanatory virtues. The first is testability: an explanation is to be preferred if it is testable, and preferred all the more if it has survived repeated testing. For an explanation to be testable, it must spell out which state of affairs it predicts: if an explanation can be made consonant with any possible observation then it is not testable (Dawes 2009, 116-117). The second is consistency with background knowledge: an explanation is to be preferred if it is consonant with relevant facts or explanations which have been established (Dawes 2009, 126). The third is past explanatory success: an explanation is to be preferred if similar kinds of explanations have proven to be successful in the past. Dawes states that this criterion could be collapsed into the previous criterion (Dawes 2009, 131). The fourth is simplicity: an explanation is to be preferred if it requires fewer auxiliary hypotheses in order to explain the fact in question (Dawes 2009, 132-133). Put simply, if an explanation requires us to repeatedly "explain away"

disconfirmatory evidence by invoking special clauses or *ad hoc* auxiliary hypotheses, this should count against our willingness to accept it. The fifth is ontological economy: an explanation is to be preferred if it adheres to Ockham's razor, or the principle which says that entities are not to be multiplied beyond necessity (Dawes 2009, 136). The sixth is informativeness: an explanation is to be preferred if it can generate precise predictions (Dawes 2009, 138).

Dawes acknowledges that this list could be compacted into "three or four" criteria (Dawes 2009, 116). Among the six criteria he details, theistic explanations will consistently score low against the criterion of consistency with background knowledge and the criterion of past explanatory success (Dawes 2009, 126, 132). This recalls the earlier remarks about the poor track record of explanations which invoked supernatural causation. Dawes reiterates that these two criteria, consistency with background knowledge and the criterion of past explanatory success (which could arguably be condensed into one criterion), are obstacles which a theistic explanation could in principle surmount. These criteria establish a "defeasible presumption in favour of natural explanations" (Dawes 2009, 132). The key point here is that even if theistic explanations score low vis-à-vis the criterion of past explanatory success, a theistic explanation could in principle score highly with regards to the other criteria. Thus, a dogmatic naturalistic or atheistic stance is unwarranted, for we have only arrived at a *defeasible presumption* in favour of naturalism.

In the final analysis, Dawes concludes that we cannot exclude the "bare possibility" that a theistic explanation might one day be successful, however remote the chances of this may be (Dawes 2009, 144). But this issue, he insist, cannot be adjudicated *a priori:* there is no sweeping *in principle* argument against theistic explanations which can eliminate this bare possibility (Dawes 2009, 145). In the end, theistic explanations need to be evaluated on a case-by-case

basis: whether or not a particular theistic explanation is testable for instance depends upon how it is formulated (Dawes 2009, 117). While it is true that historical track record of theistic explanations and other supernatural explanations leave something to be desired, this alone does not justify ruling such explanations out altogether. If one is convinced by Dawes' arguments, then he has accomplished two things: he has shown the elements that a successful theistic explanation would have, and he has offered an epistemological framework which allows these well-formed theistic explanations to be intersubjectively assessed.

## 1.5 Critical Analysis: Theism as a Science?

I have sketched Dawes' system so that I may refer back to his key points later on, particularly in Chapter Three where his ideas will encounter the views of McGrath and Southgate. For now, I will raise some of my own concerns with Dawes' arguments. In raising these criticisms my intent is not to tear down Dawes' overall project, but to sharpen it.

As I see it, Dawes' system is reinforced by mutually interlocking arguments. As such, a weakening of one of these points impacts the overall system. Let me give a clear example. Dawes suggests that intentional explanations in general (and theistic explanations in particular) can be regarded as "scientific" insofar as they can yield testable predictions (Dawes 2009, 9). Dawes defends the claim that intentional explanations (with regards to humans) are valid because given certain beliefs and desires we can make predictions about how a person will act (Dawes 2009, 164). The problem, as Dawes himself admits, is that all intentional explanations will require a *ceteris paribus* (all things being equal) clause (Dawes 2009, 166). Put simply, if a proposed intentional explanation fails, the explanation can always be salvaged by positing some extenuating factor for why the agent did not act according to our prediction. Thus, given that auxiliary hypothesis can always be made in order to rationalize a failed test, it is not clear that

intentional explanations are in the end testable. If intentional explanations are not testable, then they are not scientific by Dawes' own definition.

Compounding this problem is that Dawes is seeking to construct an intersubjective means of assessing *theistic* explanations. Theistic explanations differ from intentional explanations involving humans by the very fact that they posit a theoretical agent with attributes different from humans. While we might expect a person who has a set of beliefs and desires to act a certain way, it is not obvious how this sort of reasoning translates to a divine agent who can supposedly directly "will" his goals or intentions into existence. So if intentional explanations are not testable in a straightforward manner, *theistic* explanations add another layer of problems. Does it make sense to even attempt to postulate how a divine being would act in a given scenario?

These are two distinct objections: the first questions the testability of intentional explanations in general; the second questions the testability of theistic explanations in particular. Dawes himself anticipates these objections, so I will raise them and analyze his response. Let me begin by focusing on the second of these objections.

Dawes uses the term "theological scepticism" to identify the position which says that we are unable to make judgements about how a divine being *would* act in a given scenario (Dawes 2009, 78). If this is the case, then it constitutes a successful *in principle* objection to theistic explanations: it would mean that no proposed theistic explanation could have any predictive power whatsoever (Dawes 2009, 79). Dawes' answer to this is that we are warranted, when offering a theoretical explanation, in making use of assumptions and inferring what would follow

from these assumptions (Dawes 2009, 84).[5] But on what basis can we make these assumptions? Is it not the case that theism is so undefined that it could entail any possible state of affairs? Dawes thinks he can overcome this objection with his optimality condition. The optimality condition (discussed above in 1.3) puts a *constraint* on how theistic explanations can be formulated. It bars theists from making explanations in which the divine goal is not optimally achieved. For example if a theist argued that God wanted to create humans which could fly, then it would be inconsistent with this posited goal for humans to be terrestrial mammals. Of course, the theist could shift his posited divine goal, suggesting instead that God wanted to give us the mental capacity to create flying machines. But even this would strain the optimality condition for it suggests that humans would intuit facts about engineering and aerodynamics. Of course, the theist could shift his posited divine goal further. This brings us to the problem of the testing intentional explanations.

Dawes recognizes that intentional explanations, by their very nature, are not law-like (Dawes 2009, 161). This means that when testing an intentional explanation, one cannot assume a one-to-one correspondence between theory and observation. This is due to the fact that intentional explanations are subject to a *ceteris paribus* clause: *all things being equal,* I would turn on the air conditioning if the room I am in is getting too hot. The problem is, this explanation would not easily be disconfirmed by observing an instance where I remained seated in a similar situation. If one had to explain this, one could posit a number of auxiliary hypotheses: I was too focused on writing; I (incorrectly) believed the air conditioning unit was already turned on; I am trying to avoid an overly high electric bill, etc. But is this a sufficient

[5] In arguing against theological scepticism, Dawes is countering the argument made by philosopher of science Elliot Sober (Dawes 2009, 83-84). Dawes reads Sober as suggesting that theists have no basis in even theorizing about the goals and intentions of a divine being.

objection against the testability of intentional explanations? Dawes thinks it is not. One reason he offers is that "most explanations, even those in the natural sciences, also employ *ceteris paribus clauses*" (Dawes 2009, 166). Another reason he offers is that intentional explanations involve generalizations about behaviour, which while not law-like, are nonetheless reliable (Dawes 2009, 162).

Dawes' responses to these two objections concerning the testability of theistic explanations in particular and intentional explanations in general are convincing only to a degree. The main problem, as I see it, is that Dawes begins his work with the suggestion that theistic explanations can be thought of as a kind of scientific explanation. But he immediately qualifies this by saying that intentional explanations may not rise above the level of "folk science" (Dawes 2009, 9). By this I take Dawes to mean that he is not trying to establish a rigorous science of human behavior, but rather a form of lay or colloquial way of reasoning about human action and intentionality. Later he refers to intentional explanations as partaking in "folk psychology" which involves using our intuitive notions of psychology, with references to concepts such as "beliefs" and "desires" (Dawes 2009, 39). But if the entire project is to consider the possibility of a theistic explanation rising to the standards of the natural sciences, these statements betray that project. On the other hand, if we relax the standard set upon Dawes by himself, we are left with a powerful tool in the form of an epistemology or methodology which can help us evaluate (even if not *scientifically*) the value of theistic explanations.

## 1.6 Theistic Explanations and Empirical Inquiry

In unpacking Dawes' claims, we can clearly see that Dawes is inspired by the scientific enterprise. His philosophical arguments are laced through and through with terms relating to scientific epistemology. Scientific methodology thus implicitly becomes the standard for

rationality within his work. In this section, I explore the possibility of scholars taking Dawes' system seriously within fields outside of the natural sciences, fields that employ an empirical methodology albeit in a less rigorous manner.

Let me begin with a distinction made by philosopher Stephen Law. Writing about the possibility of critically evaluating claims which invoke supernatural forces, Law writes:

> Is it true that beliefs about supernatural agents, gods, powers, and other phenomena are essentially immune to scientific refutation? Might they be immune to *any* sort of rational refutation? […] But actually, some supernatural claims may be refutable—even empirically refutable—even if they're not, properly speaking, scientifically refutable. The two preliminary points I'll now explain are:
>
> 1) not all refutations are scientific, and
>
> 2) not all empirical refutations are scientific. (Law 2011, ch. 1)

What Law means by "not all empirical refutations are scientific" is akin to Dawes' use of the term "folk science". Both are referring to an instance in which an individual makes rational inferences based on empirical observations. This individual's thought process may not be systematized, subjected to peer-review or mathematically modeled, but it may involve making weighing alternative explanations, generating predictions or retrodictions and so on. The distinction I am trying to make here is between a strict, rigorous scientific methodology on the one hand, and a less rigorous but nonetheless empirical methodology on the other.

This looser kind of empirical methodology is embodied within some academic disciplines. Dawes suggests that the "folk psychology" involved in positing intentional

explanations is present in fields where human action is interpreted, such as history or anthropology (Dawes 2009, 39). This is the only moment in the book where Dawes refers to history as a discipline, which is quite surprising, given that the task of a historian involves accounting for some body of evidence. Historians, like many theistic philosophers, are less interested in *predictions* than they are in *retrodictions*. As such, there is arguably a greater overlap between historical epistemology and theistic epistemology than there is between scientific epistemology and theistic epistemology.

Let me give an example. When Dawes discusses his theory of justification (explanationism) he links it back to the natural sciences. Dawes claims his way of evaluating theories has precedence in the natural sciences, even if the thinkers of the past did not conceptualize their theory of justification in Dawes' jargon. By way of example, he argues that while Darwin might not have been able to address the challenges raised against his theory of natural selection, the theory nonetheless was worthy of "acceptance" because it exhibited some of the aforementioned explanatory virtues (e.g. consonance with background knowledge, informativeness, etc.). Hence Dawes writes:

> Darwin himself was very aware of the difficulties facing his theory. […] So if Darwin's theory was worthy of acceptance in 1859, it was not so much because of its overall probability given the evidence, but because it displayed some highly desirable features. It was capable of explaining a range of hitherto puzzling phenomena. It posited a mechanism (natural selection) for which there existed a familiar analogy (artificial selection). And it was potentially fruitful, suggesting new lines of research. (Dawes 2009, 26-27).

But a much more obvious parallel to Dawes' explanationism can be found in the work of C. Behan McCullagh who in his *Justifying Historical Descriptions* argues that a historical theory should be accepted if it meets certain criteria (McCullagh 1984, 19). McCullagh's list of seven desirable features of a theory is strikingly similar to Dawes' list of explanatory virtues. For example McCullagh states that a successful theory will be more consonant with background knowledge, as well as require less *ad hoc* hypotheses than a rival theory. This corresponds, respectively, to Dawes' criteria that a theory should be consistent with background knowledge and should be simple (i.e. require few auxiliary hypotheses). Elsewhere McCullagh discusses what it means for historians to make generalizations in the past given that human behaviour is not law-like (McCullagh 1984, 134). Again this has a parallel in Dawes' work when he discusses whether intentional explanations can be mapped in a law-like manner (Dawes 2009, 161).

The point I am trying to make is that historians face some of the epistemological issues raised by Dawes insofar as Dawes' system works with intentional explanations and the historian's task involves giving an account of past human action. Moreover historians *of religious traditions* are all the more affected by these issues insofar as they are historians *and*, potentially at least, are confronted with the supernatural claims of the religious traditions themselves.

Of course, a historian of religion may be entirely disinterested in the "supernatural" dimension of a given religious tradition. But it is not difficult to find historians who suggest that it is illegitimate to attempt to assess the content of the religious beliefs themselves. For example, in his survey of the development of historiography, Gilderhus discusses modern historical consciousness as being characterized by its abandonment of pursuing teleological explanations:

> In the modern age, history, much like other forms of academic inquiry, abandoned attempts to determine ultimate or final causes. […] No modern scholar working in a reputable field can legitimately claim to possess the means by which to verify any statements about the role of divine influences in the physical and historical worlds. As manifestations of faith, such statements are not subject to proof by reason and evidence but rather occupy a position in another category of discourse. Consequently, historians as historians cannot with any veracity address such matters and must concentrate their efforts on devising methods by which to expand their understanding of the knowable world. (Gilderhus 1996, 29-30).

By now, this is a familiar objection: it is in Dawes' terms an *in principle* objection to teleological (theistic) explanations. In this regard, Dawes is perhaps too narrowly focused on the sciences when he talks about the exclusionary naturalism of the modern sciences (Dawes 2009, 1, 5). For example, the *in principle* objection to supernatural causation exists within the field of New Testament studies in the writings of Bart Ehrman (Ehrman 2000, 14, 211-212) and Dale Martin among others (Martin 2008, 42).

## 1.7 Conclusion

In this chapter I explored the epistemological system in Dawes' *Theism and Explanation*. I highlighted the key features of his system, and suggested that while Dawes fails at offering a theistic explanation which rises to the level of being considered "scientific", his system is worthy of further consideration if we understand the system as offering us an intersubjective empirical means of assessing theistic explanations. Dawes believes that theistic explanations can be assessed by measuring theistic explanations against a set of explanatory criteria. This approach is different from methodological naturalism, defined as an *a priori* rejection of theistic explanations

(and supernatural explanations more broadly), insofar as it is open to considering theistic explanations among the pool of possible explanations. In Dawes' view, methodological naturalism is guilty of a kind of dogmatism because it suggests that certain kinds of explanations should be taken off the proverbial table. Dawes is thus in broad agreement with the physicist Sean Carroll and the philosopher Maarten Boudry: if a theistic (or supernatural) explanation is justified or warranted by the empirical evidence, then scientists (or more broadly, social scientists, historians, and other scholars) should pursue such an explanation. The best explanation, whether it involves a supernatural force or not, should be explored. The key issue revolves around how we determine what the best explanation is, and thus the issue is fundamentally epistemological. In the next chapter, I explore the works of two Christian theologians who each in their own way affirm the viability of theism.

# Chapter Two: On Alister McGrath & Christopher Southgate

In the previous chapter I discussed the work of Gregory Dawes who argued that we can assess theistic explanations via abductive reasoning and inference to the best explanation. Alister McGrath and Christopher Southgate are two theologians, who, unlike Dawes, affirm Christian theism. For the purposes of this thesis I am less interested in comparing their theological conclusions than I am in comparing their *epistemological* approaches to theistic explanations. In this chapter I explore the ways in which they each justify their theological perspectives. A number of interrelated issues are raised: Is explanation crucial to theology? How can theistic explanations be verified or corroborated? Do background assumptions play a role in interpreting phenomena theologically, and if so, can a theistic framework really be considered more sound than alternative theistic frameworks? Do they consider empirical evidence or scientific inquiry to be completely independent from their theistic views? Are their theistic claims founded upon or buttressed by empirical evidence?

In exploring the perspectives of McGrath and Southgate, similarities and differences will be highlighted. A key similarity is that both believe that the observer has to interpret the world in order to make sense of it, and that it is not the case that the external world is imprinting its reality upon the passive observer. A key difference however is that McGrath is weary of the relativism which may follow from this recognition. Thus McGrath, unlike Southgate, is more interested in finding a way to positively affirm the explanatory force of Christian theism.

## 2.1.0 Alister McGrath's approach to natural theology

McGrath has written extensively on the relationship between theology and the scientific method. For this thesis I opt to focus on his book *The Open Secret: A New Vision for Natural*

*Theology* (2008) in which he more succinctly restates many of the claims he made in his earlier three-volume *magnum opus* entitled *A Scientific Theology* (2001-2003). These works can be described as an exploration of how theoretical and methodological issues in the philosophy of science relate to theology. For the purposes of my thesis, the key statement made in *The Open Secret* is McGrath's claim that natural theology can provide the best explanation of worldly phenomena:

> Such an approach [naturally theology] will be both internally coherent and grounded in reality, recognizing that it represents a tradition, while claiming that this tradition offers the best explanation of what may be observed in nature, culture, and human experience – including the existence of rival traditions. (McGrath 2008, 170)

In what follows I will tease out the core themes of McGrath's project. I will show that McGrath's views on the relationship between science and theology can be described as partially overlapping in that both human endeavours attempt to offer explanatory models of the world and both do so by way of appealing to a common epistemological tool, namely inference to the best explanation.

McGrath's aim is to lay the foundations of a new approach to a Christian form of natural theology: "This book sets out to develop a distinctively Christian approach to natural theology" (McGrath 2008, 3). McGrath advocates for a kind of natural theology which he describes as an "empirical discipline" (McGrath 2008, 11). By this, McGrath suggests that natural theology, specifically of a Christian variety, has explanatory potential: "The explanatory fecundity of Christianity is affirmed, in that it is seen to resonate with what is observed" (McGrath 2008, 17). As an explanatory framework, the goal is not to offer "proofs" for the existence of God, but to defend the claim that "the Christian worldview" offers an interpretation of the world which

offers “explanatory fecundity” (McGrath 2008, 16-17). Put differently, McGrath claims that natural theology can “attempt to make intellectual sense of our experience of nature” (McGrath 2008, 18). Elsewhere, McGrath uses the term “interpretative framework” to characterize natural theology (McGrath 2008, 28). Ocular metaphors such as “spectacles” and “lens” are invoked to describe theism as a way of understanding the world (McGrath 2008, 3, 309). When McGrath speaks of frameworks of interpretations, what he is really referring to is matching up observations with theories. Observations in and of themselves do not prove or disprove theories, but they may be in tension with or concordant with certain worldviews or interpretative frameworks. Thus McGrath describes his approach to natural theology as one that “holds that nature reinforces an existing belief in God through the resonance between observation and theory” (McGrath 2008, 18).

So natural theology according to McGrath aims to offer an explanatory framework. But if natural theology is meant to explain, what are the objects of explanation? McGrath provides a non-exhaustive list:

1. The apparent ordering of the universe, which is accessible and intelligible to the human mind;
2. A fruitful cosmic history, including the suggestion that it is “fine-tuned” for the emergence of life;
3. The interconnectedness of the universe, which resists reduction to its individual parts;
4. The coexistence of disorder and order within the world;
5. A generalized human awareness of the transcendent. (McGrath 2008, 237). [Side note to be deleted: the semi-colons are in the original text]

In keeping with the notion that natural theology is an empirical discipline, these examples relate to empirical phenomena. That is to say, McGrath is claiming that theism can account for empirical phenomena such as the human propensity for belief in the transcendent. One may object that McGrath's wording in these five points is somewhat vague; for instance it is not clear what "apparent ordering of the universe" means. But insofar as McGrath is pointing to observations or empirical realities, empirical inquiry can proceed. The problem is that for any one of these phenomena one can easily imagine a skeptic coming up with alternative naturalistic explanations. So how is one to assess the competing explanations? The mechanism that McGrath proposes to use in order to assess alternative accounts for the same phenomenon is inference to the best explanation or IBE for short (McGrath 2008, 235).

As I have suggested, IBE is a theory-assessment tool. It is employed to weigh alternative hypotheses or explanations for some given phenomenon or set of phenomena. While the phrase IBE was coined by Gilbert Herman in the 1960s, McGrath contends that it bears close resemblance to Charles Peirce's concept of abductive reasoning (McGrath 2008, 235). As McGrath summarizes, IBE involves positing a set of criteria against which alternative explanations are measured. These include: "simplicity, elegance, consilience and concision" (McGrath 2008, 236). It is difficult to assess McGrath's use of these criteria. McGrath himself adds other explanatory criteria such as "degree of empirical fit" and "fecundity" (McGrath 2008, 170), and avoids discussing any one of these criteria in a comprehensive manner. Unlike Dawes who in *Theism and Explanation* discusses his own list of explanatory criteria in a systematic way (Dawes 2009, 116-142), McGrath does not go through each of his five posited *explananda* and elaborate upon how his theistic framework satisfies his list of criteria. McGrath's criteria, even if not employed systematically, are uncontroversial.

Still, McGrath recognizes the potential pitfalls of invoking explanatory criteria. For instance he recognizes that the criteria themselves can be contested (McGrath 2008, 235). Even if two scholars agree on a list of criteria they may disagree about the relative importance of each criterion.[6] For example, suppose in the early 16th century we were observing a debate between two astronomers, one a follower Ptolemy and the other a follower of Copernicus. The former might argue that a geocentric model is more consonant with background knowledge, but the latter might argue that a heliocentric model is more parsimonious in that it need not appeal to epicycles in order to explain the apparent retrograde motion of the planets. The point in this example is not that the background knowledge of the follower of Ptolemy was incomplete (as 16th century observers we probably would not have known this), it is that an explanation may score highly with regards to some criteria A and B, but an opposing explanation might score highly with regards to some other criteria C and D. Thus it falls on the scholar to engage in a kind of balancing act with the criteria. IBE in this sense is not a rigorous adherence to a step-by-step protocol.

Despite potential problems inherent in the employment of explanatory criteria, McGrath remains confident in the viability of inference to the best explanation because, as he sees it, the scientific method is founded upon it. McGrath writes:

> Notwithstanding these difficulties, however, it remains an entirely legitimate judgment that the scientific method itself ultimately represents an abductive engagement with the observation of the world. One may entirely reasonably extend this to argue that an

[6] In chapter 3 I discuss an example from New Testament text criticism, where scholars use certain criteria in order to establish the likelihood that a particular textual variant is the original reading. Sometimes the criterion of multiple attestation outweighs the criterion of internal consistency, but sometimes the criteria of internal consistency outweighs the criterion of multiple attestation. Thus the scholar must engage in a balancing act.

> acceptable degree of "empirical fit" or "empirical adequacy" is a necessary yet not adequate condition for holding a belief. An empiricist method, it must be stressed, can accommodate without difficulty the transcendent in general, and belief in God in particular. (McGrath 2008, 236)

At this key juncture, McGrath interlaces scientific rationality with theology. The key phrase is McGrath statement that an empiricist method can accommodate God or the transcendent. He thus rejects a dichotomy between theology and science in which the former is interested only in what is beyond the natural and the latter is restricted to the natural. *Both* the scientific method and natural theology involve positing explanatory frameworks of the world, though McGrath cautiously avoids reducing natural theology to merely an explanation-formulating endeavour. Hence McGrath does not think that natural theology is reducible to a science, but maintains that theory-forming is an "integral" part of natural theology: "This does not mean that such a natural theology is restricted to, still less defined by, such a sense-making exercise. It is, however, to recognize that such an undertaking is an integral, yet not defining, aspect of its task" (McGrath 2008, 137).

### 2.1.1 McGrath's response to the postmodern critique

Given that McGrath is interested in affirming a Christian natural theology as a worldview, the question of veracity is crucial. McGrath is not merely trying to offer *a* way of seeing the world, he wants to suggest that his particular approach is worthy of acceptance. Thus McGrath's theology wants to claim something more than merely being *an* interpretation or *a* framework or *a* worldview among others. This leads McGrath to take up the relativistic strain of thought within postmodernism. The specific problem McGrath has with postmodern thought is the notion that correctness and meaning are social constructions:

> This point is often summarized in Derrida's slogan *il n'y a pas de hors-texte*, carrying with it the idea that there is no extratextual reality which can be invoked to determine whether a text has been read "correctly." Postmodernity generally takes the view that the meaning of texts is incoherent, indeterminate, or something that is to be decided by the reader. For postmodern writers, there is no "meaning in the text"; the meaning is constructed, supplied or imposed by the active reader. (McGrath 2008, 154).

As McGrath sees it, this postmodernist argument poses an important challenge to Christians because both the biblical text and "the book of nature" require interpretation (McGrath 2008, 154-155). McGrath accepts the notion that texts or phenomena require interpretation, but he takes issue with the notion that we have no means of assessing competing interpretations.

To a degree, McGrath has some affinity with the postmodern sentiments laid out above. For example, he writes about how the concept of "nature" is a culturally-defined construction: "It has become clear to me that the concept of 'nature' is a serious candidate for the most socially conditioned of all human concepts" (McGrath 2001, 88). On the other hand, McGrath thinks that postmodernists who dismiss the notion of universal truth have overstated the problem. According to McGrath, this is most evident in postmodern critiques of the natural sciences:

> The assertion that the natural sciences are able to offer an empirical approach to reality which is independent of culture, gender, class and language poses a formidable challenge to the postmodern rejection of universal truth. […] The postmodern critique of the natural sciences has achieved a very limited degree of success" (McGrath 2001, 122).

For McGrath, it is simply not the case that reality permits for an indefinite number of interpretations. Put succinctly, "Reality acts as constraint upon the reflections and theories of the natural sciences" (McGrath 2001, 123).[7]

For McGrath, if the natural sciences can overcome this problem, so too can natural theology. This is done by way of appealing to their shared epistemology: if both enterprises partake in offering explanations (or interpretations) of the world, then we return full-circle to the issue of how we assess alternative explanations. For McGrath, the postmodernist challenge does not negate the pursuit of truth, but rather sharpens it:

> A critical attitude to the Enlightenment on this specific issue does not lead to the problematic conclusion that no degree of objectivity is possible at all, so that all beliefs or interpretations can be held to be of equal merit. The proper response to the Enlightenment's unrealistic aspirations to objectivity is not to abandon any attempt at critical evaluation of interpretative possibilities, but to encourage a realistic and cautious attempt to determine which of the various interpretations of nature may be regarded as the "best explanation," as judged by criteria such as parsimony, elegance, or explanatory power. (McGrath 2008, 155)

McGrath's natural theology is thus consonant with *critical realism*, a term used to denote the view which affirms both the reality of an external world independent of human cognition, but also affirms that our perceptions of that reality are historically and culturally conditioned (McGrath 2008, 11-12). McGrath does not affirm *naïve realism,* or the view that reality simply

[7] The metaphor of reality acting as a "constraint" is repeated in The Open Secret (McGrath 2008, 12, 74).

reveals itself to us while we passively observe. Hence McGrath's natural theology does not simply dismiss the postmodern challenge; it is in fact informed by and responding to it.[8]

### 2.1.3 McGrath's case for Christian natural theology

Thus far we have seen that McGrath believes that there is convergence between the scientific method and natural theology in two ways: first, both have overlapping aims insofar as both attempt to offer explanations of empirical realities and second, both have recourse to the same toolkit, namely IBE. We have also seen that while McGrath recognizes the challenge posed by postmodernists who are skeptical of universal truth, an informed and critical approach to rationality and truth are to be preferred over sheer relativism (McGrath 2008, 170). McGrath suggests that attempts towards finding the best explanation may still be fruitful. How then does he follow this through? Is theism, and in particular Christian theism, the best explanation of some phenomena?

McGrath advocates for a "Christian understanding of nature" (McGrath 2008, 4). He refers to Christian theology as providing a "set of spectacles" through which the transcendent can be seen in nature (McGrath 2008, 3). This kind of theism is to be distinguished from other "generic" forms of theism (McGrath 2008, 17) or deistic worldviews in which God is conceived of as only having a role in the primordial phase of creation but not thereafter (McGrath 2008, 199). In fact, McGrath sets his particular understanding of Christian theology up against a host of worldviews, including non-religious worldviews (McGrath 2008, 185). The weight of McGrath's thesis should be underlined: it is not merely a claim about the existence of a transcendent reality, but it is the claim that a particular framework (Christian theology) makes *better* sense of reality than any rival framework (McGrath 2008, 249).

[8] McGrath's criticism of postmodernist anti-realism is perhaps best developed in the second volume of *A Scientific Theology*, in particular pp. 177-188.

How then does McGrath maintain this position in practice? Despite McGrath's criticism of postmodernist relativism and insistence upon the importance of IBE, he hedges his aspirations in his chapter "Natural Theology and Truth". Instead of defending the position that Christian natural theology can offer the *best* explanation of some phenomena, McGrath gives himself a veritable escape clause: "Does belief in God – especially the God of the Christian faith – represent the best, or at the least a viable, explanation of what is known of the world?" (McGrath 2008, 234-235). The additional condition, that belief in the "God of the Christian faith" could at least be "viable" allows McGrath to simply posit theological interpretations or understandings of certain phenomena *without* arguing for why it should be preferred over other understandings or interpretations.

The problem with this qualification is that there is a marked difference between what one might consider a "viable" explanation and the best explanation among a pool of explanation. McGrath does not define what he means by "viable," but I take him to mean something along the lines of "defensible," "possible" or "potential." This is a strange hedge, since whether any possible explanation ought to be preferred has been the key question from the start. This shift will manifest itself, as I will show, in instances where in that McGrath claims that Christian theism can accommodate certain features of the world which seem at first glance to be incongruent with it. But accommodation in this sense is a weak standard of evidence: it represents the difference between asserting that X supports worldview Y as opposed to saying X can be interpreted as being compatible with Y. In both of the examples below, McGrath claims that different facts about the world can be "accommodated" within a theistic framework.

One example of this comes from the field of cognitive sciences. McGrath remarks that while some cognitive researchers of religion hold that belief in supernatural beings is an "almost

irresistible natural tendency", (suggesting that belief in gods is a human propensity and that these gods are imaginary), the propensity for humans to believe "can easily be *accommodated* within a theistic perspective [emphasis added]" (McGrath 2008, 106). McGrath here is trying to anticipate and counter a potential argument used against the validity of theism, by suggesting that a theistic framework provides an alternative understanding of the same data. But he does *not* argue that a theistic interpretation is better, he merely posits that it can "accommodate" the same data. So while atheists might use evolutionary psychology to explain the human propensity to believe in supernatural agents, McGrath claims that data from evolutionary psychology and cognitive science can be interpreted theologically. My point is that no argument is offered for why the theistic framework *better* accounts for the observation that humans have a propensity to believe in supernatural agents; it is merely posited as an alternative.

McGrath does not develop what he means by "accommodate", but the question of whether cognitive science or religion (CSR) undermines the credibility of theistic beliefs is widely debated amongst philosophers, theologians and CSR researchers themselves. Another way to pose the question is: Are the findings of CSR compatible or reconcilable with certain religious beliefs? A possible way for Christians to reconcile their faith with CSR is provided by Leech and Visala:

> The theist can maintain with tradition internal consistency that, prior to the historical revelations, humans held religious beliefs that were false in much of their specific content but crucially true insofar as they mediated an inchoate representation of the God of classical theism. She could point out that this would be compatible with traditional theistic interpretations, such as a "cosmic covenant" understanding of prehistoric religion, or a patristically inspired Logos theology. (Leech and Visala 2011, 60)

My intention here is not to comment on this particular attempt at accommodation, it is simply to point out that something like this account is likely what McGrath has in mind when speaking about accommodation. In his view CSR, like nature, is indeterminate: it can be reconciled with theistic as well as non-theistic worldviews.

Another example where McGrath merely posits a theological understanding of some phenomena is when he deals with the apparent disorder of the universe and the existence of natural evil. McGrath suggests that the atheistic argument which invokes the apparent lack of design in the universe has some merit, but is only effective against a deistic conception of God where God abstains from the universe after creation (McGrath 2008, 198-201). The Christian approach, according to McGrath, can avoid this problem by appealing to the "Christian understanding of the 'economy of salvation'" (McGrath 2008, 201). If I understand McGrath correctly, he is suggesting that the Christian concept of the "fall" factors into both how nature has decayed from an original pristine state, as well as humanity's capacity to perceive the divine (McGrath 2008, 202-203). Here McGrath appeals to a variety of Christian figures who have suggested something along these lines including Irenaeus of Lyons, Augustine of Hippo, Anselm of Canterbury and John Calvin. So McGrath asks: "What if, as Anselm of Canterbury suggested, sin renders the human soul incapable of seeing the beauty of God, or discerning God's reality within the world?" (McGrath 2008, 203). The argument, it seems, is that sin has cognitive impacts on human beings. This helps explain (or explain away) the apparent disorderliness of the universe: it is not the case that there is chaos or ugliness, rather there is order and beauty, but our ability to perceive it has been weakened. McGrath concludes by suggesting that this account effectively nullifies the atheist's argument from lack of design in the universe: "The Christian concept of the "economy of salvation" helps account for the seemingly disordered, ugly, and evil

aspects of nature. It allows us to make sense of what is observed, by offering a framework that is able to *accommodate* the darker side of nature [emphasis added]" (McGrath 2008, 203).

In both of these examples, the first about humanity's propensity to believe in gods or the transcendent, the second about the apparent lack of design in the universe, McGrath posits a theological account. He does not dispute the existence of the respective phenomena, but he does dispute the naturalistic interpretation of those phenomena. Insofar as he himself merely posits an alternative framework of understanding for these phenomena, McGrath fails to justify why we should *prefer* his theological account over a naturalistic account, or even a different theological account. In particular, he completely drops any reference to qualities of what would make some explanations better than others, such as explanatory power or parsimony.

### 2.1.4 A critical assessment of McGrath's natural theology

McGrath's approach to the epistemological issues underlying contemporary discourse on science and theology is comprehensive, and I do not claim to have done justice to his system here. Nonetheless, I believe I have underscored some main themes in his work. These can be summarized as follows:

1. The methodological convergence between natural theology and the natural science. Both rely upon a similar methodology, specifically the use of abductive reasoning or inference to the best explanation.
2. Relatedly, McGrath affirms that the search for "proofs" for any particular worldview is misguided, and we should be thinking instead in terms of mounting a cumulative case for a framework of understanding.

3. The shared affirmation of a form of realism: both McGrath's natural theology and the natural sciences maintain that there is a truth that is universal in nature that we can work towards, even if it can only be partially grasped.

McGrath's work is made all the more robust because of his informed views in philosophy of science, which take seriously the problem of interpreting evidence as evidence *for* any particular theory or worldview.

The fundamental problem, however, is that McGrath fails to support *either* the claim that Christian theology offers the *best* explanation of the world (or any particular phenomena in the world, such as the human propensity to believe in supernatural agents) or the claim that Christian theology offers a *viable* explanation for the world or phenomena in the world. I have already argued for why I think McGrath fails to defend the claim that Christian theology can be considered the best explanation: it is because he simply posits theological interpretations of some phenomena. He makes no recourse to the epistemic criteria which he referenced when countering the postmodern challenge (McGrath 2008, 155). In his textbook on science and religion, McGrath invokes IBE as a key point of convergence between theological and scientific reasoning, but here too McGrath sidesteps the question of how theism can be said to be the best explanation of any phenomena (McGrath 2010, 51-58). After discussing Charles Peirce's formulation of abductive arguments (McGrath 2010, 52) and inference to the best explanation (McGrath 2010, 55-56), McGrath writes: "[T]here are important parallels – but not an identity – between religious and scientific notions of explanation. In particular, the notion of "inference to the best explanation," which is now widely regarded as the basic philosophy of the natural sciences, appears to have considerable importance for Christian apologetics" (McGrath 2010, 57). Despite the considerable importance of IBE for Christian apologetics, McGrath never

actually considers theistic explanations vis-à-vis a set of explanatory criteria. Later in this work, McGrath offers some arguments from natural phenomena, for example the ordering of nature and the beauty in nature, which represent "merely some of the ways in which Christian theologians have attempted to describe the manner in which God can be known, however fleetingly, through nature" (McGrath 2010, 115). My point here is not to comment on his arguments but to highlight that this form of argumentation is markedly different from arguing that theism is the best explanation by way of appeal to explanatory criteria.

What about the *viability* of Christian theism? McGrath never defines nor explains what he means by the term "viable" when he hedges his thesis: "Does belief in God – especially the God of the Christian faith – represent the best, or at the least a viable, explanation of what is known of the world?" (McGrath 2008, 234-235) It is unclear if "viable" here means something along the lines of "possible". Some of his subsequent statement suggest as much. For instance he suggests that it is "possible" to account for certain features of the universe by appealing to chance, but that these features of the universe can also be accounted for by appealing to the Christian understanding of God (McGrath 2008, 244). But perhaps by "viable" McGrath means something more than merely possible. Perhaps he means something along the lines of "defensible". The closest he comes to asserting the strength of his worldview is when he writes:

> The Christian tradition thus possesses two advantages over its alternatives:
>
> 1 It offers an explanation of the world which is internally coherent, and an explanation of the externally observable fact that related insights may be held, at least to some extent, outside the Christian tradition;

> 2 It holds that what may be known of God through the publicly accessible reality of nature, although in a fragmentary and potentially inconsistent manner, may be clarified and extended through the Christian revelation, which is specific to the Christian tradition. (McGrath 2008, 249)

Here McGrath characterizes his approach as "internally coherent" and based on publically-accessible evidence. He phrases these same points more succinctly when he writes that his approach "will be both internally coherent and grounded in reality" (McGrath 2008, 170). Perhaps these two features, internal coherency and grounding in reality, is what makes a framework viable.

But for Christian theism to be viable in a way that is supported by publically-accessible empirical evidence, it is not enough to merely assert that some observation can be interpreted in a way that is compatible with a Christian worldview. Recall that McGrath, in addressing the atheist objection of an apparent lack of design in the universe, poses the following question: "What if, as Anselm of Canterbury suggested, sin renders the human soul incapable of seeing the beauty of God, or discerning God's reality within the world?" (McGrath 2008, 203). But unless the claim that sin affects our ability to perceive the divine is independently argued for, this amounts to little more than an after-the-fact rationalization of the evidence. Philosopher of science Elliot Sober illustrates the problem with such an *ad hoc* appeal to auxiliary hypotheses with a hypothetical scenario in which we are to imagine ourselves as members on a jury:

> Jones is being tried for murder, but you are considering the possibility that Smith may have done the deed instead. Evidence is brought to bear: A size 12 shoe print was found in the mud outside the house where the murder was committed, as was cigar ash, and shells from

> a Colt .45 revolver. Do these pieces of evidence favor the hypothesis that Smith is the murderer or the hypothesis that Jones is? It is a big mistake to answer these questions by *inventing* assumptions. If you assume that Smith wears a size 12 shoe, smokes cigars, and owns a Colt .45 and that Jones wears a size 10 shoe, does not smoke, and does not own a gun, you can conclude that the evidence favors Smith over Jones. If you make the opposite assumptions, you can draw the opposite conclusion. Surely it would be wrong simply to commit to assumptions that help convict Smith or to assumptions that help acquit him, as is your whim. What is needed is *independently attested information* about Smith's and Jones's shoe sizes, smoking habits, and gun ownership. [Emphasis in the original] (Sober 2008, 145).

So unless independent evidence or supporting arguments are offered in favor of the claim that there is some phenomenon which we might call "sin" that is affecting the human capacity to perceive the divine, it amounts to little more than a contrived assumption. Of course *if* McGrath's premise is true and human cognition is affected by something called "sin", then it would follow that our ability to perceive God would be weakened. This is true but trivial. The question is: What justification do we have to adopt this premise? McGrath merely posits the existence of sin as a kind of *ad hoc* hypothesis to accommodate the evidence of apparent disorder in the universe. I will return to this issue of invoking auxiliary hypotheses in the third chapter.

In short, even if McGrath's version of Christian theism can be shown to be internally coherent and in some sense grounded in reality, the main problem of preferring it as an explanatory framework over and above alternative frameworks persists. So McGrath's *approach* to setting up a conversation between science and theology is commendable, as it underlines a potentially fruitful point of convergence between the philosophy of science and theology, namely

the common interest in the notion of inference to the best explanation (McGrath 2010, 57). But McGrath's actual *case* in favour of Christian theism is wanting.

### 2.2.0 Christopher Southgate's Theology of Nature

In this section I will discuss Southgate's book *God, Humanity and the Cosmos* (2005). This book features contributions from eleven scholars across a variety of disciplines. However I will be focusing on the sections in which Southgate is designated as the sole or primary author. Southgate, unlike McGrath, is not interested in natural theology but in what he calls *theology of nature*. Borrowing this distinction from science and religion scholar Ian Barbour, Southgate explains the difference between natural theology and theology of nature as follows:

> Natural theology is traditionally understood as the consideration of what can be known about God without the aid of revelation, i.e. from consideration of the created world in general, aided by reason. Whereas Barbour's theology of nature 'starts from a religious tradition based on religious experience and historical revelation. But it holds that some traditional doctrines need to be reformulated in the light of current science'. The framing of theology of nature is in fact what most of the contemporary writers in the science-and-religion field are engaged upon, and what this book will encourage its readers to also attempt. (Southgate and Poole, An Introduction to the debate between science and religion 2005, 6-7).

So Southgate's book begins with an unspecified number of religious or theological presuppositions which are "based on religious experience and historical revelation". Southgate identifies himself as well as all of the other contributors to the book as Christian (Southgate and Poole 2005, 18-19).

Despite the evangelizing tone of the first chapter, Southgate maintains that the aim of the work is to explore theology "with the network of models, metaphors and propositions which give a religion its rational framework" (Southgate and Poole 2005, 13). He also suggests that student readers of the book should attempt to create their own theological models, as well as "learn the skills of defending the rationality of their models" (Southgate and Poole 2005, 32). Rationality then is understood as playing a role in Southgate's theology. For Southgate, theology cannot be reduced to "merely a realist search for progressively truer data", but nonetheless it can be understood in parallel with science as "the activity of a community of motivated believers, holding core assumptions and testing out new possibilities" (Southgate and Poole 2005, 18).

A useful way to proceed in exploring the parallel between science and theology would be to ask: What are the objects to be explained by theology according to Southgate? In other words, what kinds of things does theology purport to offer an explanation for? I noted earlier McGrath's proposed list of phenomena for which Christian theism can allegedly provide an explanatory framework (2.1.0). Southgate, by contrast, offers no such list. But he does offer a kind of negative list, by maintaining that certain kinds of explanations belong to the domain of theology, but not science. In particular, Southgate argues that motive-based explanations which involve a person's agency are not scientific. In other words, teleological explanations or intentional explanations are not scientific explanations. Southgate maintains that the different kinds of explanations are compatible with each other, such that science can supply certain kinds of explanations without being incompatible with teleological explanations. He illustrates this via the following example:

> [A]n object such as a thermostat might have a number of compatible explanations.

> *An interpretive explanation:* A thermostat is a device for maintaining a constant temperature.
>
> *A descriptive explanation:* A (particular) thermostat consists of a bi-metallic strip in close proximity to an electrical contact.
>
> *A reason-giving (scientific) explanation*: Constant temperature is maintained because, when the temperature falls, the bi-metal strip bends, so making electrical contact. It switches on a heater which operates until, at a predetermined temperature, the bi-metal strip bends away from the contact, thereby breaking the circuit.
>
> *A reason-giving (motives) explanation:* An agent wished to be able to maintain enclosures at constant temperatures to enable people to work comfortably, ovens to cook evenly, and chickens to hatch successfully. (Southgate and Poole 2005, 31)

The claim being made here is that there is no inconsistency in offering different *kinds* of explanations for the same object or phenomenon. Southgate insists that science does not deal in explanations of the final kind listed above: "The success of science has been based on restricting itself to particular forms of non-teleological explanation" (Southgate and Poole, An Introduction to the debate between science and religion 2005, 31). The intent behind demarcating teleological explanations as outside the realm of science is clear: it is precisely in this category that theological explanations will have a space to be plugged in. This effectively immunizes theological explanations from scientific assessment since theological explanations are teleological explanations, and science is restricted to non-teleological forms of explanation. How then does Southgate mount a case for his own theological model? To answer this I turn to Southgate's claims on how God has intervened in history.

### 2.2.1 Southgate's account of divine action

Southgate's strongest theological claims are found in his chapter on divine action. To be clear, Southgate is not offering a theological model that is rooted in alleged revelation. Insofar as he attempts to square divine action with modern science, Southgate represents a trend among academic theologians who, unlike their fundamentalist counterparts who reject a substantial portion of scientific consensus, have adapted their views to be less in tension with current scientific views. Hence Southgate describes his chapter on divine action as follows: "In Chapter 10 we will consider how scientific accounts might accommodate the possibility of divine action within natural order" (Southgate 2005, 188). What I am interested in exploring is how Southgate claims to maintain the belief in divine action as a rational belief.

To begin, Southgate characterizes the goal of his chapter as addressing the questions of "How can God be considered to *act,* to *have acted*, and to be *going to act* in the course of the history of the cosmos [emphasis original] (Southgate 2005, 260). He states that divine action is not discernable by a "naturalistic analysis of the world", and that divine action "cannot simply be described in the same terms as human action" (Southgate 2005, 265). But this raises a problem: If talk of divine action has little resemblance to human action, how could such talk remain coherent, let alone rational? Southgate acknowledges that "most Christian formulations speak of God as in some sense personal and in some sense active in the world" (Southgate 2005, 267). But he maintains some reservations about applying analogies between human agency and divine agency:

> Our experience of personal agency is of two types:
>
> (a) We as mental beings influence our physical bodies
>
> (b) As mental-physical beings we act upon other beings and on the world around us.

> Human agency is a very imprecise basis for analogies to God's action. Nevertheless it seems to be the best basis we have. […] Discouragingly however, our understanding of human agency is very partial, as the following sections indicate. Of such a simple event as my lifting my arm, we can speak of sub-atomic, atomic and biochemical events, and of nerve-impulses passing from my brain to my arm. But at the interface between neurophysiological events and conscious thought/intention our scientific understanding is very preliminary. (Southgate 2005, 267)

I read Southgate here as making two distinct arguments. The first I think is weaker than the second. The first involves the suggestion that in order to make an analogy between human action and divine action, we need to have a complete understanding of human action. What is strange about this argument is that if we imagine an intentional explanation such as "John ran towards the bus stop because he wanted to catch the bus," there is nothing in this explanation that would require us to understand atomic theory. By Southgate's own earlier example involving the "motive explanations", we could explain the existence of a particular thermostat by appeal to some agent's desire to install it. Such an explanation would merit being called an explanation without further appeal to the biochemistry of the electrician. Thus *pace* Southgate, a complete understanding of the interface between consciousness and neurophysiology is not needed when discussing explanations involving agents. Even if human actions are reducible to biochemical phenomena, intentional explanations operate on an epiphenomenal level. I understood this to be the point of Southgate's earlier classification of the different kinds of explanations: the teleological (motive-based) explanations operate on their own plane. But if we accept this, it is odd that Southgate now ignores this mode of explication when it comes to human action. Why

not simply analogize human agency and divine agency, such that the analogy involves motive-based explanations?

The second argument, which is stronger, is that certain qualities such as our physical nature as humans prevents us from making assumptions about how God would act. For example, if I am thirsty I need to move to water in order to quench my thirst. I cannot merely satiate my thirst at will. Similarly, if I want to make a person enjoy my presence, I have to act upon that person; I cannot merely will this person to enjoy my presence. God is conceived in different terms: he can directly act upon all things without having to spatially move towards them. His will is affective: he can merely will things into being. So analogies between how humans might act in order to achieve a goal and how God might act are never going to be perfect. But this again brings us back to the question posed by Southgate: How can God be considered to act?

Southgate does not offer a definitive account of how to conceptualize divine action. As such, no system defending the rationality of belief in divine action is offered. What is offered in the subsequent pages is a classification of various theological views on how divine action can be conceptualized according to various contemporary theologians including Arthur Peacocke, Nancey Murphy and John Polkinghorne (Southgate 2005, 270-282). Among the possible accounts of divine action, Southgate references process theologians who "posit a sort of panexperientialism which allows all entities, however inanimate, to be aware of the divine will and to respond to it (or not)" (Southgate 2005, 280). While such a survey may prove useful for those interested in the history of theology, such views are difficult to take seriously from a non-theistic and empirical perspective, and the non-theist is left wondering where the rational grounding is for any of these possibilities. Southgate does not offer a robust defence of any one of these accounts, instead he is satisfied by asserting that "numerous possibilities" exist beside

the "trite materialist assertion that such action [divine action] is impossible" (Southgate 2005, 296). Although materialists are not discussed in his chapter on divine action, it is clear that Southgate here is referring to those whom he elsewhere referred to as advancing a "militantly atheistic programme", a camp which includes physicist Stephen Hawking and chemist Peter Atkins (Southgate and Poole 2005, 28).

In short, while Southgate suggested that his intention was to explore how God could be considered as active in the world, his chapter fails to argue for any one model in particular. Southgate suggests that a hybrid of different models may prove helpful: "Perhaps the most interesting ways forward come from those who want to combine elements from different camps [or different models of divine action]" (Southgate 2005, 281). Still, no position in particular is advanced. He concludes by writing: "Which possibility [or model of divine action] is adhered to will depend as much on the theological assumptions of the adherent as on the status of the science" (Southgate 2005, 296). But of course, by Southgate's own *theology of nature* framework, *whatever* the science is will be re-appropriated by the theologian. In practice this means that the theistic explanatory framework fails to provide any explanatory power at all. As the adage goes, an explanation that can explain everything explains nothing. If all possible observations can be made to fit within a theistic framework, then it is a poor framework indeed.

Consider a specific empirical example which Southgate seeks to accommodate within a theistic framework. Southgate raises the issue of apparent natural evil in the history of the earth: five great extinction events, the asteroid which led to the end of the dinosaurs, and so forth. For Southgate, pre-human natural history requires its own theodicy. How could a good God allow for the suffering of conscious creatures before any human even had the opportunity to sin? Southgate discusses the possible solution of theologian Arthur Peacocke, who suggests that for

God, the creaturely suffering in natural history was justified as a means of bringing about a greater good, specifically humankind (Southgate 2005, 287). Southgate offers no means by which to assess such an explanation, suggesting, as quoted above, that our preferred solutions will depend upon our own theological assumptions. It is difficult to see how this amounts to anything other than circular reasoning.[9] Southgate's argument seems to be that if one grants certain theological presuppositions, then certain observations can be accommodated within a theistic framework. But isn't the appeal to such presuppositions *ad hoc?* If we did not know what we today know about earth's natural history, would it flow naturally from a Christian theistic framework that unquantifiable suffering occurred within the animal kingdom before any humans even had the chance to sin? The answer to this seems to be "no", given that the subtext of Southgate's discussion on the matter seems to be that it is not self-evident why God would allow for such suffering in the first place. So if the contemporary scientifically-informed theologian must come up with ways of accommodating the empirical evidence to a theistic framework, the question is whether the appeal to *ad hoc* rationalizations is justified. I explore this in the next section

### 2.2.2 Critical assessment of Southgate's case

If theological thinking is understood to be a circular system that cannot be assessed from the outside, then my criticism would have no impact. But it is worth pointing out that some of the contributors to Southgate's book explicitly reject such a vision for theology. For instance, theologian Paul Murray in his chapter on truth and reason in science and theology writes: "Christian faith should never be allowed to justify the petrifying of theology into a self-enclosed

[9] This is particularly ironic given that Southgate dismisses David Hume's argument against miracles on the grounds that it is guilty of circular reasoning. See pp. 227-278.

discourse – a discourse which feels assured of its full and final adequacy, and which is immune from all challenge and criticism from without" (Murray 2005, 110).

Murray highlights some general objections to theology. These objections tend to be rooted in a worldview which recognizes the explanatory force of science:

- Science is useful, whereas theology promotes disengagement from reality;
- Science is open to falsification and renewal, whereas theology is dogmatically entrenched;
- Science is based upon empirical data, whereas theology is a matter of pure speculation. (Murray 2005, 82-83)

Murray makes a case against these claims by highlighting methodological parallels between philosophy of science and theology.

The most notable of these parallels is his discussion of theologian Nancey Murphy's appropriation of Imre Lakatos' concepts in philosophy of science (Murray 2005, 102-107). Lakatos conceived of scientific research programmes as having two qualities: first, they seek to explain available data and second they seek to guide future research. Lakatos recognized that potentially falsifying data can be rationalized within a framework by way of appeal to auxiliary hypotheses. Thus if falsification occurs, the "core" of a research programme can be maintained by appeal to an addendum explanation. A research programme was deemed "progressive" if these auxiliary hypotheses predicted "novel facts"; but if auxiliary hypotheses are added in a purely *ad hoc* manner, offering no new predictions, for the sole purpose of salvaging the "core" theory, then the research programme was deemed "degenerative" (Murray 2005, 103). This bears close resemblance to Sober's argument discussed above, which highlighted the problem of

merely helping ourselves to assumptions without seeking to independently confirm these assumptions (2.1.4). This is precisely why Southgate's attempt at squaring the suffering of creatures throughout natural history with Christian theism is unconvincing: it amounts to saying "Well maybe God had a good reason to allow it." Well, perhaps, but the theist needs to offer more than this in order to mount an explanation with explanatory power and empirical content. Let me reiterate the point made by Murray above: a theological project, if it is to have any bearing whatsoever beyond those who already believe, needs an intersubjective epistemology. By merely appealing to theological axioms and definitions (Southgate 2005, 265), Southgate's various proposed theological models remain in a cul-de-sac.

### 2.2.3 Conclusion

In this chapter I discussed the perspectives of two Christian theologians, McGrath and Southgate. My aim was to explore how these scholars view the relationship between theology and science, in particular with regards to epistemology. McGrath maintains that inference to the best explanation plays a vital role in the natural sciences and that it is increasingly playing a vital role in amongst theologians who seek to affirm the explanatory value of Christian theism. Southgate, in contrast to McGrath, is less interested in providing theism as an explanatory framework, instead advocating for what he calls *theology of nature*. In this scheme, theological views are presupposed, and nature is viewed through a theological lens. The strength of this interpretative or explanatory framework is not affirmed: Southgate does not assert that theism can better account for some phenomena than competing explanatory frameworks. The key difference between McGrath and Southgate, then, seems to be that McGrath recognizes the importance of comparatively assessing his theological worldview against other worldviews, while Southgate is content to merely posit his as one among many. Southgate still seeks to maintain that theology

can be rational, but offers no systematic defense of his own perspective. In the next part, I bring will bring the views of Dawes, McGrath and Southgate into conversation.

## Chapter Three: Dawes, McGrath and Southgate in "Conversation"

In this chapter I will put the perspectives of Gregory Dawes, Alister McGrath and Christopher Southgate into dialogue. The goal here is to explore points of agreement and disagreement between these scholars with regards to the epistemological issues surrounding methodological naturalism and theism. Resolving the points of disagreements and building upon the points of agreement are necessary steps which need to be taken in order to move beyond the methodological naturalist framework. In particular, putting these individuals into dialogue with one another may prove useful to religion scholars who are interested in epistemology because the individuals I am looking at are scholars in religion, in contrast with the contemporary wave of books written on the scientific status of religious beliefs which tend to be written by individuals specialized in the natural sciences. Examples of this latter category include *The God Delusion* (2006) by Richard Dawkins, *Faith Vs. Fact* (2015) by Jerry Coyne, *The Language of God* (2006) by Francis Collins and *Darwin's Doubt* (2013) by Stephen Meyer. Each of these authors is specialized in biology; the first and second are atheists while the third and fourth are theists. These works arguably present little value when it comes to informing theory and method in religious studies. The scholars I am focussing on, however, do merit being taken seriously by other scholars of religion. It is also worth highlighting that given that the dialogue I am creating is between theists (McGrath and Southgate) and a non-theist (Dawes), which underscores the fact that scholars of religion who are divided along theological lines can nonetheless come together to discuss epistemological issues.

In this chapter I identify two key topics which provide the grounds for dialogue. The first involves the problem of an individual scholar's background assumptions. Is it meaningful to

argue that inference to the best explanation or abductive reasoning can provide a framework in which theistic explanations are assessed if different scholars have different worldviews and thus different background assumptions? If different scholars come to different conclusions about theism when using IBE, doesn't that suggest that the framework is flawed?

The second topic involves a problem of scope. Which kinds of theistic claims can be weighed via abductive reasoning or inference to the best explanation? Some theistic explanations purport to explain an event in the past; others involve positing theism as an explanation for ongoing phenomena such as natural laws. Some theistic explanations seek to offer an additional layer of explanation for some phenomenon for which there already exists a naturalistic account, such as natural disasters. Is IBE, as a methodological tool, capable of assessing these problematic cases?

### 3.1 The problem of background assumptions

Background assumptions play a role in all forms of scholarship; therefore the problem is not unique to scholars who may wish to invoke IBE to assess theistic explanations. Historiography provides a helpful analogue. According to Mark Giderhus, a positivist epistemological framework would hold historians to the same standard as scientists: "Anyone carrying out the experiment in the same way and under the same conditions ought to arrive at the same findings and conclusions" (Gilderhus 1996, 88). The problem is that historians do not work in environments where they can engage in repeated testing, thus a somewhat overstated caricature of history as a discipline goes as follows: "If ten historians scrutinized the same bodies of evidence, they probably would arrive at ten different versions of meaning and significance" (Gilderhus 1996, 88). The problem, in short, is whether there is such a thing as an objectively

correct historical account. This relates to the issue of whether a historian can escape their own worldview, and counteract his or her pre-conceived assumptions.

Michael Licona in his *The Resurrection of Jesus* uses the metaphor of "horizons" to illustrate how different historians interpret evidence in different ways. In this context "horizons" refer to the background assumptions of scholars:

> For better and for worse, historians are influenced by their culture, race, nationality, gender and ethics; their political, philosophical and religious convictions; their life experiences, the academic institutions they attended and the particular community of scholars from which they covet respect and acceptance. They cannot look at the data devoid of biases, hopes or inclinations. No historian is exempt. Horizons are of great interest to historians since they are responsible more than anything else for the embarrassing diversity among the conflicting portraits of the past. How can so many historians with access to the same data arrive at so many different conclusions? Horizons. (Licona 2010, 38)

Gilderhus and Licona are discussing epistemology in the realm of historiography, but the issues they highlight are important for any philosopher or scholar who wishes to invoke inference to the best explanation.

If IBE is to prove its utility as an epistemological tool, it may be construed as problematic if ten different scholars who employ IBE arrive at ten different conclusions. If variant background assumptions account for scholarly discord, then this raises the question of whether one's background assumptions or horizons could ever be transcended. McGrath, Dawes and Southgate recognize and acknowledge the problem of background assumptions. The difference, as I will show, is that McGrath and Dawes are more confident that the problem can at least be

partially redressed. On the other hand, Southgate is less confident that one can transcend one's individual horizons.

McGrath's solution involves tempering our aspirations towards a pure and pristine claim to objectivity (McGrath, Science and Religion: A New Introduction 2010, 168) . Nature does not imprint its reality upon us, rather we have interpretative frameworks through which we perceive nature. As such, McGrath writes: "None of the multiplicity of interpretative frameworks that are brought to bear upon nature can be regarded as being authorized or legitimated by nature itself. There is no universal metacriterion which determines which of these multiple readings is to be preferred" (McGrath 2008, 169).

For McGrath, however, abandoning the notion of objectivity does not entail falling into epistemological relativism. For instance, he maintains that a robust natural theology can be founded by appeal to inference to the best explanation, which ideally would involve a natural theology that is both grounded in reality as well as being internally coherent. Hence he writes:

> While it seems inevitable that the quest for any universal, self-evidently "right" or "objective" interpretation of nature will have to be recognized as unsustainable in the light of the problematic history of the enterprise, this merely points to the need to consider tradition-mediated rationalities instead. In other words, a specific interpretation of nature is adopted, which is believed to be (but cannot be proved to be) the best account possible in terms of criteria of explanatory excellence – such as the degree of empirical fit, conceptual elegance, and fecundity. Such an approach will be both internally coherent and grounded in reality, recognizing that it represents a tradition, while claiming that this tradition offers the

> best explanation of what may be observed in nature, culture, and human experience – including the existence of rival traditions. (McGrath 2008, 170).

But does this adequately address the problem of background assumptions? Specifically, if two scholars both look at a set of evidence and conclude via IBE two different conclusions, doesn't that undermine the vitality of IBE as a theoretical tool? The two scholars may not even agree on which epistemic criteria to use (McGrath 2008, 235). Even if the criteria are agreed upon, the scholars may weigh the importance of any given criterion more than another. Recognizing these problems, McGrath maintains that IBE can nonetheless provide a fruitful theoretical framework:

> There will always be at least a degree of uncertainty attending any assertion that a given explanation is indeed the best. Yet this does not prevent such discussion taking place, either in relation to the epistemic virtues themselves, or the outcome of their application. (McGrath 2008, 236)

So for McGrath, the lack of complete unanimity among scholars for any given question does not in itself mean that an appeal to explanatory criteria is a fruitless method. Like McGrath, Dawes recognizes that the criteria by which candidate explanations are to be weighed are contested. The scholar must therefore make a selection: "Since there exists no definite or exhaustive list of explanatory virtues, we are forced to choose which we shall adopt" (Dawes 2009, 116).

To reiterate: the question at hand is whether IBE can be accepted as a useful theoretical framework if different scholars who utilize IBE in order to assess an explanation come to different conclusions. Dawes indirectly addresses this issue when he distinguishes between two uses of the term "unfalsifiability" (Dawes 2009, 15). Sometimes, according to Dawes, philosophers speak of an unfalsifiable claim: a claim which is formulated in such a way that no

possible observation could negate it. On the other hand, sometimes what is actually occurring is that the *proponents* of a claim resort repeatedly to *ad hoc* rationalizations of disconfirmatory evidence. In this scenario, it is not the *claim* that is unfalsifiable; it is the *proponents of the claim* who are strongly wedded to their claim. Thus Dawes differentiates between the falsifiable nature of particular claims and the propensity of people to hold fast to these claims despite countervailing evidence: "It may be the case that many religious believers are guilty of this failure: they refuse to admit that there are facts that demonstrate their beliefs to be false. But that does not mean their beliefs are unfalsifiable in the strict sense" (Dawes 2009, 15).

In short, it could actually be the case that when two scholars look at the evidence and arrive at different conclusions, one scholar may simply be much more engaged in motivated reasoning than the other. In this scenario, we can see that the mere fact that there is disagreement does not in itself suggest that IBE has no utility. Gilderhus makes a similar argument when discussing Holocaust deniers: the mere fact that they exist does not discount the historical evidence that the Holocaust occurred. Gilderhus describes "pseudoscholars" who have formed their own journal, intended to give the impression that their views are scholarly (Gilderhus 1996, 90-91). The point here is that the mere existence of dissenters does not deter from the existence of more legitimate historiography. In other words, that different people have different readings of history does not mean that all readings have an equal claim to accuracy.

Thus with regards to the issue of whether IBE could constitute a legitimate form of methodology, I think it is fair to conclude that McGrath and Dawes are in broad agreement. The background assumptions or horizons of the scholar invoking IBE have a role to play, but that does not in itself invalidate the method. I would argue that we find a strong parallel to IBE within the realm of textual criticism insofar as both employ the use criteria. Textual critics from

the nineteenth century onwards, such as Tischendorf, Westcott and Hort have attempted to lay out a set of criteria whereby different readings can be assessed, in order to determine which of the textual variants are the earliest (Epp 2000, 155). These criteria, however, in practice amount to *guidelines* rather than rigorous arithmetic-like *formulae*. For example, Eldon Epp writes that while Tischendorf's approach tended to favour the readings found in most of the earliest manuscripts, this general rule (the criterion of multiple attestation) could be outweighed by other criteria, such as internal consistency. So if a textual variant appeared in a minority number of manuscripts, but seemed to fit better with the overall text based on internal consistency, the minority reading would be preferred. In the end the scholar must engage in a "balance of probabilities" (Epp 2000, 156). This view is echoed by the cardiologist Claudio Rapezzi, who argues that abductive reasoning is an important facet of clinical work, referring to the "science and art of clinical reasoning" (Rapezzi, Ferrari and Branzi 2005, 1491).

Like McGrath and Dawes, Southgate recognizes that the presuppositions an individual begins with affect the conclusions they draw (Southgate 2005, 297). For Southgate, this principle holds true within both science and theology. Within the scientific domain, Southgate affirms the critical realist view on the grounds that naïve realism denies this principle:

> We dismiss the position known as naïve realism, which simply holds that every scientific discovery directly corresponds to a truth about the world […] The critical realist recognizes that we hold our views of reality provisionally, that we cannot simply read off the nature of the world from scientific data. The theories and presuppositions with which we approach our world are acknowledged to affect our selection of what data we count as important to collect, as well as the ways in which we interpret these data. (Southgate and Poole 2005, 15).

In short, Southgate believes that all data is theory-laden. But does this entail epistemological relativism? He seems to offer two different answers, one for science and one for theology. Southgate endorses the appeal to using explanatory criteria in order to assess competing theories within the domain of science (Southgate and Poole 2005, 15). However he does not endorse the appeal to explanatory criteria in order to assess theological claims, he merely notes that different theologians and philosophers have different views on whether IBE can apply to theistic claims (Southgate and Poole 2005, 16-17). In his chapter on divine action, he does not invoke the use of explanatory criteria to endorse a particular theory on divine causality. It is I think therefore safe to conclude that Southgate is not confident in the view which says that theistic explanations can be assessed by appeal to IBE. Put differently, IBE in this view does not allow scholars to overcome their background assumptions. This view is pessimistic with regards to the possibility of creating an intersubjective epistemology which allows for competing theistic explanations to be assessed. Southgate is more interested in providing theological glosses or theological appropriations of contemporary scientific findings, rather than formulating an empirically-supported theistic framework.

So in regards to the problem of background assumptions, then, the difference between McGrath, Dawes and Southgate is that McGrath and Dawes think that an appeal to inference to the best explanation can provide a potential way out of our individual cognitive cul-de-sacs. If we have no way to escape our own cognitive worldview, then all we could ever do, in principle, is continuously interpret data in support of our cognitive biases. We would be unable to transcend our own horizons. The picture that is painted by all three scholars is one of recognition that the world "out there" does not imprint itself upon us, but rather that we actively filter the information that we receive. But McGrath and Dawes depart from Southgate in that the former

two scholars believe that IBE represents a theoretical framework which helps us check our biases and correct our background assumptions. Thus McGrath and Dawes maintain that there is in fact potential for assessing theistic explanations in an intersubjective manner via IBE. Southgate thinks that IBE has utility within the realm of science, but not within the realm of theology. The question I explore next is: If theistic explanations can be assessed by way of appeal to IBE, what are the limitations?

### 3.2 The problem of scope

If one grants the barebones possibility that some headway can be made towards assessing some theistic explanations via IBE, exactly how far can such a methodology bring us in actual practice? Are some theistic explanations more easily assessable via IBE than others? Which sorts of theistic explanations are open to assessment?

Let me begin with an argument made by the American theologian John Haught which neatly captures an argumentative strategy deployed both by McGrath and Southgate. The argument involves what Haught refers to as "layers" of explanation. His example goes as follows:

> Suppose that a wood fire is burning in your backyard. Your neighbor comes over and asks you to explain why the fire is burning. A very good response would be: it is burning because the carbon in the wood is combining with oxygen to make carbon dioxide. This is an acceptable explanation, and for a certain kind of inquiry it is enough. Still, there can be other levels of explanation. For example, you might just as easily have answered your neighbor's question by saying: the fire is burning because I lit a match to it. And a third answer might be: "The fire is burning because I want to roast marshmallows." Different levels of explanation, as is evident here, can coexist without conflict (Haught 2006, 16).

Much can be said about Haught's argument here, but I want to focus on a particular aspect: the observation that theistic explanations can be offered to explain phenomena which are accounted for by naturalistic hypotheses. This is in contrast with "God of the gap" arguments, where a theistic explanation is intended to fill a void within an incomplete scientific framework. Favouring "layered" explanations over "God of the gaps" arguments seems to be the rule rather than the exception among contemporary Christian theologians and philosophers. This is observable insofar as both McGrath and Southgate reject what they call "God of the gaps" arguments.

McGrath writes that proposing a "God of the gaps" is theologically unhelpful because of its potential liability to being "squeezed" by the advance of science: "Such an approach, however, is intensely vulnerable, mainly because the inexorable advance of the scientific enterprise means that gaps tend to get filled" (McGrath 2008, 238). Southgate makes a similar point, writing that God became "progressively edged out" within Western thought (Southgate 2005, 261). Insofar as the history of science and theology go, Dawes is in agreement with McGrath and Southgate. A key difference here is that Dawes views this history as evidence of the failure of theism as an explanatory framework: "religious explanations represent a failed research tradition" (Dawes 2009, 11). By contrast, McGrath and Southgate both seek to reformulate the project of theology, or more specifically natural theology.

For example, McGrath argues that scholars interested in theistic explanations might focus their attention not on areas where science currently lacks understanding, but on areas which are "beyond" science altogether. The former approach encompasses questions for which we currently have no scientific understanding, whereas the latter encompasses questions which in

principle cannot be answered by appeal to science or human rationality. McGrath thinks theistic explanations can account for questions in this latter category:

> Rather than suggesting that God offers an explanation of what the natural sciences are currently unable to explain, more recent theistic writers have stressed the importance of belief in God in explaining the "big picture" – that is to say, the overall patterns of ordering which are discerned within the universe. The British philosopher of religion Richard Swinburne insists that the explanatory aspects of theism are not limited to the fine details of reality, but extend far beyond these to embrace the great questions of life – those things that are either "too big" or "too odd" for science to explain (McGrath 2008, 240).

Similarly, Southgate discusses various "strategies" theologians have adopted to deal with the advance of science. In particular, he seems excited by an approach taken by some theologians. "Recent theologians," Southgate writes, "have regarded the system of causation that physics offers as open, containing inherent gaps which allow God to act "through" the system, to effect particular actions within the system of natural causes without being subject to the risk that science will close the gaps" (Southgate 2005, 262).[10] While it may seem like this approach is reaffirming a God of the gaps argument, the point being made here is that certain "gaps" are "inherent" to nature, and God acts through these gaps. In this context "gaps" refers to "indeterminacy at the quantum level" (Southgate 2005, 274). Simplifying this, the worry seems to be that if the scientific endeavour to understanding nature is approaching or at least aiming for a total, complete and comprehensive account. Whereas in the past theologians might have banked on certain gaps which were later filled, these gaps (resulting from quantum

[10] Southgate here does not provide specific theologians, but it can be discerned that he is referring to the claims made by Lawrence Osborne, Nancey Murphy, Robert Russell, Thomas Tracy and George Ellis (Southgate, A Test Case: Divine Action 2005, 264, 274)

indeterminacy) are qualitatively different. These gaps cannot *in principle* be surpassed. The indeterminacy is built into the system, or so it is claimed. The American biologist and theistic evolutionist Ken Miller argued along similar lines: "No matter how hard we probe, the peculiar quantum nature of reality does not allow us to predict the behavior of even a single electron with certainty. And this uncertainty, which theory suggests we can never overcome, prevents science from ever attaining a complete understanding of nature" (Miller 1999, 219).

The point I am trying to make is that both McGrath and Southgate offer explanatory frameworks which are not meant to be understood as being in competition with contemporary scientific findings. Rather, they add a theological and teleological layer to the existing scientific (naturalist) explanations. Southgate, for example, does not object to claim that the universe had a temporal origin, but he does object to Hawking's suggestion that God had no role in it (Southgate and Poole 2005, 28, 30).

Haught's argument about layered explanation closely parallels Southgate's classification of different kinds of explanation. Recall that Southgate argued that motive-based explanations can coexist with scientific explanations. The problem, however, is that both Haught and Southgate offer a loaded argument: Haught creates a story where an agent wants to roast marshmallows while Southgate creates a story where a thermostat is installed because someone wanted to monitor an area's temperature. Both of these stories feature agents. Insofar as they feature agents, the use of intentional explanations is uncontroversial. The controversy resides in the fact that theists believe that theistic explanations (which are intentional in nature) are the kind of explanations we need for things such as waterfalls, stars and laws of nature. If one explains a waterfall by appeal to physics and geological causes, why should we think that there is another layer of explanation at all? The claim being made is that naturalistic explanations do not

*necessarily* negate intentional explanations. In practice, if explanations can be layered, where do we find the theistic explanations layered on top of natural explanations? Can we use inference to the best explanation to assess these additional layers?

Let me briefly reiterate the key issue of this section. If IBE is to prove useful in assessing theistic explanations, it has to be able to actually process them. A well-known legal adage states: "Hard cases make bad law." Nonetheless in order to explore the limitations of IBE as a tool to assess theistic explanations, hard cases must be explored. A good place to start is Dawes' claim that the *explananda* of theistic explanations are of two sorts; they attempt to explain two different kinds of facts: events and states of affairs (Dawes 2009, 59). I will explore both of these in turn.

An example of an event would be a natural disaster. An example of a state of affairs would be the existence of the universe itself. Dawes claims that more educated theists refrain from positing theism as an explanation for a particular event: "As a general rule, theistic philosophers favour theistic explanations of states of affairs over explanations of particular events. To sophisticated believers, the latter can appear a little naïve" (Dawes 2009, 60). Nonetheless, it is not difficult to find theists who offer theistic explanations for particular events: "Shortly after the Indian Ocean tsunami of December 26, 2004, the chief Sephardic rabbi of Israel 'explained' the catastrophe by attributing it to God's anger at our neglect of his commandments" (Dawes 2009, 60).[11] Dawes highlights that the rabbi is careful to avoid making a generalized causal claim: he does not say that neglecting God's commandments will entail

[11] Dawes' citation for the claim made by Shlomo Amar, the chief Sephardic rabbi of Israel at the time, is an online news article dated January 2, 2005 entitled "Israel's Top Rabbi: 'G-d is Angry'; Tidal Waves Kill 3 Israelis". The URL is: http://www.israelnationalnews.com/News/News.aspx/74503. The Washington Post corroborates this article in a piece dated January 8, 2005 entitled Divining a Reason for Devastation. The URL is: http://www.washingtonpost.com/wp-dyn/articles/A57758-2005Jan7.html.

natural catastrophes. So Dawes interprets the rabbi as attempting to explain the occurrence of this *particular* tsunami, not tsunamis in general (Dawes 2009, 61). Put differently, the theistic explanation is unique or singular in nature, not because it appeals to God, but because it avoids making a law-like generality about tsunamis.

But this example raises a problem: how can such an explanation, singular in nature as opposed to general, be tested? For Dawes, the testability of a theory is an explanatory virtue (Dawes 2009, 117-118). Dawes defines testability in the following way: "A hypothesis is independently testable if we can use it to make predictions about facts other than those it purports to explain" (Dawes 2009, 117). By "tested" Dawes does not mean "replicate," rather he means corroboration or falsification: "The hypothesis must, in other words, have some degree of empirical content: there needs to be at least one possible state of affairs that it excludes" (Dawes 2009, 118).

So how does the proposed theistic explanation of the rabbi for the 2004 tsunami fit within Dawes' system? Dawes acknowledges that theistic explanations which purport to explain singular events are not replicable, but he maintains that they are testable in the sense that they could be formulated in such a way so that they may be corroborated or falsified (Dawes 2009, 63, 118). This can be done in two ways. The first involves translating theistic claims into intentional explanations. The second involves taking a liberty in generalizing unique events into broader patterns. I shall address both briefly.

Recall that for Dawes, theistic explanations are a species of intentional explanations (Dawes 2009, 39). This is why he claims: "What the theist needs, and what she must seek to corroborate, is a hypothesis of the form "there is a God who wills G," where G is a posited

divine goal" (Dawes 2009, 117). So it would be a mistake to formulate the rabbi's argument as follows:

1. God willed a tsunami to occur in the Indian Ocean in 2004.
2. Whatever God wills comes to pass.
3. Therefore a tsunami occurred in the Indian Ocean in 2004.

According to Dawes, this is an unfruitful way of formulating theistic explanations (Dawes 2009, 30). For a theistic explanation to possess empirical content or explanatory power, it must be formulated in terms of an intentional explanation. As discussed in chapter one (1.3), Dawes' schema for intentional explanations is as follows:

1. There exists a rational agent A with intended goal G.
2. A has beliefs B1, B2,… Bn relating to the attainment of G.
3. If B1, B2,… Bn were true, E [an action] would be the best way of achieving G.
4. Rational agents always choose the best way of achieving their goals.
5. Therefore A will do E (Dawes 2009, 155).

This formulation gives the explanation empirical content, because it gives us some basis to expect some events and not others. The first step for the rabbi would be to spell out just what the intent was behind the tsunami. If the intent was something like: "God wanted to let people know that they are neglecting his commandments," then it is difficult to see why a tsunami was selected for as a means of achieving this goal. Framed in this way, the rabbi's claim suffers from what Dawes refers to as the "suboptimality problem" discussed in chapter one (1.3). Dawes characterizes the suboptimality problem as follows: "The key question is: Given the posited

divine goal, is the *explanandum* the best way in which this goal could be realized*?* If not, then we cannot plausibly attribute it to God" (Dawes 2009, 85).

The second way in which the rabbi's example could be considered testable depends upon whether we allow for generalizations to be made from particular events. For Dawes, intentional agents are not governed by law-like regularities, but general regularities can still be established. The analogue being invoked here is human agency. We may not be able to predict with certainty what a person will do given certain conditions, but this does not prevent us from making some informed generalizations: "[…] agents having a similar character, in similar situations, with similar beliefs and desires will act in similar ways […]" (Dawes 2009, 161). If we accept this view, it follows that intentional explanations are testable even if they are not law-like:

> Does the lawlessness of intentional explanations mean that such explanations are not independently testable? No, it does not. If I have certain beliefs and desires, then – assuming I am a rational agent – this will have predictable consequences. Since those consequences extend beyond the fact to be explained, an intentional explanation will be independently testable (Dawes 2009, 164).

As an illustration, Dawes asks us to imagine being in a meeting with a colleague named Sally. Sitting in this room, we feel that the air is stuffy. We observe Sally stand up, and move around. How might we explain this? If we infer from the situation that Sally intends to get fresh air, we might posit as an explanation the following: "If sally intends to get fresh air, then – all things being equal – she will open the window" (Dawes 2009, 165). If she does, our explanation has been corroborated. If she doesn't, we may amend our explanations as follows: "Sally is moving around the room because she intends to get fresh air. She is not opening the window because she

believes this would let in the street noise and does not want to disturb her colleagues' discussion" (Dawes 2009, 165). Here, we have added what Lakatos referred to as an "auxiliary hypothesis" which functions as a saving grace for our original explanation (Murray 2005, 103). Both Dawes and Lakatos would argue that it is problematic to adopt an auxiliary hypothesis in a purely *ad hoc* manner in order to avoid disconfirmation. Rather, the point is that this new auxiliary hypothesis needs to be itself corroborated, as discussed in chapter two (2.1.4). The broader point, however, is that any intentional explanation involving Sally's actions would posit beliefs and desires, and these could be generalized to situations outside this specific context. Hence if Sally opened the window, we might expect her to act similarly in similar situations. This is what Dawes means when he argues that once we hypothesize about an agent's beliefs and desires for a given action, the consequences will extend beyond explaining that one action.

What Dawes is getting at here is that any proposed theistic explanation, even one which purports to explain an event which is singular in nature, will still be testable *so long as the intention of the agent is specified*. If the intention is not specified, then the claim amounts to a flat "God did it" assertion. Again, much depends upon the specifics of the theistic explanation on offer. Theologians from different religious traditions may give the divine agent a variety of different attributes and each case would require that we modify Dawes' schema. Still, it would make little sense to expect optimal action from a deity which lacked omniscience.

Southgate provides a theistic account of the Indian Ocean tsunami of 2004 as well. This provides an opportunity to compare Dawes' approach to that of Southgate. Southgate's approach to this event is primarily concerned with offering a theodicy:

> Periodic destruction of human value by the natural order is a necessary corollary of God's allowing that order to be itself and to develop and change. Intellectually, that seems the most coherent response to the terrible destruction inflicted by the Indian Ocean tsunami of December 2004. The movements and collisions of continental plates have had a vast influence on the evolution of life-forms on the Earth; they have helped to shape the fascinatingly diverse biosphere within which we live. Occasionally they result in huge destruction. God, who gave rise to these processes, respects their operation for the sake of the character of the creation as a whole (Southgate 2005, 265-266).

Southgate here is attempting to explain not the occurrence of the tsunami *per se,* but the *state of affairs* which gives rise to natural disasters in the first place. To borrow Dawes' categories mentioned earlier in this chapter, the chief Sephardic rabbi of Israel was trying to explain an *event*, while Southgate is trying to explain a *state of affairs*. Can IBE be used to assess this kind of theistic explanation?

While it should be stressed that Southgate is not claiming to offer this argument in the form of an inference to the best explanation, he nonetheless affirms theological realism and maintains that it is important to find what he refers to as "consonances" between science and theology in order to form a coherent worldview (Southgate and Poole 2005, 19). Hence it is still worth exploring how Southgate's claims would fit or not fit within Dawes' framework. First, recall that Southgate asks his readers to consider adopting a perspective he calls "theology of nature" as opposed to "natural theology" (Southgate and Poole 2005, 6-7). As described in chapter 2, natural theology here refers to the endeavour of discovering truths about God without appeal to revelation, relying instead on human reason. Theology of nature by contrast begins with a religious perspective and seeks to interpret the world via a theological lens. Is this the

equivalent of loading the dice from the start? Not necessarily. One may adopt, provisionally, a perspective or a lens in order to see whether it "makes sense" (to borrow McGrath's jargon) of something in the observed world (McGrath 2008, 233). According to Dawes, we are justified even in provisionally accepting that God has certain intentions, to see what would follow (Dawes 2009, 84). So adopting assumptions for the sake of argument is perfectly legitimate.

There are two ways in which Dawes might respond to Southgate's use of a "theology of nature". The first is to ask whether Southgate's account is explanatorily redundant: "If we already have a natural explanation of the fact in question, which no one is contesting, why offer a theistic one?" (Dawes 2009, 69) It could be that the theistic account adds something to our explanation, but for this to occur it must have empirical content. It must specify which phenomena we would expect and which we would not expect, assuming the truth of the explanation. Perhaps, however, Southgate is simply not interested in offering an explanation which is testable or falsifiable. The problem with adopting this stance is that it allows the atheist to come up with a more plausible alternative, one that is more *consonant* (to use Southgate's jargon) with observation. For instance, Dawes invokes the "hypothesis of indifference", an argument made by philosopher Paul Draper: "Neither the nature nor the condition of sentient beings on earth is the result of benevolent or malevolent actions performed by non-human persons" (Dawes 2009, 124). The question then becomes: Which explanation is most consonant with the observations? Under the hypothesis of indifference, a tsunami killing people does not constitute a surprising datum which needs to be accounted for. Under Southgate's theism, as I discuss below, the 2004 Indian Ocean tsunami represents a problem which needs reconciliation, or more specifically a theodicy.

In order to address the problem of suffering posed by the tsunami, Southgate helps himself to a number of auxiliary hypotheses. He writes that his above account of the tsunami is an insufficient account of why God would allow such human suffering, and that "further strategies" are required to make sense of such events. One of these strategies involves positing an afterlife: "Too many humans suffer intolerably without themselves having any opportunity to express their own free will. Theodicists therefore conclude that God must offer the victims of suffering consolations beyond this life, as part of God's promise that in the end time every tear will be wiped away" (Southgate 2005, 266). As discussed above, adopting auxiliary hypotheses in order to salvage a theory is not illegitimate in itself. It does, however, place a burden on the one who is offering the auxiliary hypothesis to corroborate it. Southgate is not interested in carrying this burden. In this instance, Dawes might argue that Southgate is helping himself to unsupported assumptions in order to salvage his account. In Lakatos' jargon, Southgate's account is degenerative: auxiliary hypotheses are added in an *ad hoc* fashion to avoid or rationalize disconfirmatory data (Murray 2005, 103). To recall an earlier distinction made by Dawes, is it the *claim* being offered that is unfalsifiable or is the *advocate* of the claim simply unwilling to accept disconfirmation? Translating this into Southgate's terminology, even if one provisionally decides adopt a "theology of nature" lens, are there any phenomena or observations which would justify a removal of the lens? If the answer to this is no, then Southgate's approach is degenerative because it involves perpetually reinterpreting any and all possible observations with one's theological beliefs.

It is worth underlining at this point, that even though Southgate refrains from invoking IBE or offering theism a scientific account of observation, the very fact that he seeks to reconcile and harmonize observations with a theistic worldview suggests that theism as such and theistic

explanations in particular constitute a kind of scientific claim insofar as discursive reasoning is applied to empirical observations. Otherwise, it would not make sense to speak of observations that need to be *reconciled* within a theological worldview. It would not make sense otherwise to speak of data that is at least seemingly in tension with theism. This lends indirect support to my thesis that theistic explanations can potentially be empirically assessed, depending on how they are formulated.

Returning to Dawes' dichotomy between theistic explanations which purport to explain facts and those that purport to explain states of affairs, it is rather evident which of these two McGrath is more interested in. Recall his list of phenomena which theism attempts to explain:

1. The apparent ordering of the universe, which is accessible and intelligible to the human mind;
2. A fruitful cosmic history, including the suggestion that it is "fine-tuned";
3. The interconnectedness of the universe, which resists reduction to its individual parts;
4. The coexistence of disorder and order within the world;
5. A generalized human awareness of the transcendent. (McGrath 2008, 237)

All of these constitute states of affairs and not events. In McGrath's terms, these are "big picture" issues (McGrath 2008, 238). Point two above in particular, relates to the notion of design in the universe, which will be discussed in the next section. For now, I will focus on point five above. Using Dawes' categories, point five is referring to a state of affairs. How might Dawes critique McGrath's claim here?

To answer this, I must first unpack McGrath's argument. Broadly speaking, the suggestion being made is that Christian theism accounts for the "generalized human awareness

of the transcendent". More specifically, the claim being made is that Christian theism can account for the differing religious traditions across cultures: "In every respect, the Christian vision of reality affirms that echoes, hints, rumors, and anticipations of the gospel will be found outside the domain of the church" (McGrath 2008, 250). So according to Christian theism, we should expect that different religious traditions across time and space contain "hints" of the Christian gospel, as if God is transmitting a message via radio but all of the other religious traditions were tuned in at the wrong frequency, hearing only parts of the full message. To develop this, McGrath quotes a paper by British novelist C.S. Lewis in which he claims that although Christians and Jews have received a "special illumination" from God, we should expect to find traces or glimpses of divine light in other cultures. McGrath summarizes Lewis' point as follows: "Lewis's argument is that Christianity offers a grand narrative which makes sense of all things, and which gives rise to subnarratives that are incomplete, occasionally distorted, refractions of its greater whole" (McGrath 2008, 250). It is by no means obvious to what extent such an account "makes sense" of other cultures and their religious beliefs: it is a totalizing perspective which allows for both similarities and dissimilarities between cultures to be accounted for. The argument therefore lacks empirical content.

But putting this aside, the key question Dawes might ask is this: What is the posited intention of the divine? If the answer to this is something like: "God wants to make all humans aware of his presence," then we have a suboptimality problem. If God wanted to make humans aware of his presence, why would some cultures be more aware of his presence than others, or more informed of his specific Christian nature than others? To be fair, McGrath is not conceiving of theistic explanations in the same way that Dawes is – he does not think of formulating them in terms of intentional explanations – but this does not shield his account from this objection.

Dawes' objection would only be negated if McGrath's concept of the divine was an impersonal force, but McGrath's conception of God involves positing God as an agent with intentions (McGrath 2008, 75). So long as God is conceived of as a personal agent, explanations involving divine action cannot be formulated in terms of impersonal laws.

In this section, I have sought to explore some of the more problematic cases for those who affirm that IBE can be used to assess theistic explanations. Two main kinds of cases were explored: first, those instances where a theistic explanation is offered for an event singular in nature and second, those instances where a theistic explanation is offered to explain a state of affairs. These more problematic cases can be contrasted with instances where a theistic explanation is offered such that the explanation can be corroborated through repeated tests, such as petitionary prayer (Dawes 2009, 63). What I have argued is that theistic explanations are not immune to assessment once we deploy explanatory criteria. This holds true even for theoretically problematic cases where theistic explanations which purport to explain events which are singular in nature (e.g. the specific tsunami in the Indian Ocean in 2004 – not tsunamis in general). Depending on how theistic explanations are formulated, they may be explanatorily redundant, in which case the explanation scores low against the criteria of simplicity. Some may lack empirical content, and thus score low on the criteria of testability. The crucial point however, is that they can be assessed; that is to say we can work through their merits as explanations, in the same way that we can work through the merits of naturalistic explanations. Thus if theistic explanations lack widespread acceptance among professionals in various fields it is not clear that this, as the methodological naturalists maintain, is because they cannot be assessed. It is, I argue, precisely the opposite. It is because they *can* be assessed, but fail as explanations.

## 3.3 Conclusion

In this chapter I brought the perspectives of McGrath, Dawes and Southgate into conversation with one-another. I considered the theological approaches offered by McGrath and Southgate, as well as the more skeptical approach of Dawes. McGrath and Southgate begin from a set of theological premises, upon which they lean heavily when offering explanations. The point of my thesis is not to dismiss these explanations simply because they are theological in nature. Rather, the point is to consider them in the same way one might consider naturalistic alternatives. This means having adopting an epistemological framework which can accommodate both theistic and naturalistic explanations. This framework, for the purposes of this thesis, is provided by Dawes.

What I have shown in 3.2 is that even in the problematic cases where a theistic explanation is offered in order to explain a singular event or a state of affairs, Dawes' methodology allows for these proposed explanations to be assessed. Earlier in this chapter, in 3.1, I showed that McGrath and Dawes both think that IBE and the appeal to explanatory criteria are important tools in contemporary epistemology. For McGrath, IBE is an important step away from positivist thinking, while avoiding epistemological relativism. For Dawes, abductive reasoning provides a powerful means by which theistic explanations can be empirically assessed. By contrast, Southgate is much less confident in asserting that theism can be established via IBE. A key requirement for Southgate's project is that we adopt a theological lens from the start. The problem, as I have shown, is that even if one provisionally grants certain theological assumptions, such an explanatory framework runs into trouble when disconfirmatory data is brought to bear. Unless one is willing to grant Southgate liberal use of *ad hoc* assumptions, such an explanatory framework quickly becomes dubious.

With regards to the broader goal of this thesis, what I have shown is that both McGrath and Southgate think that it is meaningful to speak of theism as "making sense" of the world. What I have tried to show is that it is fair to treat theistic claims as a kind of scientific hypothesis. This is not to say that *religious* claims are reducible to scientific claims, but it is to say that when theistic philosophers or theologians speak about "making sense" of the world through a theistic lens, a way to conceptualize this kind of speech is to think of the theist as offering an explanation or a hypothesis. McGrath openly embraces the term "explanation", while Southgate hesitates to do so.

If methodological naturalism or methodological atheism is to be replaced, what is needed is an epistemological framework which avoids ruling out theistic explanations *a priori*. In other words, what is needed is a methodology capable of assessing theistic claims. In this chapter, I have tried to show some of the ways in which this might be done by appealing to IBE. I have shown that scholars can adopt IBE regardless of their theological commitments.

# Conclusion

In this thesis I explored the question of whether theistic explanations can be empirically assessed. This thesis was limited in that it was focused on the perspectives of three contemporary scholars of science and religion. In Chapter One I explored the epistemological system of Gregory Dawes. Dawes believes that progress can be made when it comes to assessing theistic explanations. He offers an epistemological system which does not *a priori* reject explanations involving divine action. His system rests upon three crucial pillars. The first is the viability of abductive reasoning. The second is the viability of his schematization of intentional explanations. The third is the appeal to explanatory criteria in order to assess competing potential explanations. I ended chapter one by suggesting that the second pillar is the most controversial. Nonetheless, Dawes' work is a step forward in rigorously systematizing the problem of theistic explanations. It avoids engaging in religious apologetics or anti-religious polemics, while problematizing the insistent agnosticism of methodological naturalism.

In Chapter Two I explored the perspectives of McGrath and Southgate. McGrath welcomes abductive forms of argumentation as well as appeals to explanatory criteria. McGrath believes that Christian theism embodies a viable explanatory framework of empirical phenomena. Southgate by contrast is much less bold in offering theism as an explanation, but nonetheless maintains that it can act as something analogous to a lens through which one could see the world. McGrath affirms the viability and importance of IBE for Christian apologetics. Because IBE is employed by the natural sciences, the hope is that natural theology might mimic scientific reasoning in form. Southgate is offering theism as an explanatory framework, but in a weaker sense than McGrath. Whereas McGrath offers a natural theology, Southgate offers a theology of nature. For Southgate, theology is a worldview or a lens through which one

interprets reality. Unlike McGrath, Southgate is less interested in offering a rational justification for why one should actually adopt a theistic worldview. McGrath is more optimistic or confident in his theology insofar as he believes that theism can be rationally defended. The problem with Southgate's position is that it abandons any pretense to rationally justify a theistic worldview. The problem with McGrath's position is that his defense of theism is weak.

In Chapter Three I brought these scholars into conversation with one-another. If one takes seriously the claim made by Dawes regarding the intentional nature of theistic explanations, then it is striking the degree to which both McGrath and Southgate ignore this dimension in their defense of theism. By offering an explanation which is intentional in nature, the theist must posit the goal of the divine agent so that we may formulate predictions about what we would expect if the explanation were sound. By avoiding this step, the theist's arguments appear to be merely *ad hoc* theological rationalizations of some phenomena. The epistemological point however is that theistic hypotheses need not be limited in this way. There is nothing in principle preventing the theist from formulating a theistic explanation in such a way as to give outsiders a means of corroborating the explanation.

The main issue at the heart of this work was the question of whether or not theistic claims can be assessed empirically and intersubjectively. I have found that Dawes' epistemological framework is particularly useful towards achieving this possibility. Dawes highlights and parses the different ways in which particular theistic explanations could work in particular circumstances. Dawes' work thus provides the reader with an approach by which proposed theistic explanations can be assessed. The method is intersubjective insofar as it appeals to rationality and explanatory criteria; it is also empirical insofar as it prioritizes empirical corroboration of theistic explanations.

## Demarcation as a discursive tactic

If the arguments in favor of methodological naturalism fail, why does it persist? A useful way to approach this question is to examine *the function* of affirming and maintaining methodological naturalism. In other words: Who benefits? Talal Asad argues that the invention of the category of "religion" as distinct from other human enterprises benefits two categories of individuals:

> It may be a happy accident that this effort of defining religion converges with the liberal demand in our time that it be kept quite separate from politics, law, and science - spaces in which varieties of power and reason articulate our distinctively modern life. This definition is at once part of a strategy (for secular liberals) of the confinement, and (for liberal Christians) of the defense of religion. (Asad 2002, 115-116)

What I am arguing is that advocates of methodological naturalism engage in a rhetorical move which is designed and intended to keep certain parties satisfied. To change Asad's terminology slightly, it may be a happy accident that defining supernatural claims as "beyond" the scope of empirical inquiry converges with the secular liberal ethos of our time. Methodological naturalism is a helpful strategic framework for both religious and non-religious secular liberal-minded scholars who favor multiculturalism and pluralism, since it involves bracketing certain religious or theological propositions altogether. If theistic explanations are all equally in the same way and to the same degree non-verifiable, then everyone's theistic beliefs are safe and thus equality is maintained.

Picking up on this line of argument, Philip Barnes has written about the precarious situation of religious education in the United Kingdom. Barnes critiques "religionism," a term coined by John Hull in the 1990s meant to parallel the term "racism" (Barnes 2012, 72). Religionism involved the belief that one's own religious tradition is uniquely true and that the

religious traditions of others were not. Hull's claim was that religionism leads to intolerance, and so to promote diversity one needs to correct religionism. Barnes doubts Hull's strategy:

> There is a range of problems with this strategy for challenging intolerance and prejudice in society, which are by now well developed in the literature and familiar to religious educators. In a sense Hull's solution to the problem of diversity is to deny the ultimate nature of diversity, for if the different religions are complementary then diversity is secondary to essential agreement: every religion initiates a saving encounter with the divine. This is hardly a position that endears itself to orthodox religious believers who look to their own religion as uniquely true. Indeed, some feel that their religion is being misrepresented in the name and cause of social harmony. The assumption that all religions are true also encourages educators to overlook the doctrinal aspect of religion (where disagreement is most obvious) and to bypass the controversial issue of religious truth claims and their assessment. (Barnes 2012, 73)

Although Barnes does not invoke use of the term "methodological naturalism," the parallel here is close enough: "religious truth claims" (or, for the purposes of this thesis, theistic explanations) are beyond assessment or they are all in some sense equally true. What cannot be granted under this model is that some theistic claims might be more empirically verifiable than others. This possibility is denied not as a consequence of logical reasoning about theistic explanations, but out of political expediency.

At the annual meeting of the American Institute of Biological Sciences in 2000, paleontologist Stephen Jay Gould offered some remarks on how to reconcile science pedagogy with a largely

devout American demographic. In his speech, Gould juxtaposes a logical argument with a political expediency argument:

> There is no conflict between science and religion. If we can get that across, we will prevail. […] The point is this, if 80-90% profess [a belief in a supreme being], whatever they're practicing, and they think that evolution is against religion, we're not going to get very far. So the main reason why we have to keep stressing that religion is a different matter, and science is not in any sense opposed to it, one's about factuality and theory making about the natural world, and the other is about ethics and values and meaning in a spiritual sense. The reason why we support that position is that it happens to be right, logically. But we should also be aware that it is very practical as well if we want to prevail. (Gould 2000)

Gould here is presupposing that religious traditions are concerned only with ethical questions at the expense of fact-claiming and sense-making activities. He reiterates this point more clearly in one of his written works: "The net of science covers the empirical realm: what is the universe made of (fact) and why does it work this way (theory). The net of religion extends over questions of moral meaning and value. These two magisteria do not overlap […]" (Gould 2011, 274). To evoke Asad's approach, religion is here privatized and kept away from public discourse. It is difficult to translate Gould's argument in the terms I used in this thesis, since he denies that religious traditions are in the business of offering explanations at all. But Gould's statement provides an example of a scholar acknowledging the political expediency of the view which says that religion or theism can be demarcated from empirical assessment.

The remarks made by Asad, Barnes and Gould thus all point to the same phenomenon: due to certain political concerns, religion is demarcated away from the realm of public discourse and

public scrutiny. Religions become flattened or relativized: none are any more verifiable than others. All are the same with regards to their empirical content, which is to say they have none. Even if a claim about divine action is acknowledged to be propositional in nature, methodological naturalism prevents us from assessing it.

This explanation accounts for why advocates of methodological naturalism single out "fundamentalist" Christians who insist that their theistic claims explain observations in the real world, or that a theistic explanation can provide a valid explanation for an event in the past (Gould, Leonardo's Mountain of Clams and the Diet of Worms: Essays on Natural History 2011, 271). Fundamentalist Christians object to the methodological naturalist framework, because it *a priori* sweeps theistic explanations off the table. These Christians, in contrast to the liberal Christians must have misunderstood something, or so it is presumed. They must have misunderstood the limits of the historical method or the scientific method, or they must have misunderstood the nature of the sacred texts, confusing allegories and narratives for scientific and historical claims. The key point is that members of this group are considered beyond the pale not because they are "religious" *per se,* but because they object to the framework described by Asad as a strategy of confinement. Methodological naturalism is part of this strategy of confinement (for secular liberals like Gould) and part of the defense of religion (for liberal Christians like Southgate).

## Moving forward: some thoughts and questions

Moving towards an epistemological framework which welcomes theistic claims into consideration means that theistic claims will have to be assessed instead of sidelined. One may have several worries about such a proposal. One worry would be that religious apologetics or anti-religious polemics may enter into the realm of scholarly discourse. However, the veracity of

theistic explanations or religious truth claims is already to some degree questioned by contemporary scholarly discourse. Traditional claims about authors of the biblical texts are challenged. Origin myths are challenged. Specific historical claims made by various religious traditions are challenged.

One solution which in my view is deeply problematic involves the suggestion that the empirical method upon which scholarly and scientific fields are founded represents merely *a* way of knowing among many. On this view, if we affirm the primacy of a scientific mode of thinking based on evidence and reason over and above other forms of knowledge or rationality, then we are guilty of scientism. One might go further and even suggest that scientism is a form of Western imperialism. In other words, to assert that a scientific worldview has a better claim to being a more accurate representation of reality than a given religious worldview is to express a kind of absolutism. As a result, some thinkers might prefer to present the empirical method or the naturalism of the modern sciences as being merely an "alternative" view to religious or theistic perspectives. This approach has the advantage of being pragmatic in a multicultural society insofar as it avoids offending religious sensibilities. But it is not a serious engagement with the underlying epistemological issues; rather it is a way of short-circuiting these issues altogether. This approach recalls Gould's words above, where he expresses the political expediency of presenting evolution as compatible with a theistic worldview.

A number of epistemological issues merit further consideration. Under what circumstances are scholarly explanations in conflict with theistic explanations? When are scholarly or scientific accounts compatible with theistic explanations? How can the differently-specialized scholars within religious studies such as historians of religion or anthropologists shift away from methodological naturalism towards an intersubjective epistemological framework in

which theistic explanations? The theoretical and methodological considerations involved in such a shift are likely to vary between the different subfields within religious studies; for example if such a shift were to occur, ethnographers of contemporary lived religions and historians of ancient religions would each face unique theoretical challenges. Some religious traditions base their knowledge claims in appeals to personal revelation, dream interpretation or other non-empirical sources. In these instances, how can an empirical methodology assess the claims being made? Is it pedagogically advantageous to present scholarly explanations as compatible with theistic explanations even if we believe that they are not? It is my hope that this thesis generates interest in methodological naturalism and related issues among scholars of religion in particular.

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