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# THE RETREAT ARGUMENT

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## 1. INTRODUCTION

Some philosophers and scientists argue that as science progresses the religious domain shrinks ever more. They see the advance of science as an argument against religion and for naturalism. In what follows I construct the argument that is tacit in this line of reasoning and criticize it.

## 2. PRELIMINARIES

Before discussing and criticizing the argument I define some key terms. They are ‘naturalism’, ‘supernaturalism’, ‘parsimony’ and ‘explanatory power’.

### *Naturalism*

Naturalism is a term used to cover many meanings.<sup>2</sup> In this paper, I use ‘naturalism’ to refer to the thesis that there exists nothing supernatural whatsoever.<sup>3</sup> Usually the claim that there is something supernatural is cashed out as the claim that there exist(s) one or more supernatural beings. Supernatural beings are beings like gods as they are worshipped in various religions, demigods, angels, demons and the like. Stating that there is something supernatural, however, need not commit one to the idea that there are supernatural beings. The supernatural might be abstract forces like Qi or abstract entities like the Hindu Brahman. Distinguishing necessary and sufficient conditions for what counts as supernatural is notoriously difficult. Instead, I will use the concept of supernatural as a family resemblance concept. This approach means that I will refrain from formulating necessary and sufficient conditions (though I will discuss some sufficient conditions for ranking beings under ‘supernatural beings’ below). Instead, a small number of uncontroversial examples of what is commonly referred to as ‘supernatural’ like the Christian God, Hindu gods, angels, demons, ancestor spirits, Qi can be taken as exemplars. Things can be classified as supernatural if they resemble these exemplars to a sufficient extent.

This approach raises issues of vagueness because it is not immediately clear how much a being or force must resemble the exemplar to qualify as supernatural. This need not be a problem because the phenomenon we try to capture with the term is somewhat vague. There is some more clarity as to what counts as members of the narrower category of ‘supernatural being’. Naturalists tend to be quick to categorize something as a supernatural being. Most naturalists nowadays are reluctant to limit the natural to the physical, but the non-physical things they allow for are usually limited to things that supervene<sup>4</sup> on physical things or are at least very common, like social institutions or relations between people. For example, James Ladyman excludes everything that is ‘spooky’ (Ladyman 2011). He is not specific over what ‘spooky’ amounts to but it has an air of being strange or being out of the ordinary about it. In any case, the non-physical things naturalists allow in their ontology are not beings<sup>5</sup>, so it is safe to say

that all non-physical beings can be counted among the supernatural beings. Some physical beings will, however, also be considered supernatural. For example, members of the Church of Latter Day Saints hold that God is a physical being. Since the Mormon God resembles the Christian God to a large extent, he can be counted among the supernatural beings. Naturalists do not usually allow for invisible beings either. The range of invisible beings is taken not to include extinct or long-deceased beings (who cannot currently be seen) but is limited to beings that because of their own nature cannot be seen by humans or have the ability of being unseeable by humans. It is hard to think of such a being that is acceptable for naturalists. Again not all supernatural beings are invisible in this sense. For example, some Hindu gods, like the avatars of Vishnu, are believed to be visible. So invisibility is also a sufficient but not a necessary condition for being a supernatural being. A final sufficient but not necessary condition is existing outside space and time. No being that exists outside space and time or is able to do so will be acceptable for naturalists. However, many spirits are believed to be bound by space and time just like human beings are or be able to do so<sup>6</sup>. In summary, I discussed three properties of a supernatural agent that can be considered sufficient conditions:

- (i) Being non-physical.
- (ii) Being invisible.
- (iii) Being able to exist outside of space and time.

These three sufficient conditions can get us a long way towards distinguishing supernatural beings and thereby towards defining what naturalism is. However, since we lack necessary conditions for what counts as supernatural beings and lack any clear conditions for the broader category of the supernatural, we cannot avoid using the supernatural as a family resemblance concept.

### *Supernaturalism*

I use ‘supernaturalism’ to refer to the opposite thesis, namely the thesis that there exists at least one supernatural being or something supernatural. Thus defined supernaturalism is quite vague and it can be cashed out in many, rather different, ways like monotheism, polytheism, full-blown Christian belief, and many others. All of these imply supernaturalism. Whether supernaturalism can be equated to theism depends on how the latter is defined. Theism is the thesis that there exists at least one deity. If ‘deity’ is synonymous with ‘supernatural being’, ‘theism’ is interchangeable with ‘supernaturalism’. Sometimes spirits, angels and demons are not considered deities. For example, Christianity (at least in some forms) accepts the existence of angels but claims that there is only one God. Many forms of Islam accept the existence of jinn<sup>7</sup> and uphold a strict monotheism. The vast majority of traditions that accept supernatural beings like spirits or angels also accept a supreme god or supreme gods. Some new age traditions are exceptions. The Faery Wicca tradition emphasizes the intervention of elves, fairies and spirits in people’s lives while remaining largely silent about gods.<sup>8</sup> They would be an example of supernaturalists that are not theists. I choose to focus on supernaturalism because a lot of supernatural beliefs people hold are about spirits and not about deities. The term also has no problems including supernatural forces like Qi and Brahman.

### *Explanatory Power*

Like parsimony, which I discuss below, explanatory power is a theoretical virtue. According to Peter Brössel, the core of all measures of explanatory power is that “how well a hypothesis explains the evidence depends on how much the hypothesis increases the probability of the

evidence.” (Brössel 2015: 3880) However, explanatory power is often ill defined by philosophers.<sup>9</sup> Petri Ylikovski and Jaako Kuorikoski note that explanatory power is usually used in two broad ways. In a first way, ‘explanatory power’ means the power of a theory to explain many facts or many kinds of facts. Ylikovski and Kuorikoski claim that explaining many *kinds* of facts is more important than the number of facts of the same kind because the actual number of explananda is a contingent matter and does not make a theory preferable. In its second use, ‘explanatory power’ means the theory’s general power to explain. Ylikovski and Kuorikoski note that this second use is vague and covers a range of other virtues that have little in common. (Ylikovski and Kuorikoski 2010)

My use of ‘explanatory power’ in this section is in line with Ylikovski and Kuorikoski’s first use. I take ‘explanatory power’ to be:

The more kinds of phenomena a theory can explain, the stronger its explanatory power.

For the purposes of this paper, I take it that a theory can explain something when it is shown to be probable on the theory. My use does not match accounts of ‘explanation’ in philosophy of science,<sup>10</sup> but is more applicable to metaphysical theories (like naturalism or supernaturalism). Because my arguments below address phenomena, my definition applies to phenomena rather than facts<sup>11</sup>.

### *Parsimony*

Another theoretical virtue I use in this paper is parsimony (also known as Ockham’s Razor). Alan Baker distinguishes two kinds of parsimony. Quantitative parsimony states that theories should not postulate a greater number of entities than needed. Qualitative parsimony states that theories should not postulate more kinds of entities than required (Baker 2010). Both principles are not without their critics,<sup>12</sup> but are widely accepted. For my purposes, qualitative parsimony is more important. I define ‘parsimony’ as:

The fewer kinds of entities a theory postulates, the higher its degree of qualitative parsimony.

With these definitions in mind I now discuss the retreat argument.

### 3. THE ARGUMENT

Some authors argued or suggested that as science advances the supernatural domain becomes ever smaller. I will refer to their argument (which often remains tacit) as the ‘retreat argument’. They point to how God (or anything supernatural) became superfluous in cosmology in the early modern era.<sup>13</sup> Later God was also rendered superfluous for biology. Here Darwin’s theory of evolution by means of natural selection offers a naturalistic explanation for biological diversity and apparent design. Some argue that God also became superfluous in the psychology of religious experiences since new theories could explain their occurrence naturalistically. If the argument is correct, it concludes to the (likely) truth of naturalism.

One author who makes a similar argument is Maarten Boudry. He writes:

[A]s a result of centuries of scientific investigation, earlier animistic, anthropomorphic, and teleological views have gradually been superseded by more parsimonious, impersonal explanations (...). Whenever scientific knowledge advances, religion is forced to retreat. (Boudry 2015)

An author who makes a more elaborate retreat argument as part of a broader argument is Victor Stenger. His retreat argument is part of a broader argument for the conclusion that belief in the Abrahamic God is a failed hypothesis. The hypothesis states that a god with the following attributes exists:

- a. God is the creator and preserver of the universe.
- b. God is the architect of the structure of the universe and the author of the laws of nature.
- c. God steps in whenever he wishes to change the course of events, which may include violating his own laws as, for example, in response to human entreaties.
- d. God is the creator and preserver of life and humanity, where human beings are special in relation to other life forms.
- e. God has endowed humans with immaterial, eternal souls that exist independent of their bodies and carry the essence of a person's character and selfhood.
- f. God is the source of morality and other human values such as freedom, justice, and democracy.
- g. God has revealed truths in scriptures and by communicating directly to select individuals throughout history.
- h. God does not deliberately hide from any human being who is open to finding evidence for his presence. (Stenger 2007: 41–42)<sup>14</sup>

Stenger claims that his hypothesis closely matches the god in which Christian, Jews and Muslims believe. He argues that the God hypothesis has been refuted or superseded. Element e would have been refuted by scientific advances that show there is no such thing as an immaterial, eternal soul. Other elements are not refuted but superseded when scientists offered better explanations for them. Stenger argues that the structure of the universe and its laws do not need an explanation that refers to something supernatural. Instead they can be explained by our best theories in physics. The phenomena in d, i.e. life and humanity, are better explained by Darwin's theory of natural selection and hence there is no need to refer to a god according to Stenger (Stenger 2007). Superfluity plays an important role in Stenger's overall argument. Partly because God became superfluous to explain a large number of phenomena, the God-hypothesis fails.

Herman Philipse suggests a retreat argument as well.<sup>15</sup> He gives examples from the history of science where theories were proposed that could better make sense of certain phenomena than theism could. Thereby theism entered into competition with scientific theories because both attempted to explain the same phenomena. Again and again theism proved no match for the rivaling theory, according to Philipse. Philipse draws an inductive conclusion when he writes:

[T]he history of science taught many contemporary theists that it is too risky to appeal to particular empirical phenomena in support of theism. In countless cases, scientists or scholars came up with more precise and detailed explanations of the phenomena, so that religious explanations were massively superseded. Should we not conclude by a pessimistic induction that this is always likely to happen, or that it is at least a real possibility? (Philipse 2012: 162)

Following Philipse, the retreat argument is best considered as an inductive argument against the existence of anything supernatural and thus for naturalism. On this view, phenomena in cosmology and biology along with religious experiences lost their evidential force for accepting the

existence of something supernatural when better scientific, naturalistic explanations for those phenomena were proposed. A defender of the retreat argument need not claim that we now arrived at a point where no phenomena that serve as evidence for anything supernatural are left. She rather claims that we can expect a scientific explanation for those phenomena, which will remove the evidential force.

Before we can assess the retreat argument a more precise statement is needed. I present one in the next section.

### 3.1 *The argument stated*

The retreat argument can be stated as follows:

- (1) The origin of the universe is best explained without reference to anything supernatural.
- (2) The laws of nature are best explained without reference to anything supernatural.
- (3) Human morality is best explained without reference to anything supernatural.
- (4) Apparent design in nature is best explained without reference to anything supernatural.
- (5) Religious experiences are best explained without reference to anything supernatural.
- (6) Phenomenon  $X^n$  is best explained without reference to anything supernatural.
- (7) Therefore, nothing supernatural is probably needed to explain anything.
- (8) If nothing supernatural is needed to explain anything, naturalism is more likely true than supernaturalism.
- (9) Therefore, naturalism is more likely true than supernaturalism.

I follow Stenger in focusing on certain phenomena rather than scientific disciplines. We noted above that some claim that science renders everything supernatural superfluous for cosmology, biology or psychology. It is not clear what it means for something to be superfluous for a scientific discipline. Instead, defenders of retreat arguments appear to argue that God (or other supernatural beings) are rendered explanatory superfluous. I define ‘explanatory superfluous’ as:

Something is explanatory superfluous for a phenomenon iff it does not feature in the best explanation of that phenomenon.

Though scientific disciplines could be called phenomena, defenders of retreat arguments have much more concrete phenomena in mind, like the origin of the universe, apparent design and religious experiences. They argue that for each of these phenomena the best explanation is naturalistic and thus does not refer to anything supernatural. They hereby (tacitly) suggest that before these phenomena were explained naturalistically the best explanation did indeed refer to God or another supernatural being. They tacitly assume that because each phenomenon is (now) best explained naturalistically, it is not or no longer evidence for the existence of something supernatural.

I lack the space to discuss all premises at length as Stenger does. I do note that for all phenomena in premises (1) to (5) it has been argued that they are best explained *with* reference to something supernatural.<sup>16</sup> I will look closer to premises (4) and (5) below.

Philipse especially suggests that the consecutive successes of naturalistic explanations for phenomena lead to an inductive conclusion. He suggests that remaining reasons are suspect and we should expect a future naturalistic explanation for them too. He thereby suggests that in the end nothing supernatural is probably needed to explain anything. Since the argument is

inductive, it cannot conclude to a stronger claim like ‘nothing supernatural is needed to explain anything’.

The conclusion (7) by itself does not speak in favor of naturalism or supernaturalism. To argue from this conclusion to naturalism, we need to rely on the principle of qualitative parsimony (see above). Supernatural beings are entities of a different kind than natural entities. Adding them to a theory<sup>17</sup> will thus make the theory less qualitatively parsimonious. Qualitative parsimony is not the only virtue that guides theory choice. We discussed explanatory power above. If premises (1) to (5) are true and an inductive conclusion like (7) can be drawn, adding something supernatural will not make a theory more explanatory powerful. If (7) is true, naturalism can explain all kinds of phenomena and a non-naturalist metaphysical theory will not be able to explain more. Conclusion (7), if true, shows that naturalism compares favorably to supernaturalism on both explanatory power and parsimony. Therefore, naturalism is argued to be more likely true than supernaturalism.

### 3.2 *Premise (4)*

Each of the premises in the retreat argument is the conclusion of an independent argument. I call these arguments ‘superfluity arguments’. They argue that everything supernatural is superfluous for explaining a phenomenon like the origin of the universe, or morality. In this section and the next I discuss two such arguments. First I discuss an argument for the conclusion that everything supernatural is superfluous for apparent design.

Apparent design in nature has always been an important reason for believing in gods. It features in philosophical arguments for theism. The most famous is William Paley’s watch analogy (cf. Paley 2006). It also plays an important role in the life of religious believers.<sup>18</sup> Darwin’s theory of natural selection shows how apparent design can arise as a result of natural selection without any need for something supernatural. Because of his theory, apparent design in nature can no longer be considered evidence for the existence of anything supernatural. This is because anything supernatural is explanatory superfluous for apparent design.<sup>19</sup>

An argument for premise (4) can be formulated as follows:

- (10) The Darwinian Theory of Evolution is the best explanation for apparent design in nature.
- (11) The Darwinian Theory of Evolution does not refer to anything supernatural
- (12) Therefore, everything supernatural is explanatory superfluous for explaining apparent design.
- (13) Therefore, apparent design is not evidence for supernaturalism.

The best explanation for apparent design premise (4) refers to is the Darwinian theory of natural selection. Darwin’s theory can explain how apparent design in nature resulted from mechanisms like natural selection, genetic drift, migration and/or mutation. A small minority of scholars claim that referring to something supernatural is still needed to explain some complexities in nature.<sup>20</sup> Most, however, agree that the natural mechanisms that make up the Darwinian theory suffice to explain apparent design in nature.

Conclusion (12) follows from premises (11) and (10). Something that does not feature in the best explanation of a phenomenon is explanatory superfluous for that phenomenon. To explain apparent design, supernatural beings are not needed and hence they are explanatory superfluous for it.

Conclusion (13) follows from (12). If nothing supernatural features in the best explanation of a phenomenon, that phenomenon is not evidence for the existence of something supernatural. I take a phenomenon to be evidence for supernaturalism if that phenomenon is more likely to occur on supernaturalism than on naturalism. If apparent design is best explained naturalistically, apparent design is as likely to occur on naturalism as on supernaturalism. Therefore, apparent design is not (or no longer) evidence for supernaturalism over naturalism.

### 3.3 *Premise (5)*

According to some, a similar argument can be made for religious experiences. Justin Barrett writes:

‘We have identified the regions of the brain responsible for religious experience and can artificially induce religious experience. Therefore, its causes are entirely natural and so, we have no need to appeal to supernatural to account for them. Hence, theistic belief is unjustified.’ (Barrett 2007)

Barrett does not defend this claim himself and his conclusion does not follow from his premises. He does suggest that a superfluity argument for religious experiences can be made based on recent developments in neuroscience.

Fales has argued that a naturalistic explanations for mystical experiences can undo their evidential significance (Fales 1996a). The naturalistic explanation to which Fales refers is defended by Ioan Lewis.<sup>21</sup> Lewis argues that mystical experiences can be explained as a means to access political and social power or control. Fales applies Lewis’ theory to explain the mystical experiences of Theresa of Avila (Fales 1996a). He also argues that Lewis’ theory can probably explain other religious experiences as well. Fales concludes that naturalistic explanations of religious experiences are more powerful than theistic explanations (Fales 1996b).

A superfluity argument for religious experiences looks like this:

- (14) The best explanation for religious experiences is drawn from neuroscience or explains them in terms of political and social control.
- (15) Both explanations do not refer to anything supernatural
- (16) Therefore, everything supernatural is explanatory superfluous for religious experiences.
- (17) Therefore, religious experiences are not evidence for supernaturalism.

Some of the premises in this argument are less straightforward than their counterparts in the superfluity argument for apparent design I discussed above. First of all, it is not at all clear whether (14) is true. Alexander and Andrew Fingelkurts conducted a review of the neuroscientific study of religious experiences. They conclude:

At the moment neuroscience cannot provide a reliable explanation for religious experience (...). However, already today cognitive neuroscience in a broad sense may contribute to an overall description of religious experience with regards to [their] biological and psychological dimensions. (Fingelkurts and Fingelkurts 2009: 316)

The quote shows that it is not clear that neuroscience offers the best explanation for religious experiences. Fingelkurts and Fingelkurts suggest that neuroscience *describes* rather than *explains* religious experiences.



Explanations like Lewis's explanation of religious experiences in terms of political and/or sociological power have been criticized in recent years. Ann Taves complains that explanations of this sort are not scientifically informed.<sup>22</sup> While some religious experiences can give access to power, this explanation does not account for many religious experiences that do not result in increased power. Often religious experiences do not change the social status of the subject having them and sometimes it even leads to marginalization. Christina van Dyke notes that medieval mystics were often frowned upon by their scholastic contemporaries.<sup>23</sup>

My discussion of the neuroscience of religious experiences and explanations in terms of political and social power shows that it is not at all clear that these are the best explanations of religious experiences. Premise (14) is thus not established. Other explanations might be better but at this point it is not clear what they are and whether they are naturalistic. If it is not clear whether the best explanation of religious experiences is naturalistic, it is not clear whether premise (5) is true.

#### 4. CRITICIZING THE ARGUMENT

We noted in section 3.3 that it is not clear whether premise (5) of the retreat argument is true. This need not imply that the retreat argument fails. Being an inductive argument, it can still conclude to the likely truth of naturalism if naturalistic explanations best explain enough other phenomena. The argument would however stronger if premise (5) was established to be true. A defender of the retreat argument will also need to show those premises (1) to (3) are true. I noted above that all have been called into doubt. I lack the space to discuss premises (1) to (3) in detail. Instead I discuss some more general objections to the retreat argument in this section.

Van Inwagen raised one objection. He writes:

Why do I believe in God? Certainly not because I can write down some reason for believing in God that would force anyone who understood it to share my belief. There is no such reason. (...) As far as I can see, the reason I believe in God is that belief in God is built into me – and, I would add, into everyone else. (Van Inwagen 2005: 145)

Van Inwagen thus argues that the whole idea behind the retreat argument is mistaken. He argues that pointing to alternative naturalistic explanations for religious phenomena does not aid the case against belief in God because that belief is not (necessarily) based on reasons. He even suggests that reasons are not needed for rational belief in God. Van Inwagen's claim fits well with the position in religious epistemology known as 'Reformed Epistemology'.<sup>24</sup> Defenders claim that reasons or evidence is not needed for belief in God to be justified, rational or warranted.

Van Inwagen's objection is not valid against the retreat argument I have reconstructed here. Van Inwagen and the retreat argument are discussing different things. Van Inwagen appears to be concerned with personal justification or the question if and when a subject is justified in holding supernatural belief. The retreat argument argues for the (likely) truth of a metaphysical theory, i. e. naturalism. While a sound retreat argument may have implications for the justified status of supernatural belief, this is only an indirect consequence of the argument.<sup>25</sup> The argument makes no claim about how supernatural belief is formed and its conclusion is compatible with Van Inwagen's claim.

A second, better, objection to the retreat argument as I stated it is that parsimony and explanatory powers are not the only virtues that guide theory choice. Other considerations for preferring one theory to another include (among others) refutability, coherence, unificatory power and simplicity<sup>26</sup>. Parsimony and explanatory power are thus not the only theoretical

virtues that guide theory choice and make the truth of one theory over another more likely. Other virtues on which supernaturalism might do better than naturalism are coherence and simplicity. Richard Swinburne argues at length that theism is more coherent and simpler than naturalism. Swinburne's definition of 'theism' is much narrower than our definition of supernaturalism.<sup>27</sup> If he is right, at least one version of supernaturalism is more coherent and simple than naturalism. Charles Taliaferro notes that one version of supernaturalism, theism, might be preferable to naturalism on unificatory power. He writes: 'While naturalism may be thought to be privileged on grounds of simplicity (after all, naturalists posit the cosmos, whereas theists posit the cosmos plus God), (...) theism has an ideal, greater explanatory unity in accounting for both the very existence of a contingent cosmos and its goodness.'<sup>28</sup>

Another objection echoes a more general objection to inductive arguments. It is not clear how many premises like (1) to (5) you need to be able to draw a general conclusion. Even if the case for (1) to (5) is strong, there may remain phenomena that serve as reasons for accepting supernaturalism. For example, J.P. Moreland argues that the phenomenon of consciousness is best explained by referring to God (Moreland 2009). Others argue that beauty is best explained by God's activity (e.g. Swinburne 2004: 190-91). Still other phenomena, which are not on defenders of retreat arguments minds, could be best explained by reference to a supernatural being.

## 5. CONCLUSION

In this paper I have discussed an argument that frequently remains tacit or not fully developed. I noted several problems with this argument, namely that some of its premises are not established and that it does not take into account other theoretical virtues besides parsimony and explanatory power. While the problems I have noted can in principle be overcome. I argue that at present they have not been, and that the retreat argument therefore remains unconvincing.

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- [Correction added on 16 March 2018, after first online publication: The reference "Alston, William P. 1994. Catechism of the Catholic Church (Libreria Editrice Vaticana: Vatican City)" has been changed to "Catechism of the Catholic Church. 1994. Libreria Editrice Vaticana, 2nd ed".]
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## Notes

1 I thank Rik Peels, Gijsbert van den Brink, René van Woudenberg, Lieke Asma, Wout Bisschop en Naomi Kloosterboer for comments on earlier versions of this paper.

2 For an overview of some of the theses 'naturalism' can designate see (Flanagan 2006; Papineau 2007; Rosenberg 1996).

3 Some authors claim that naturalism also excludes immaterial souls. I omitted immaterial souls because they play no role in supernatural beliefs or (as Plantinga notes) are implied by supernatural beliefs.

4 There is considerable debate over what the term 'supervenience' amounts to. For a discussion of varieties of supervenience see (McLaughlin and Bennett 2005). In its most generic form, something supervenes on something else if there can be no changes in the supervening thing without changes in the thing it supervenes upon.

5 Here, I use a common sense definition of 'being' where beings are living beings. This excludes non-physical things like social institutions, which naturalists tend to allow in their ontologies.

6 Sometimes supernatural beings are believed to exist in space and time. The Christian God is sometimes claimed to exist in space and time after creation. For a discussion see (Ganssle and Woodruff 2002; Craig 2001). Christians also believe that God was incarnate in Jesus in space and time.

7 Jinns can roughly be identified with spirits. For a detailed discussion of what Jinns are see (Moad 2017).

8 The Faery Wiccans, like many other neo-pagan groups, do not have a clear list of beliefs and are very liberal towards individual preferences in belief. Therefore it is possible that some Faery Wiccans do accept supreme gods. The emphasis is, however, usually on other supernatural beings.

9 Petri Ylikoski and Jaakko Kuorikoski note that philosophers often seem to attribute explanatory power on the basis of very different principles or without specifying what principle they have in mind at all (Ylikoski and Kuorikoski 2010).

10 See (Salmon 1989) and (Kitcher and Salmon 1989) for overviews of accounts of scientific explanation.

11 I use a common sense understanding of 'phenomenon' and 'thing' where a phenomenon is something that appears to a subject and a thing is a mind-independent entity.

12 See for example: (Sober 2001).

13 Pierre Simon Laplace exemplifies this development. When asked how God fitted in his cosmological model he responded with: 'I have no need for that hypothesis'.

14 I changed the number from the original statement.

15 (Philipse 2012: chapter 10) Philipse's argument can be reconstructed from his 'God-of-the-gaps argument'. In it he argues that theists should not rely on God (or another supernatural being) to explain certain observed phenomena. Philipse argues for a 'pessimistic induction' which should 'convince sophisticated natural theologians that they should avoid the risk of [a] God-of-the-gaps [argument].' (Philipse 2012: 161) Elsewhere, Philipse states: '[T]he increasing scientific progress of the last four centuries, during which religious accounts of phenomena have been gradually eliminated in favour of natural explanations, which are vastly superior in terms of explanatory power and predictive capacity.' (Philipse 2013: 9)

16 Defenders of the cosmological argument argue for the existence of God by claiming that God best explains the origin of the universe (e.g. Craig 1979). Frederick Danny discusses how many (older) philosophers claimed that the laws of nature are a manifestation of God's activity (Frederick 2013). More recently, Keith Ward suggested something similar (Ward 2008). Defenders of intelligent design claim that some complexities in nature require reference to design (see also below). Moral arguments for the existence of God argue that universal, true morality is not possible without God (see Evans 2014). Religious experiences also feature in a prominent recent argument for the existence of God (Kwan 2009).

17 There is some discussion whether theism can or should be regarded as a scientific theory. Like William Alston I accept that theism can be regarded as a metaphysical theory (Alston 1995). This also applies to supernaturalism. Whether both can be regarded as scientific hypotheses is irrelevant for my purposes in this paper.

18 We can think here of Romans 1: 20: For since the creation of the world God's invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made, so that people are without excuse. (NIV) The official catechism of the Catholic Church states unambiguously that God can be known from the created world: 'Our holy mother, the Church, holds and teaches that God, the first principle and last end of all things, can be known with certainty from the created world by the natural light of human reason.' (1: chapter 1 I.27)

19 A small minority of authors claims that referring to something supernatural is still needed to explain some complexities (e.g. Behe 1996; Dembski 2002). Most, however, agree that Darwin's theory suffices to explain apparent design in nature.

20 See for example (Dembski 2002).

21 See (Lewis 1989).

22 She writes: 'These studies, although well integrated with efforts at deconstruction across the humanities, are usually isolated from efforts to understand religion in the natural sciences.' (Taves 2011: 6)

23 She notes that mysticism was often considered 'feminine' because it was seen as less rational, more emotional, and more closely associated with matter and physicality. The term 'feminine' had a clear pejorative connotation in the middle ages (Van Dyke 2014).

24 Important defenders are Alvin Plantinga (Plantinga 2000), Nicholas Wolterstorff (Wolterstorff 1983), Kelly Clark (Clark 1990) and Michael Sudduth (Sudduth 2003).

25 A sound retreat argument will be a rebutting defeater for religious belief. If the argument can successfully conclude to the likely truth of naturalism, religious belief can no longer be rationally held.

26 Sometimes simplicity is taken to be synonymous with parsimony. Here, however, I use the term as applying to the number of hypotheses a theory has. A theory with fewer hypotheses will be simpler than one with more.

27 Swinburne writes: 'By "theism" I understand the doctrine that there is a God in the sense of a being with most of the following properties: being a person without a body (that is, a spirit), present everywhere (that is, omnipresent), the creator of the universe, perfectly free, able to do anything (that is, omnipotent), knowing all things (that is, omniscient), perfectly good, a source of moral obligation, eternal, a necessary being, holy, and worthy of worship.' (Swinburne 1993: 1)

28 (Taliaferro 2009: 208) Taliaferro refers to (Swinburne 2004) who made a similar point.