

Are Design Beliefs Safe?

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Abstract:

Recently, Del Ratzsch proposed a new version of the design argument. He argues that belief in a designer is often formed non-inferentially, much like perceptual beliefs, rather than formed by explicit reasoning. Ratzsch traces his argument back to Thomas Reid (1710-1796) who argues that beliefs formed in this way are also justified. In this paper, I investigate whether design beliefs that are formed in this way can be regarded as knowledge. For this purpose, I look closer to recent scientific study of how design beliefs are formed. I argue that the science strongly suggest that people easily form false beliefs. As a result, design beliefs can only constitute knowledge if subjects have additional reasons or evidence for design.

Keywords: design argument, cognitive science of religion, safety condition for knowledge.

1. Introduction

Recently, Del Ratzsch proposed a new version of the design argument. He argues that belief in a designer is often formed non-inferentially, much like perceptual beliefs, rather than formed by explicit reasoning. Ratzsch traces his argument back to Thomas Reid (1710-1796) who argues that beliefs formed in this way are justified. In this paper, I investigate whether design beliefs that are formed in this way can be regarded as knowledge. For this purpose, I look closer to recent scientific study of how design beliefs are formed. I argue that the science strongly suggest that people easily form false beliefs. As a result, design beliefs can only constitute knowledge if subjects have additional reasons or evidence for design.

2. Perceiving Design

Philosophy of religion (both contemporary and historical) knows a wide variety of design arguments.¹ They share a common core in which complexity is argued to point to the existence of a supernatural creator. A classic example is William Paley's argument based on apparent design in nature [17].

Contemporary examples argue that a designer or creator best explains the fine-tuning of physical constants needed for human life [11]. Del Ratzsch proposes a rather different design argument.² He proposes that people come to hold design beliefs not by means of an inference but by a cognitive process that closer resembles perception. He calls this process ‘perceiving design.’ In this section, I take a closer look at his argument.

Ratzsch starts off with an observation. He notes that many people have experiences where the belief that *x* was designed *comes over them* or *happens to them*.³ The experiences show that acquiring design beliefs is *passive and experiential*. As Ratzsch notes, his line of reasoning is similar to that of Thomas Reid. Reid argued that in some situations certain specific phenomenological content could automatically trigger cognitive states. Although the resulting state follows causally from the phenomenological content, it does not follow inferentially. On these occasions, subjects simply find themselves in a cognitive state. According to Reid, such experiences result from the way the human mind is constituted [26].⁴

Ratzsch not only argues that his description is more in line with how most people form design beliefs, he also suggests that other design arguments piggy-back on perceiving design. He argues that inductive design arguments might depend on a non-inferential process to identify base cases of design. Without being able to identify cases of design, no argument by analogy or induction can get off the ground according to Ratzsch [26]. For example, Paley’s design argument where he concludes that nature is designed because nature is analogous to a watch, appears to depend on perceiving design in nature. The argument is only plausible because we are able to intuitively see that the watch is designed and because we intuitively see that nature resembles the watch in its complexity. Ratzsch claims inference to the best explanation arguments (like Holder’s fine-tuning argument) might also depend on perceiving design. Judging that design is the best explanation for a phenomenon requires that a subject recognizes some properties of that phenomenon as *design relevant* [26]. For example, the precise alignment of the physical constants in Holder’s argument is intuitively recognized as a feature that point towards design.⁵ Ratzsch himself does not take a strong stance on whether all design arguments are in the end dependent on perceiving design. It seems as if at least in some cases this is not the case. Holder draws his conclusion after carefully comparing the probabilities of both theism and naturalism given the fine-tuning of physical constants [11]. This goes well beyond a mere intuitive recognition of design or design-like features. Nonetheless, Ratzsch convincingly argues that many people form design beliefs non-inferentially.

According to Reid, the acquisition of design beliefs is similar to the acquisition of beliefs about (other and one’s own) minds. He claims that human subjects acquire beliefs about minds only by noting their effects and signs.⁶ The connection between signs or effects and minds is simply built into human cognitive architecture. In a similar way, subjects form design beliefs after noting its signs and effects. The signs and effects of design include: contrivance, order, organization, intent, purpose, usefulness, adaptation, aptness/fitness of means to ends, regularity, and beauty [26].

Ratzsch does not discuss whether design beliefs that follow perceptions of design are justified or could constitute knowledge. Some of his references to Reid suggest that he does. When he makes the analogy with acquiring beliefs about minds he quotes Reid as follows: “We are conscious only of the operations of mind in which they are exerted. Indeed, a man comes to *know* his own mental abilities, just as he *knows* another man’s, by the effects they produce (...).” ([28] quoted by [26] emphasis added).⁷ Reid strongly suggests that perceptions of design can lead to knowledge as well. Ratzsch quotes: “When we consider attentively the works of nature we see *clear indications* of power, wisdom, and goodness.” ([28] quoted by [26]). Though Reid is not as firm here, his use of the term ‘clear indications’ suggests that the works of nature provide strong evidence for knowing that a designer exists.

3. The Epistemic Status of Design Beliefs

Drawing on Ratzsch, Alvin Plantinga discussed the epistemic status of design beliefs formed after perceiving design in more detail.⁸ Plantinga argues that design beliefs can constitute knowledge because they are formed in a basic way [22]. Basic beliefs are beliefs that are not accepted on the basis of other beliefs.⁹ According to Plantinga, basic beliefs can have warrant (i.e. that quality that makes true belief knowledge) if it is produced by a cognitive process that is properly functioning according to a design plan and is aimed at truth [21].

Plantinga's theory of warrant is not widely accepted. Ratzsch and Reid, however, suggest a more simple way in which design beliefs can be justified and even constitute knowledge. Both suggest that design beliefs are justified because they are similar to how beliefs about minds are formed. In both cases, a subject picks up signs and intuitively forms a belief. In the case of minds, the signs will mostly be external behavior like facial expressions. In the case of design, the signs are apparent order or complexity. We noted that Reid claims that beliefs about minds can constitute knowledge. Since he claims that design belief is similar, he thereby strongly suggest that they can constitute knowledge as well. This line of reasoning is in line with Reid's defense of common sense.¹⁰ Reid defends the validity of common sense judgments. He does not claim that all common sense beliefs are justified but argues that certain common sense principles, which possess the consent of many people, should be considered good ways of forming beliefs. The fact that these principles enjoy widespread consent reveals that they are part of the general human cognitive make-up. Reid argues that these general common sense principles provide good evidence for the beliefs they produce. Reid suggests that the way humans form beliefs about minds and about design are examples of general common sense principles. He thereby strongly suggests that the beliefs they produce are justified.

My aim below is not to assess whether design beliefs can be justified but to investigate whether design beliefs (when produced by perceiving design) can constitute knowledge. A first requirement for qualifying as knowledge is that a belief is true. A discussion of whether there is in fact a designer or creator lies beyond the scope of this paper.¹¹ I will assume for the sake of the argument that design beliefs are true. A second requirement for knowledge is that a belief is justified. We noted above that design beliefs could be justified in a Reidian framework. To qualify as knowledge, most contemporary epistemologists require more than justification. What a true belief requires to qualify as knowledge is subject of much debate. Some recent proposals argue that knowledge poses a modal requirement. One prominent proposal is a safety condition. I discuss this condition in the next section.

4. The Safety Condition for Knowledge

Before we can assess whether design beliefs (if produced by perceiving design) are safe, we need a clear view of the safety condition for knowledge.¹² As Dani Rabinowitz noted the basic idea behind the safety condition for knowledge is: "an agent S knows a true proposition P only if S could not easily have falsely believed P" [25] Being a modal notion, safety is cashed out using possible worlds. A belief P is thus safe if there is no close world surrounding the actual world where P is produced by the same belief forming process at the same time and false.¹³ There are thus four factors that remain fixed when assessing safety: the subject, the belief, the time and the belief-forming process. With these factors fixed, safety gauges whether the subject arrives at true beliefs if other features of the world vary.¹⁴

For our purposes, the subject is a person who forms design beliefs and the time is the moment after perceiving design. The belief under discussion is the belief that there is a creator. The creator can be regarded as a God or an intermediary being and he can be regarded as having created the earth or the universe. The belief-forming process that needs to be held fixed perceives design as it was discussed by Ratzsch. Rabinowitz makes a distinction between fine-grained and course-grained belief-forming

processes in accounts of safety.¹⁵ A process is coarse-grained if described generally or broadly and fine-grained is described in detail. Specifying detail for a belief-forming process raises a problem known as ‘the generality problem’ [25]. The generality problem was originally raised against reliabilist epistemologies [4] and states that specifying a belief-forming process in greater or lesser detail can affect its reliability. Vision in general can be regarded as a belief-forming process that generates mostly true beliefs and hence is reliable. When the process is limited to perception at great distance, it produces a lot more false beliefs and is unreliable. One defender of the safety account, Timothy Williamson, acknowledges that the safety-condition faces the generality problem [30].¹⁶ The generality problem can be evaded by being clear about the belief-forming mechanism. When the belief-forming mechanism is specified as ‘perception at great distance’, there is no problem in assessing the safety of beliefs it produces. I will return to this point below

In order to assess safety, we thus need to look at nearby possible worlds where a subject forms the belief that there is a creator after noting order or complexity. For this purpose, I will look closer to recent scientific study of how people come to believe in a creator.

5. Psychology of Perceiving Design

To assess the safety of belief in a creator formed when people perceive design, I will look at recent work in psychology and cognitive science. Perceiving design has been intensely studied by Deborah Kelemen and her team. In this section, I will give an overview of her and related work

Deborah Kelemen argued that children are prone towards ‘promiscuous teleology’. She and her team observed that children are prone to give teleological explanations for phenomena where teleology is absent [12], [13]. In a first study, children were shown photographs of living things, non-living things and artifacts. When they were asked what the thing was ‘for’, whilst explicitly being given the option to answer that they were ‘for’ nothing, they tended to assign functions to all things, whether they really were ‘for something’ or not. For example, a lion was reported to be ‘for visiting in the zoo’ and clouds were ‘for raining’. Adults who were subjected to a similar experiment did not show this tendency. In a second study, children were asked if a thing was ‘made for’ something. Children again showed a stronger tendency to answer that things were made for something than adults. In a third study, children and adults were given a choice between four categories of answers to questions of how something came to be, ‘one time accident’, ‘frequent accident’, ‘one time intentional’ and ‘frequent intentional.’ Here, children were keener to give intentional answers than adults. Kelemen concluded that children are promiscuously teleological and not selectively teleological like adults [12]. Margaret Evans reported findings, which support the claim that children of both religious and non-religious households display a bias towards intentional accounts of how species originate [8].

The studies mentioned above only attribute promiscuous teleology to young children. Kelemen and her team also found support for the idea that promiscuous teleology does not disappear in adulthood but rather goes dormant and continues to play an implicit role. Especially when adults were asked to answer similar questions like the children in earlier experiments under time pressure they were more error-prone and also showed a preference towards teleological explanations [14]. A study conducted on Romani subjects, with little or no scientific training, showed that they were more likely to endorse purpose-based explanations of non-living entities [2]. Kelemen suggested that science education causes teleological reasoning to recede but not completely vanish [14]. Adults seem to abandon teleological explanations when they learn scientific, material explanations for the phenomena under investigation. The intuitions, however, remain which suggests that for phenomena for which there is no scientific, material explanation adults will still tend to give teleological explanations. A study on patients with Alzheimer’s disease supports the view that the restriction of teleological explanations in adulthood is fragile. The patients were given a choice between mechanistic and

teleological explanations and preferred the latter. The tendency towards teleological explanations thus appears to recede when children acquire beliefs about the causal mechanisms of what was perceived as designed. However, if knowledge of causal mechanisms is affected by Alzheimer's disease, people slip back in systematically and promiscuously preferring teleological explanations [15].

Kelemen's research provides sufficient reasons to think that people frequently err when judging that something is designed. It strongly suggests that people are prone to form false beliefs that things, or beings are designed for some purpose.

All of this raises the question why people are prone to form design beliefs. Kelemen does not address this question. Stewart Guthrie argues that seeing teleology could be a by-product of the detection of intentional agents. Seeing goal orientation is one of the best cues for detecting agents. Since detecting agents is very important for survival (they might be predators), it is evolutionary beneficial to detect too many agents than too few. As a result forming beliefs about agents when none are around is adaptive. Since seeing goal orientation and teleology is a clear indicator of agency it could thus also aid survival to see too much teleology [10]. Having a clear idea about the evolutionary function could help in assessing the safety of design beliefs. If promiscuous teleology served an evolutionary function, it is likely that people will have it in more nearby worlds. There would thus be more nearby worlds in which people will have the same belief-forming mechanism.

6. Is It Safe?

Having a better view of the belief-forming process behind perceiving design, we can now assess whether beliefs produced by perceiving design are safe. The research by Kelemen and her team strongly suggest that design beliefs formed in this way are not safe. It shows that people easily make mistakes when judging that something is designed.

We are not concerned with the safety of all design beliefs. Design arguments, like the argument by Ratzsch, argue for the existence of a creator God. While conclusions of other design arguments (for example that a watch is designed) might be safe, I will argue that this belief is not. I will clarify my argument with the following example:

Alvin walks through a national park. While walking, he sees the beauty of the nature around him. He also sees how many plants show very complex structures and how animals have traits that are well adapted to their environment. After noting all of this, he forms the belief that nature (with all plants and animals included) is designed by God.

Alvin forms the belief that God designed nature. His belief is produced by the process we discussed in section 2. His belief can be true or not. If his belief is false, his belief is evidently not safe. If his belief is true and nature is in fact designed by God, his belief is safe if, and only if, he would not have falsely believed so in most nearby worlds. It appears, however, that he would have done so since there are nearby worlds where nature was not designed by God and where the belief-forming process will still produce the belief that God designed nature. One such nearby world is a world where nature, with all its complexities, arose by strictly naturalistic means. Let us call this world 'world X'. Simon Blackburn describes such a world:

Science teaches that the cosmos is some fifteen billion years old, almost unimaginably huge, and governed by natural laws that will compel its extinction in some billions more years, although long before that the Earth and the solar system will have been destroyed by the heat death of the sun. Human beings occupy an infinitesimally small fraction of space and time, on the edge of one galaxy among a hundred thousand million or so galaxies. We evolved only because of a number of cosmic accidents, including the extinction of the dinosaurs some sixty-five million years ago. Nature shows us no particular favors: we get

parasites and diseases and we die, and we are not all that nice to each other. True, we are moderately clever, but our efforts to use our intelligence to make things better for ourselves quite often backfire, and they may do so spectacularly in the near future, from some combination of manmade military, environmental, or genetic disasters [1, p. 29].

Blackburn claims that his description matches the actual world. To assess the safety we assume that Alvin's belief is true and thus that Blackburn's description is false. If we assume that there is a God who designed nature, world X is at least possible. Modal reasoning over God's existence suffers from well-known problems because God is often considered a necessary being. Necessary existence entails that God exists in every possible world, if he exists. This need not be a problem for us. Even if God exists (which we assumed here), it is not necessary true that God designed nature. There is thus a possible world in which God exists and nature arose from strictly naturalistic processes like described by Blackburn. In that world (or those worlds) God could even still have fine-tuned the physical constants. All we need is the possibility of a world where God did not design nature on earth as Alvin believed.

An obvious counterargument is that world X is far removed from the actual world (still assuming that in the actual world nature was designed by God). World X would differ greatly because in it all of nature arose gradually by cosmic accidents and naturalistic evolution while in the actual world nature arose through an act of design by God. Against this counterargument I argue that both worlds are not far apart. Today many theists accept the Darwinian theory of evolution and accept that it can explain order in nature. They usually accept that the theory is naturalistic and can thus explain order in nature without any reference to God.¹⁷ They add to the naturalistic theory that God is the structuring cause of evolution. The only difference between world X and a world where God is the structuring cause of evolution is what drove the evolutionary process. In world X, evolution is driven by coincidences and in the other world by God.

Since only one factor needs to be different between the world Alvin inhabits and world x, there are many nearby possible worlds to Alvin's where his belief is false. It is therefore clear that his belief is not safe.

7. Criticisms

Jeroen de Ridder argues that there is no nearby possible world in which perceiving design will produce false beliefs in cases like Alvin's. He writes:

Classical theists (...) hold that there wouldn't even have been a universe, let alone evolved intelligent life, were it not for God's creating and sustaining activity. Moreover, proponents of design discourse are also unlikely to grant the more specific assumption that unguided evolution will lead to anything like intelligent beings such as humans. So someone who wants to employ the above line of reasoning to show that there is an undercutting defeater for design beliefs faces the burden of arguing that unguided evolution could produce human beings and, even worse, the burden of arguing that a naturalistic account of the origins of the universe is plausible. Such claims are typically taken for granted by staunch evolutionists and naturalists, but it should be clear that assuming them in the current discussion about the epistemic status of design beliefs begs the question [5].

Like we did, De Ridder's counterargument assumes that there is a designer who designed nature. With this in mind, his claim implies that there is no nearby world with human beings that was not designed by God. We noted above that many theists accept that Darwinian processes can produce nature that is

complex and seems ordered without the need for a designer like God. Being theists, they add that God is the structuring cause of evolution and therefore do not claim that nature arose by naturalistic processes alone in the actual world. Since they acknowledge that evolution can occur naturalistically, they admit that nature with order and intelligent human beings without God as their causes is possible. Claiming that such a world is *possible* does not beg the question against the epistemic status of design beliefs. It would beg the question if one claims that such a world is *actual*. Contrary to De Ridder, it also seems that many proponents of design discourse would acknowledge that unguided evolution *can* produce intelligent beings like humans. Evolutionary biologists argue that the human brain gradually increased in size over millions of years whereby humans became more intelligent. An explanation of how human intelligence arose in terms of gradual evolution of their brains does not refer to God or anything supernatural and is therefore also naturalistic.

Another criticism De Ridder suggests is that we lack sufficient data on which inputs lead to design beliefs and how design beliefs are produced.¹⁸ It could be argued that we lack a clear view of perceiving design and can therefore not assess whether it will produce false beliefs in nearby worlds. The criticism has no force if we restrict the range of possible worlds for assessing safety to worlds in which the subject, her belief-forming process, and the input that leads to the belief in question (i.e. beauty and complexity in nature) remain fixed. We have sufficient data to claim that in most of these worlds, the subject will form design beliefs after seeing beauty and complexity. It seems as if people will often form design beliefs if the perceived beauty and complexity were not caused by supernatural design.

8. Concluding Remarks

In this paper I argued that many design beliefs are not safe. I argued that recent scientific study shows that people easily come to hold false design beliefs. This implies that belief in a creator God formed in a non-inferential way is not safe because there are many nearby worlds in which people will falsely believe that God designed nature.

We noted in section 2 that Ratzsch suggests that many design arguments depend on non-inferentially perceiving design. If this is the case, these arguments might lose some of their force if perceiving design is unsafe. I raised doubts whether all design arguments indeed depend on non-inferentially perceiving design. My conclusion suggests that the more arguments depend on non-inferentially perceiving design, the more they are tainted by the unsafety of design beliefs that are formed in this way. More complex design arguments, like some versions of the fine-tuning argument, will likely not be harmed. More intuitive arguments, like William Paley's analogical argument, will likely be harmed more.

My argument has important ramifications for many common sense design beliefs. It is very likely that many common people form their belief that there is a designer God in a non-inferential way as described by Ratzsch. My argument shows that their beliefs do not constitute knowledge. Subjects in this situation can still bolster their design beliefs by looking for additional evidence or reasons.

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Notes

1. Design arguments are sometimes called ‘teleological arguments.’
2. According to Ratzsch’s line of reasoning, it is problematic to call it an ‘argument.’ Elsewhere, Ratzsch’s line of reasoning is ranked under the teleological arguments [27]. I will refer to it as an argument as well.
3. Ratzsch provides examples of such experiences from the writings of notable scientists like Charles Darwin and Francis Crick.
4. Ratzsch refers to Thomas Reid’s book *inquiry into the human mind* [28].
5. Ratzsch gives William Dembski’s argument as example [7]. He notes that Dembski writes that identifying patterns and information for eliminating chance needs *insight*. Dembski adds that the logic of discovery at work in this insight is largely a mystery. Ratzsch suggests that the way people perceive design could explain this mystery [26].
6. According to Ratzsch, Reid even claims subjects *know* minds through their effects and signs [26]. I return to this point below
7. Other quotes of Reid also strongly suggest that perceiving design can lead to knowledge of design according to Ratzsch. He writes: “How do I *know* that any man of my acquaintance has understanding? ...I see only certain effects, which my judgment leads me to conclude to be marks and tokens of it.” ([28] quoted by [26] emphasis added).
8. Plantinga uses the term ‘design discourse’ instead of ‘perceiving design.’ For reasons of clarity I use Ratzsch’s term.
9. Plantinga famously argues that belief in God could be a proper basic belief. He argues here that criteria for proper basicity are inductive. He claims they should be “argued to and tested by a relevant set of examples” [20].
10. Ryan Nichols and Gideon Yaffe give a good overview of Thomas Reid’s philosophy and his view of common sense [16]. My discussion of Reid’s views on common sense is drawn from their overview.
11. As we noted above, defenders of design arguments argue that there is a designer. Others argue that there is no designer (see for example: [17], [19]).
12. Influential versions of the safety condition for knowledge have been defended by Ernest Sosa [9], Timothy Williamson [29], [24]. My discussion of the safety condition is based on Dani Rabinowitz overview [25]. I do not discuss problems for the safety account, see: [25], [3] and proceed as if the account is true.
13. Greco and Williamson do not explicitly stress that an assessment of safety requires looking at nearby worlds where the belief is produced by the same belief-forming process. Pritchard does when he writes: “S’s belief is safe if and only if in most nearby possible worlds in which S continues to form her belief about the target proposition *in the same way* as in the actual world, and in all very close nearby possible worlds in which S continues to form her belief about the target proposition in the same way as in the actual world, the belief continues to be true” [23].
14. Rabinowitz uses the term ‘method’ instead of ‘belief-forming process.’ [25].
15. Rabinowitz also makes a distinction between internal and external belief-forming processes. Processes are internal when they are wholly dependent on the subject’s constitution; they are external when they are not. I do not discuss the distinction at length since the process under discussion, perceiving design, is obviously external. The process refers to apparent order or complexity that is perceived as design. This factor is clearly external to the subject.
16. It should be noted that Williamson does not analyse ‘knowledge’ in terms of safety. He does discuss the safety condition at length.
17. A minority rejects this idea and claims that some complexities require reference to a designer. Their position is known as ‘intelligent design’ (see for example [6]).
18. De Ridder writes: “[W]e don’t know exactly which inputs produce design beliefs as outputs or how inputs are converted into outputs” [5].