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Plantinga's Innocent Assumption: Self-Defeating Naturalism, and Churchland's Response

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Abstract

Alvin Plantinga's Evolutionary Argument Against Naturalism argues that given the story of biological evolution and naturalism, we wouldn't expect our cognitive mechanisms to be reliable, or that the probability of any given belief being true is very low. Given that our beliefs are generated by our cognitive mechanisms we have a defeater for all of our beliefs which include both evolution and naturalism. Paul Churchland responded by arguing that it is not our native cognitive faculties that justify our beliefs of evolution and naturalism, but the faculties provided to us by the sciences through enhanced evaluation techniques and artificial sensory modalities. Plantinga's "innocent assumption" is that the theory of evolution and metaphysical naturalism are derived from our native cognitive systems alone, which undermines his entire argument. In this paper, I will argue that Churchland's response is successful in defeating the conclusion of Plantinga's argument in regards to biological evolution, and consider whether or not Churchland's response is adequate in defense of philosophical naturalism. Finally, I will examine Churchland's alternate proposal of representation as a map of possible experiences, and consider the consequences of such a theory in regards to the EAAN.

Introduction

Alvin Plantinga's Evolutionary Argument Against Naturalism argues that given the story of biological evolution and naturalism, we wouldn't expect our cognitive mechanisms to be reliable, or that the probability of any given belief being true is very low. Given that our beliefs are generated by our cognitive mechanisms we have a defeater for all of our beliefs which include both evolution and naturalism. Paul Churchland responded by arguing that it is not our native cognitive faculties that justify our beliefs of evolution and naturalism, but the faculties provided to us by the sciences through enhanced evaluation techniques and artificial sensory modalities. Plantinga's "innocent assumption" is that the theory of evolution and metaphysical naturalism are derived from our native cognitive systems alone, which undermines his entire argument. In this paper, I will argue that Churchland's response is successful in defeating the conclusion of Plantinga's argument in regards to biological evolution, and consider whether or not Churchland's response is adequate in defense of philosophical naturalism. Finally, I will examine Churchland's alternate proposal of representation as a map of possible experiences, and consider the consequences of such a theory in regards to the EAAN.

Plantinga's Evolutionary Argument Against Naturalism (EAAN)

The most recent version of Plantinga's EAAN appears in "Against Naturalism," a chapter in his book *Knowledge of God* (2008). Plantinga argues that given the state of modern naturalism, we can now

posit that neuronal structures account for propositional belief, and that it can do so in one of two ways: beliefs can supervene on the neural structures (supervenience), or that beliefs can be reduced to neural structures (reductionism). While he fleshes out both naturalist accounts individually, the same general concerns hold for each account of neural structures accounting for belief content.

Plantinga makes a useful distinction between the neurons and neuron connections involved in belief formation which he calls neurophysiological properties (NP properties), and the content of those belief forming mechanisms. So, the physical structures that underlie my belief ‘there is a saber-tooth tiger in the bushes’ including neurons n and neural connections n^* are the NP properties, while “there is a saber-tooth tiger in the bushes” is the content of my belief. Under metaphysical naturalism, the NP properties are logically and causally sufficient for the content of the belief.

Given the fact of biological evolution, Plantinga wonders about the probability of the content of any belief being true, given that the NP properties would have arisen due to their value in augmenting survival and increasing the evolutionary fitness of the organism, rather than their ability to ascertain the truth. One might wonder if this correlation between NP properties and survival would increase the likelihood of the content being produced by those NP properties being true, as organisms that more closely grasp “truth” would be better able to survive. Plantinga argues that is crucially important to see that the answer to this question is “NO.”

The neuronal structure has NP properties such that it sends signals to muscles or glands, causing adaptive behavior such as fleeing from a rustle in the bushes. These NP properties are logically and causally sufficient for the *content* of the belief as well. While the NP properties cause behavior that is beneficial for adaptation (which is why they are selected for), Plantinga argues that this has no bearing on whether or not the content given by the NP properties is true. We might call evolution a “truth-indifferent system,” meaning that the selection pressures exerted by the evolutionary process are not concerned with “truth,” but simply biological success. In the first version of this argument found in *Warrant and Proper Function*, he quotes Patricia Churchland to drive home this point:

A nervous system enables the organism to succeed in the four F’s: feeding, fleeing, fighting, and reproducing. ... A fancier style of representing [the external world] is advantageous so long as it is geared to the organism’s way of life and enhances the organism’s chances of survival. Truth, whatever that is, definitely takes the hindmost. (218)

More formally, the argument can be put as follows: $P(R/N\&E)$ is low, where R is the reliability of human cognitive faculties, N is metaphysical naturalism, and E is biological evolution. In order for a system to be reliable, it must systematically produce more true beliefs than it produces false beliefs. If Plantinga’s argument is successful, it should lead us to conclude that P is exceptionally low, and furthermore that we have insufficient warrant for thinking that any given belief content is *true* given naturalism and evolution.

Plantinga argues that this conclusion serves as a defeater for R , as we can see the probability of our beliefs being true given naturalism and evolution is exceedingly low. Plantinga points out that if we accept this, our reasoning becomes circular: if our reliability is in question, we can’t depend upon our own reasoning in order to determine whether we are correct or not. As Plantinga points out, however,

we naturally assume R to be true and are perfectly rational in doing so. As usual, Plantingian wit says it best: “You might wind up in a care facility for believing that you are Napoleon, but not for believing your cognitive faculties are functioning reliably” (44). This does not mean that we cannot acquire a defeater for R . Plantinga channels Goldman and his barn facsimile example: if we are driving through Wisconsin farm land and see a fine barn, we form the belief B : *now that’s a fine barn!* We form this belief *basically*, that is, we form this belief without inference and evidence from other propositions. However, we might be told by a local Wisconsinite that the farmland we are driving through is full of barn facsimiles that are indistinguishable from real barns, which the locals have put up in order to make themselves appear prosperous. If we believe what we are told by the defecting citizen, then we have a defeater for B , even though it is perfectly rational to hold B basically. We can still acquire a defeater for R in the same way that we can acquire a defeater for B even though both beliefs are perfectly rational to be held basically.

If we indeed we have a defeater for R , then we also have a defeater for all our beliefs, as they are all generated by our cognitive faculties. If I believe E (biological evolution) and N (metaphysical naturalism), and I also conclude that the probability of R given $E\&N$ is low, then I have a defeater for each of those beliefs and more importantly, all of the beliefs which are generated by $E\&N$. Plantinga argues that since all of our beliefs are able to be defeated (since all beliefs are generated by $E\&N$), we can conclude that evolutionary naturalism is epistemologically self-defeating.

Limitations on Human Reliability & Empirical Considerations

Many philosophers fond of evolutionary naturalism have fought to build a bridge between human reliability and the process of evolution, attempting to raise $P(R/N\&E)$. Given the research on this issue in the cognitive sciences, it seems the prospects for success of this approach are grim. If Plantinga’s assertion is correct, we would expect misbelief to be rampant among our cognitive mechanisms, and there is a lot of empirical evidence to suggest that this is the case.

There are additional concerns that we might introduce to buttress Plantinga’s case. We have limited sensory capacities, limited intellectual capabilities, and a limited timeframe from which we can investigate the universe. The history of explanatory ideologies can vouch for our unreliability in these areas. It’s difficult to hold a 14th century European epistemically culpable for developing a theory of the Four Humors to help explain the Black Death plague. Not only did they not have the proper sensory modalities to investigate the spread of disease, but they lacked the theoretical backdrop (germ theory, sanitation, etc.) that would have provided a reasonable manner in which to pursue that investigation. In this instance, our native cognitive systems have failed us in acquainting ourselves with truth.

Empirical cognitive research also gives us a perspective on how unreliable our native cognitive systems are. Research from Nisbett & Wilson (1977) casts doubt upon our ability to discern, track, and acknowledge the contents of our beliefs. Often subtle environmental changes will greatly influence the outcome of our decision, even when we are completely oblivious to its effects. In one experiment, shoppers were choosing between three articles of clothing on a given display. No matter what garment, color, or fabric was on the right-most side, those involved in the experiment showed an overwhelming right-handed bias. (Nisbett & Wilson 243) When asked why they chose the garment that they chose, shoppers generated fabrications like “I really liked the fabric” or “it had the nicest color,” reasons that completely left out the fact that the garment was on the right hand side. It seems as though the

propositional belief statement: “I chose this garment because it was red” clearly did not align with the reality: “I chose this garment because it was on the right-hand side,” since their personal account completely ignored the underlying bias. The rest of their landmark study showcases a number of experiments which indicate that many of these belief-forming processes happen at a level which we are not consciously aware of, which casts doubt upon our reliability.

This slippery nature of content and the process of content formation adds to Plantinga’s doubts about our reliability. Given the truth-indifferent manner of natural selection coupled with empirical evidence confirming our unreliability, the argument put forth by Plantinga holds up to empirical scrutiny, and in a lot of ways is confirmed by research.

Plantinga’s Innocent Assumption: Churchland’s Response

Paul Churchland’s *Is Evolutionary Naturalism Epistemologically Self-Defeating?* eschews the path taken by most philosophers and instead brings to our attention a hidden assumption in Plantinga’s argument. Churchland agrees with Plantinga’s “justly deflationary estimation of our human cognitive credentials” and does not seek to give a defense in order to raise the probability of P(R/E&N). In fact, Churchland acknowledges that Plantinga’s argument holds muster, because as he points out, theories aren’t the units of natural selection - genes are, and that natural selection has no interest in truth, only the relative success of reproduction.

Instead, Churchland’s thesis is that Plantinga’s argument “innocently assumes the ‘truth-tracking character’ of our native cognitive mechanisms is the only possible or available source of rational warrant or justification for evolutionary theory” (136). He astutely points out that this ignores the artificial mechanisms for generating theories and testing them which are encapsulated by the procedures and institutions of modern science. The mechanisms that science utilizes are mostly alien to the biological brain, and provide more resources than our native cognitive systems can by themselves for the processes of creating and evaluating theories about our external environment.

Science as an institution improves upon our native cognitive mechanisms in two different manners: sophisticated techniques of rational evaluation, and enhanced sensory modalities. These two important differences between the institution of science and our cognitive faculties gives us a substantial reason to trust the fruit of scientific investigation over our native belief-forming mechanisms.

The first important difference between science and our native cognitive mechanisms is that, in science, we have developed and honed sophisticated techniques by which we can hold our theories accountable through rational evaluation. We can determine the mathematical and logical implications generated from the theory and see if they match our experimental results. The techniques and procedures involved in designing and executing an experiment help us avoid bias from the scientist performing the experiment. The critical evaluation from the scientific community along with the attempts to replicate the findings help to find mistakes in results or in experimental procedure. Science also provides us with a way of evaluating the consistency of the new theory against the backdrop of previous theoretical institutions (which science is continually vetting for accuracy) and through the success of its prediction of future discoveries.

Artificial sensory modalities are another way in which science improves upon the reliability of our native cognitive mechanisms. We use telescopes (radio, X-ray, gamma ray, etc.) to help us observe the activities of the large, and we use microscopes to help us observe the very small. We can study ice cores, radioactive dating, and other means to study the ancient past. We can use a battery of chemical tests to examine the exact components of a given substance and help us determine the quantity and potency of each element. Given only our natural cognitive systems, all of these avenues of exploration and experimentation remain hidden to us by virtue of our system's inadequacy to properly explore them.

These two improvements give science a significant advantage in theory generation and theory evaluation over our native cognitive faculties alone. Since the theory of biological evolution was generated and evaluated by science, we do not need to raise doubt about its veracity on the basis of the unreliable cognitive systems of human beings. If Plantinga wishes to call into question those beliefs, he must also assert the unreliability of scientific investigation, rather than merely asserting our native systems to be unreliable.

Does the Success of Science Entail Metaphysical Naturalism?

Those who are sympathetic to Plantinga's mode of argument may point out that buttressing belief in evolutionary theory is only half of the argument. Scientific inquiry may provide a foundation for accepting evolutionary theory, but it does not seem to offer the same consolation for naturalism. In fact, to ask science to provide a justification for metaphysical naturalism is perhaps impossible: as in many ways we must assume metaphysical naturalism in order to conduct scientific investigation. We cannot empirically demonstrate that metaphysical naturalism is true. Given Plantinga's original argument, we still have a defeater for *N* and naturalism remains epistemologically self-defeating.

Barbara Forrest has considered the relationship between the success of scientific inquiry (methodological naturalism) and metaphysical naturalism (Forrest 2000): she argues that the relationship between methodological naturalism and philosophical naturalism is that the latter is the only reasonable conclusion of the former. More explicitly: once we accept methodological naturalism, accepting metaphysical (or 'philosophical') naturalism is the only sensible response, while accepting a supernatural thesis remains a mere logical possibility. She gives us four reasons for thinking so: (1) the demonstrated success of methodological naturalism, (2) the massive amount of knowledge gained by it, (3) the lack of method or epistemology for the supernatural, and (4) the subsequent lack of evidence for the supernatural.

The force of Forrest's argument is captured by the historical success of scientific investigation filling in the gaps that supernatural explanations were historically meant to explain. We no longer need demonology to explain how diseases spread, we no longer understand the Bubonic plague in terms of the Four Humors, and we certainly do not need to posit the existence of phlogiston to explain how things catch fire. Dennett's imaginary vitalist (Dennett 1996) is relevant here also: we need not theorize about an "flam vital" to explain a perceived gap in the naturalist account of what it means to be living.

We can also see the failure of these supernatural explanations that Forrest is concerned with in regard to reasons (3) and (4). There was no successful epistemological approach that helped us predict and alleviate disease through an understanding of Demonology. There is no epistemology of the Greek gods

and certainly no evidence for the actual existence of Hades or Athena. These primitive explanations of natural phenomena are “filled-in” by scientific investigation and are rendered useless as explanatory tools.

We might consider the parallel at work in respect to Plantinga’s argument. Plantinga’s proposed solution to the problem posed by the EAAN is the existence of an *immaterial self*, that is a self which is apart from nature but still manages to interact causally with the brain in order to receive sensory input, evaluate its environment, and make decisions. Plantinga suspects that given theism, it follows that God would have created this self “in such a way” that most of our beliefs would be true.

But Plantinga’s alternate account of thought fails to provide an epistemological approach by which we can properly investigate the phenomena of thought, or the properties of immaterial selves (3), and moreover fails to provide evidence, outside of naturalism’s proposed failure, for why we should accept it as true (4). Instead, we are relegated to understanding thought as a *basic activity* of immaterial selves, similar to the relationship between an electron and its spin. According to Plantinga, we can no more sensibly ask “How does an electron have spin?” than we can ask “How does an immaterial self think?” While these considerations themselves don’t render Plantinga’s view false, if we examine the historical success rate of supernatural theses’ explanatory force, we would be hard-pressed to find a reason that the probability of success for this particular supernatural theory will be any higher than those of antiquity.

Understanding Representation as a Map

Churchland’s article concludes with an alternative explanation of cognitive representation of external reality that casts light on how pre-linguaformal schemes of representation might differ from the conventional view that Plantinga assumes in his binary evaluation of belief contents. Churchland envisions these pre-linguaformal schemes of representations as “maps” rather than a system that generates propositional beliefs. Our representations are “roughly accurate *partial* portrayals of the *practical* environment in which the creature must make its way” (Churchland 140, emphasis Churchland’s).

This would significantly change the frame of this discussion, as Plantinga’s estimation of our reliability is contingent upon the binary nature of propositional contents, as either our belief contents are true or false and do not vary by degrees of accuracy. Even though a map still achieves representational success by displaying similarities between its own internal structure and the objective domain it portrays, it can display different degrees of success and failure and need not be strictly true or strictly false.

If we understand our cognitive representations as maps that display the features of a given environment, this may help us understand a perspective by which (perhaps indirectly) evolutionary pressures will favor more accurate cognitive maps. For instance, if we take Plantinga’s example of the propositional belief “*there is a sabertooth tiger in the bushes*” and examine it under the assumption that representation operates as a map, the evolutionary success of more accurate representations becomes much easier to imagine. Rather than merely being true or false, we would find that perhaps our representation gives us a rough portrayal of “*there is something in the bushes*” that allows us to succeed in our environment. It may not be an actual sabertooth tiger or even a predator of any kind, but

the response engendered in us by this scheme of representation was a key component in ensuring our survival and the evolutionary success of our representative “map.”

A rustle in the bushes isn’t formulated as a proposition in our awareness, but instead prompts a response by our sympathetic nervous system that mobilizes our “flight or fight response” which in turn causes us to feel fear, agitation, or nervousness. When we express our anxieties propositionally, (i.e. *I thought there might be a sabertooth tiger in the bushes!*) we are improperly capturing how the representation is formulated within our own cognitive faculties. While Plantinga is perfectly correct in pointing out that the propositional content is likely to be mistaken, he is missing the underlying reality of the situation: our representation shouldn’t be thought of as *propositional*, but should be understood as a *map of the practical environment in which we inhabit*.

While this suggestion does not give us a claim to Truth as Plantinga might be after, it does explain how human beings can manage to form fairly accurate theories about the practical environment which encompasses our domain of epistemic reliability. If we acknowledge that our maps are accurate portrayals of certain domains, propositions such as “strawberries are red” and “that sabertooth tiger is faster than I am, and even if I run away it will catch me” would seem to be candidates for those such domains, while the theory of biological evolution and natural selection would almost certainly lie outside of our native cognitive systems’ jurisdiction.

This scheme of representation also explains why theories derived from our native cognitive systems fail at accurately depicting phenomena outside of our domain. Our intellectual history in this regard is a litany of errors (phlogiston, humor theory, Demonology, etc.), as these domains lay outside the purview of our representational maps, and we are ill-equipped to properly understand them. Only with the proper enhancements by the institution of science can we properly orient ourselves in order to fruitfully investigate them.

If understanding our cognition as a feature-space map is an accurate depiction, Plantinga’s formation of reliability seems to be too stringent: you would not judge the accuracy of a map by declaring it either “true” or “false,” instead one would judge a map by how well it represents objective reality. Our maps are rather exceptional at judging various features of reality, such as the color of strawberries or the relative speed of a sabertooth tiger, as these domains lie squarely in our practical environment and would often have significant effect on our evolutionary success.

Alternatively, we can see how badly we perform when generating theories about prospects outside of our practical environment. Churchland cites “the compulsive Animism that dominated primitive human cultures, the celebrated Seven Days of Creation, and the Invading Demon theory of disease” (Churchland 139) as theories that you would expect to be generated by brains that were selected for not on the basis of theory-generation but on their ability to practically navigate their environment. The failed theories mentioned by Churchland would be better constructed and evaluated by the institution of science, as they lie outside of the practical environment in which our reliability resides.

If we can properly understand some of our propositional beliefs as being within the domain of our reliability, it makes sense for us to err far less when talking about the color of strawberries than when we postulate about the creation of the universe. Churchland’s recasting of representation as a map undercuts the severity of Plantinga’s propositional understanding of content, by showing that while our

representative mechanisms do not necessarily contain Truth, they may in fact approximate it. This understanding allows us to imagine how human beings may in fact have a great deal of reliability about a great deal of propositions even in a naturalistic account of the universe.

Conclusion

We have explored Plantinga's most recent formulation of the EAAN, considered relevant empirical research, and concluded that Plantinga's assertion that our native cognitive functions are unreliable is in fact a persuasive argument. His assumption that we derive evolution and naturalism from our native cognitive faculties alone, however, is mistaken. This "innocent assumption" unravels his argument, as the formation of beliefs in evolutionary naturalism are not generated and evaluated by our cognitive systems alone, but are instead generated and consequently evaluated by the institution of science. Finally, we considered an alternative way of understanding representation and considered the ramifications of accepting the alternative method in the context of the EAAN and propositional evaluations of truth. If we understand representation as a "map," we can see why Plantinga's evaluation of reliability may be too stringent for our primitive systems, and can reconstruct an account of reliability that properly accounts for the evolutionary success of more accurate representations of our practical environment.

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