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[16] Evolution and Epistemology

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DARWIN IN PHILOSOPHY

0. Outline

1. The 'Evolutionary Argument Against Naturalism' (ctd.)
2. Responding to the EAAN
 - 2.1. Estimating $\Pr(R|E\&N)$
 - 2.2. *Would R be defeated?*

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DARWIN IN PHILOSOPHY

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1. The 'Evolutionary Argument Against Naturalism' (ctd.)

- Last time:
 - Sketch of the EAAN
 - Beginning of Plantinga's defense of premise [1]:
 - His division of the space of possibilities into: semantic epiphenomenalism (P_1), maladaptive semantic non-epiphenomenalism (P_2) and adaptive semantic non-epiphenomenalism (P_3).
 - His discounting of P_2 on the basis of a negligible value of $\Pr(P_2 | E\&N)$.
 - Plantinga's reason for claiming that $\Pr(P_1 | E\&N) =$ fairly high.
 - Next step: Plantinga argues that $\Pr(R | P_1\&E\&N) =$ low.

1. The 'Evolutionary Argument Against Naturalism' (ctd.)

- His rationale for this (Plantinga [2002]):
 - [if semantic properties] aren't involved in the causal chain leading to behaviour, then [they] will be invisible to natural selection.'
- He then argues that $\Pr(P_3 | E\&N) =$ fairly low.
- His rationale for this: although $\Pr(P_2 | E\&N) =$ negligible, $\Pr(P_1 | E\&N) =$ fairly high.
- Finally, he argues that $\Pr(R | P_3\&E\&N) =$ 'at best moderately high'.
- Here he seems to have two supporting intuition-pumps...
- First of all: it would seem that, for any single adaptive action that a set of true beliefs could produce, there are innumerable many sets of false beliefs producing the same result.

1. The 'Evolutionary Argument Against Naturalism' (ctd.)

- Support:

Tiger: 'Suppose Paul is a prehistoric hominid; a hungry tiger approaches. Fleeing is perhaps the most appropriate behavior: ...this behavior could be produced by a large number of different belief desire pairs.' 'Perhaps Paul very much likes being eaten, but when he sees a tiger always runs off looking for a better prospect, because he thinks it unlikely that the tiger he sees will eat him. This will get his body parts in the right place so far as survival is concerned, without involving much by way of true belief...'
(Plantinga [2002:8])

- But Plantinga fairly immediately has misgivings regarding the probative value of this case.

1. The 'Evolutionary Argument Against Naturalism' (ctd.)

- He thinks that it doesn't show that, in general, 'most of [one's] beliefs could be false but nonetheless ... fitness-enhancing' (do you agree?).

- So he offers what he thinks is a better consideration:

Panpsychist: 'Paul is a sort of early Leibnizian and thinks everything is conscious (and suppose that is false); furthermore, his ways of referring to things all involve definite descriptions that entail consciousness, so that all of his beliefs are of the form 'That so-and-so conscious being is such-and-such...' But this would be entirely compatible with his beliefs being adaptive; so it is clear... that there would be many ways in which Paul's beliefs could be for the most part false, but adaptive nonetheless.' (Plantinga [2002:9])

1. The 'Evolutionary Argument Against Naturalism' (ctd.)

- So, to recap, according to Plantinga:
 $\Pr(R | P_1 \& E \& N) = \text{low}$, $\Pr(P_1 | E \& N) = \text{fairly high}$,
 $\Pr(R | P_3 \& E \& N) = \text{'at best moderately high'}$ and
 $\Pr(P_3 | E \& N) = \text{fairly low}$.
- The upshot: $\Pr(R | E \& N) = \text{pretty low}$.
- A little later however, Plantinga suggests that these estimates are both 'imprecise and poorly grounded' and that perhaps the appropriate attitude to take towards $\Pr(R | E \& N)$ is one of *agnosticism* (e.g. Plantinga [2002:10]).
- Final alleged upshot of Plantinga's discussion: $\Pr(R | E \& N)$ is low or inscrutable.
- There is a *lot* to say here.

2. Responding to the EAAN

- I'll discuss:
 - Is it *really* the case that we should believe that $\Pr(R|E \& N) = \text{low}$ or else suspend judgment regarding its value?
 - If we did believe that $\Pr(R|E \& N) = \text{low}$ or else suspended judgment regarding its value, *would* it then follow that *E&N* is a defeater for *R*?
- Other possible issues include:
 - If one has a defeater for *R*, *does* one thereby have a defeater for the remainder of one's beliefs?
- Note: *whether or not* the argument works out, it raises some interesting issues regarding evolution, truth, rationality and defeat.

2. Responding to the EAAN > 2.1. Estimating $\Pr(R|E\&N)$

- Regarding $\Pr(P_1|E\&N)$ (P_1 = semantic epiphenomenalism), Plantinga argues that if naturalism is true, the following is highly likely to be true:

A given belief would be followed by the same behaviour, were the neurophysiological properties of the belief the same but the belief content different.

and if *this* is true, then epiphenomenalism follows.

- Brief aside: epiphenomenalism arguably doesn't follow.
Say the relevant intentional properties are *identical* with the relevant neurophysiological properties (and hence mental content *is* causally efficacious). Then (i) the antecedent of the counterfactual is *impossible* and hence (ii) the counterfactual is true (on the standard semantics for counterfactuals).

2. Responding to the EAAN > 2.1. Estimating $\Pr(R|E\&N)$

- The problem here: there are a number of naturalistic options either obviously or at least arguably compatible with the causal efficacy of mental content, e.g. mind-brain identity (obviously) and mind-brain supervenience (arguably).
- Plantinga's conclusions regarding $\Pr(P_1|E\&N)$ seem at best underargued.
- Regarding $\Pr(R|E\&N\&P_1)$: Plantinga argued that assuming P_1 , beliefs would be 'invisible' to selection.
- The thought behind this must be that:

If P_1 is true, had a certain believer's belief that B_1 been a belief that B_2 (whilst retaining the same neurophysiological properties N_1), the same behaviour would have followed.

2. Responding to the EAAN > 2.1. Estimating $\Pr(R|E\&N)$

- But of course, if this were true, it still wouldn't be good enough to secure the desired conclusion.
- Plantinga wants: if P_1 , then fitness of B_1 -believers = fitness of B_2 -believers = ... = fitness of B_n -believers.
- But the following is simply *not true* (see lecture 5, section 2):
If it is the case that bearers of T would have the same fitness had they had T^* instead (and been otherwise identical in their further properties), then the fitness of T = the fitness of T^* .
- Mere epiphenomenalism doesn't secure the result he is after: there can be selection *of* certain beliefs whether or not there is selection *for* these.

2. Responding to the EAAN > 2.1. Estimating $\Pr(R|E\&N)$

- It could, for instance, be the case that although
 - (i) had any believer's belief that B_1 been a belief that B_2 (whilst retaining the same neurophysiological properties), the same behaviour would have followed,
 - (ii) in the population at large, B_2 is correlated with neuro. properties N_2 and B_1 with N_1 and, because of this, B_1 -believers and B_2 -believers tend to behave in different ways.
- Mental causation is a red herring here: *correlation* is the relevant issue.
- *Regarding $\Pr(R|E\&N\&P_3)$* : the conclusions that Plantinga draws from his panpsychist case (i.e. that it is possible to be equipped with globally deeply unreliable belief-producing mechanisms without behaving maladaptively) seem challengeable.

2. Responding to the EAAN > 2.1. Estimating $\Pr(R|E\&N)$

- Some possible lines of response (amongst a fair few):
 - Belief is closed under believed entailment (i.e. if $P \models Q$ and $B_S(P \models Q)$, then if $B_S(P)$ then $B_S(Q)$) and hence the panpsychist *also* has a good many true beliefs (beliefs that drop the commitment to consciousness). These beliefs, furthermore, are beliefs whose truth accounts for the success of his actions.
 - By virtue of the very nature of belief, doxastic differences must translate into behavioural differences. Unless the panpsychist's commitment to panpsychism *somehow* translates into behavioural dispositions (and hence runs the risk of making an impact on fitness), he cannot in the first place have the beliefs that Plantinga attributes to him.

2. Responding to the EAAN > 2.1. Estimating $\Pr(R|E\&N)$

- In the final sections of his 1993 chapter Plantinga claims that *even if his argument fails* with respect to establishing the first premise of his argument, he can still make the weaker claim:
 - [1*] We should believe that $\Pr(R^*|E\&N) = \text{low}$, where $R^* =$ Our cognitive faculties are reliable regarding matters with respect to which true beliefs would have been fitness-neutral in our evolutionary past (including philosophy and other abstract academic matters).
- He then suggests that he could rerun the argument as before:
 - [2*] If we believe that $\Pr(R^*|E\&N)$ is low, $E\&N$ becomes an undefeatable defeater for R^* .
 - [3*] An undefeatable defeater for R^* is an undefeatable defeater for $E\&N, \dots$ etc

2. Responding to the EAAN > 2.1. Estimating Pr(R|E&N)

- This is perhaps a somewhat more plausible line to argue, and [1*] does reflect a commonly held view (the view that there is ‘no... close connection between the jungle and the blackboard’ (quoted in Plantinga [1993])).
- Worry: might it not be possible to argue that reliability wrt the domains of evolutionary theory and metaphysics of mind could just follow from reliability wrt a number of domains relevant to our ancestral practical concerns?
- One last comment on evolution and reliability before moving on.
- Even if it is the case that, with respect to a given domain, true belief is fitter than false belief, it *doesn't follow* that for any two mechanisms S_1 and S_2 for forming beliefs wrt that domain, if S_1 is more reliable than S_2 , then fitness of using $S_1 >$ fitness of using S_2 .

2. Responding to the EAAN > 2.1. Estimating Pr(R|E&N)

- What *is* true is that *other things being equal*, in this situation, if S_1 is more reliable than S_2 , then S_1 is fitter than S_2 .
- But other things needn't be equal: in particular, the structure of the fitness-allocations (i.e. payoffs) makes a huge difference.
- Example
 - Payoff matrix (where true belief is better than false):

	P	$\neg P$
$B(P)$	10	9
$B(\neg P)$	0	10

2. Responding to the EAAN > 2.1. Estimating Pr(R|E&N)

- Joint probability matrix conditional on using S_1 :

	P	$\neg P$
$B(P)$	0.5	0.5
$B(\neg P)$	0	0

- Joint probability matrix conditional on using S_2 :

	P	$\neg P$
$B(P)$	0.2	0
$B(\neg P)$	0.3	0.5

- Fitness: $w_{S_1} = 0.5 \times 10 + 0.5 \times 9 = 9.5 > w_{S_2} = (0.5 + 0.2) \times 10 = 7$

2. Responding to the EAAN > 2.1. Estimating Pr(R|E&N)

- Reliability – i.e. $\Pr(B(P) \& P \vee B(\neg P) \& \neg P)$: $R_{S_2} = 0.2 + 0.5 = 0.7 > R_{S_1} = 0.5$
- So S_1 is *fitter* than S_2 , in spite of being *less reliable*.
- For more on this kind of issue (and some further interesting points of contact with epistemological issues), see Sober's excellent [1994].

2. Responding to the EAAN > 2.2. Would *R* be defeated?

- Would *R* be defeated by *E&N* were one to believe that $\Pr(R | E\&N) = \text{low}$ or suspend judgment wrt its value?
- Fitelson & Sober [2001:421] (Plantinga also cites DePaul, Suppe and Wykstra) suggest that Plantinga's claim to this effect seems to be based on:
 - (DEF): If one holds that $\Pr(Y | X) = \text{low}$ or suspends judgment wrt to its value, then *X* is a defeater for one's belief that *Y*.
- But (DEF) is obviously false...
- Counterexample #1: I believe that my cousin owns an old Nissan (*NISS*). On the basis of this I come to believe that she owns a Japanese car (*JAP*). I hold that $\Pr(\text{NISS} | \text{JAP}) = \text{low}$ but presumably *JAP* is no (rebutting) defeater for *NISS*.

2. Responding to the EAAN > 2.2. Would *R* be defeated?

- Counterexample #2: I believe that special relativity is true (*SPEC*) and, for totally different reasons, that birds can fly (*BIRDS*). I suspend judgment regarding $\Pr(\text{SPEC} | \text{BIRDS})$ but the latter isn't a(n undercutting) defeater for former.
- Plantinga [unpublished] supplements (DEF) with some further requirements, including:
 - (D1): one doesn't rationally believe that the warrant one has for *X* is derivative from the warrant one has for *Y*. (this, for instance, takes care of counterexample #1 above)
- Problem: it turns out that:
 - The complete proposal is still too weak (leaving it open to the worry that, were the proposal to be suitably strengthened, it would entail that *E&N* doesn't defeat *R*)

2. Responding to the EAAN > 2.2. Would *R* be defeated?

- The proposal *already* - via (D1) – arguably entails that *E&N* doesn't defeat *R* (Fitelson & Sober [2001:423]):

Presumably, atheistic evolutionists rationally believe that the warrant they have for *E&N* derives from the warrant they have for *R*.

- Plantinga's final position [2002:239-240]: admits to having no principled account of what make a factor conferring low conditional probability a defeater.

- His best guess seems to be (*I think*):

(**D***): If a proposition “specifying the origin and provenance of our cognitive faculties” confers a low probability on their reliability it constitutes a defeater for a belief in their reliability [2002:240].

2. Responding to the EAAN > 2.2. Would *R* be defeated?

- Worry: if (**D***) is true, can't a similar argument be leveled against anyone, theists included? If not, why not?
- Let *P* = Our cognitive faculties were produced by some mechanism or other.
- Isn't it the case that we should believe that $\Pr(R/P)$ is low or else withhold belief as to its value?
- Isn't it then the case that, according to (**D***), if we do as we should and either believe that $\Pr(R/P)$ is low or else withhold belief as to its value, then *P* is a defeater for *R*, etc..?

Reference

- Fitelson, B. & E. Sober [2001]: 'Plantinga's Probability Arguments against Evolutionary Naturalism', in R. T. Pennock (ed.) *Intelligent Design Creationism and its Critics*. Camb. Mass. MIT Press.
- Plantinga, A. [1993]: *Warrant and Proper Function*. Oxford: OUP.
- Plantinga, A. [2002]: 'Introduction' and 'Reply to Beilby's Cohorts', in J. Beilby (ed.) *Naturalism Defeated? Essays on Plantinga's Evolutionary Argument Against Naturalism*. Ithaca & London: Cornell University Press
- Sober, E. [1994]: 'The Adaptive Advantage of Learning and A Priori Prejudice', in E. Sober *From a Biological Point of View*. Cambridge: Cambridge University Press, 50 - 69.

Next lecture: Seminar on Evolution & Epistemology

- We will be discussing Plantinga's EAAN.