

Has Plantinga Refuted the Historical Argument?

On a subject that hath been so often treated, 'tis impossible to avoid saying many things which have been said before. It may, however, with reason be affirmed, that there still remains, on this subject, great scope for new observations. Besides, it ought to be remember'd, that the evidence of any complex argument depends very much on the order into which the material circumstances are digested, and the manner in which they are display'd.

George Campbell, *A Dissertation on Miracles* (1762)

In his recent book *Warranted Christian Belief*, Alvin Plantinga employs a peculiar argument from the multiplication of probabilities as an objection to a traditional evidentialist approach to the defense of at least some empirical beliefs.¹ The idea is not wholly novel: one form of it appears in Whately's *Elements of Logic*.² But where Whately's treatment is rudimentary and intuitive, Plantinga's "principle of dwindling probabilities" is squarely grounded in the probability calculus.

Plantinga appeals to his principle of dwindling probabilities in the course of a critical examination of Richard Swinburne's historical argument for the truth of Christianity. His purpose is to show that, for this belief at any rate, a Lockean evidentialism fails to underwrite any very exciting conclusion. Although Plantinga is himself most concerned to vindicate Christian belief as reasonable, he does not see the discrediting of the evidentialist approach as a serious problem. Its demise will simply increase the attractiveness of his Reformed model in which God not only inspires the writers of Scripture but also operates directly in the minds of believers through such reliable belief-formation mechanisms as faith and the internal instigation of the Holy Spirit. In this respect Plantinga may be said to acquiesce without irony in Hume's sarcastic conclusion that the truth of Christianity must be sustained by a continued miracle in the mind of any rational person,

¹*Warranted Christian Belief* (New York: Oxford University Press, 2000), pp. 268-80. In subsequent references I will abbreviate the title of this volume as *WCB*.

²See *Elements of Logic*, ninth edition (New York: Sheldon & Co, 1869), pp. 230-1.

since it is contrary to custom and experience.³ But because he views that sort of supernatural intervention as constitutive of human rationality when it comes to these topics, Plantinga rejects Hume's thinly-veiled suggestion that Christian belief is not rational at all.

Plantinga's use of the principle of dwindling probabilities is quite limited; he raises it only in this context and does not mention it elsewhere in the *Warrant* trilogy. Yet it is topic neutral and arises out of a mode of analysis that can be applied to any probabilistic argument. If it can be applied in the manner Plantinga suggests then it represents a skeptical strategy of great power and generality.⁴ It would certainly appear strong enough to call into question many secular historical events for which we have only testimonial evidence, particularly those in which something out of the ordinary occurs, such as Frederick the Great's refusal to take the mill at Sans-Souci from its peasant owner by force. It is therefore worth examining the principle more closely to determine its uses and limitations as well as its impact on the historical argument where Plantinga employs it.

Plantinga's Construal and Critique of Swinburne's Argument

Though it looks formidable when symbolized in the probability calculus, Plantinga's procedure is simple enough. Following — such is his claim — the outline of an argument given by Richard Swinburne,⁵ he starts with our background knowledge *K*, which he defines as “what we

³*An Enquiry Concerning Human Understanding* (LaSalle, IL: Open Court, 1956), p. 145. It is worth noting that Georg Hamann endorsed Hume's scornful description as “orthodoxy and a testimony to the truth from the mouth of an enemy and persecutor,” a comment that had a considerable impact on Kierkegaard. See Walter Lowrie, *A Short Life of Kierkegaard* (Garden City, NY: Doubleday, 1961), pp. 88-9.

⁴Plantinga himself, in personal conversation, has suggested that the principle would apply “in spades” to Lockean evidentialism of the foundationalist sort where higher-level beliefs are inferred from or rendered probable by incorrigible foundations.

⁵*Revelation: from Metaphor to Analogy* (Oxford: Clarendon Press, 1992). See Plantinga, *WCB*, p. 271 n.56.

all or nearly all know or take for granted or firmly believe, or what at any rate those conducting the inquiry know or take for granted or believe.” He next considers the bare theistic claim that

T: God exists

and for the sake of the argument assigns it a probability of at least .9, conditional on K. (“Many will howl with indignation at such a high assignment,” he notes; “let us ignore them for the moment.”⁶) Now consider the probability (always relative to our background) that, given T,

A: God would want to make some sort of revelation of Himself to mankind.

Granting that He would, move on to

B: Jesus’ teachings were such that they could be sensibly interpreted and extrapolated to G, the great claims of the gospel,

where G includes central Christian teachings about sin, the incarnation, the atonement and the general availability of salvation. Supposing K, T, A, and B, consider the likelihood that

C: Jesus rose from the dead.

Now taking K, T, A, B and C together, evaluate the legitimacy of the further step

D: In raising Jesus from the dead, God endorsed his teachings.

Finally, on the basis of K, T, A, B, C and D, consider the probability of the conclusion

E: The extension and extrapolation of Jesus’ teachings to G is true.

Plantinga’s contention is that it is not sufficient to look only at the final step; at each stage the argument is non-deductive and, in consequence, we must consider the possibility of a breakdown in the chain of reasoning at every point. Having a bit of fun, Plantinga suggests the following “generous” probabilities conditional on our background knowledge K:

$P(T|K)$ is at least .9

⁶WCB, p. 275.

$P(A|K \ \& \ T)$ lies in $[.9, 1]$

$P(B|K \ \& \ T \ \& \ A)$ lies in $[.7, .9]$

$P(C|K \ \& \ T \ \& \ A \ \& \ B)$ lies in $[.6, .8]$

$P(D|K \ \& \ T \ \& \ A \ \& \ B \ \& \ C) = .9$

$P(E|K \ \& \ T \ \& \ A \ \& \ B \ \& \ C \ \& \ D)$ lies in $[.7, .9]$

He freely acknowledges that such assignments are in many ways unrealistically precise, but he is willing to grant that where our epistemic evaluations are vaguer, our reasoning is still guided by something like the calculus of probabilities.⁷

What is the most that we are entitled to claim for E as a result of this argument? Plantinga suggests that we should multiply the probabilities together, choosing (in order not to exceed what our evidence shows) the lower boundaries of the intervals when we are unable to assign a precise probability. Now $.9 \times .9 \times .7 \times .6 \times .9 \times .7$ is just a bit over $.21$. He therefore concludes that the most we are entitled to say is that $P(E|K) \geq .21$, which is a rather depressing result to arrive at after all of that work. And since he considers his probability assignments to have erred on the side of generosity, this is if anything an overestimate of the value of the historical argument for the truth of Christianity. “Our background knowledge, historical and otherwise,” Plantinga concludes, “isn’t anywhere nearly sufficient to support serious belief in G.”⁸

Clearly the deflation takes place because we are multiplying numbers that lie between zero and one, and any very long multiplication of such numbers as Plantinga supplies will tend toward

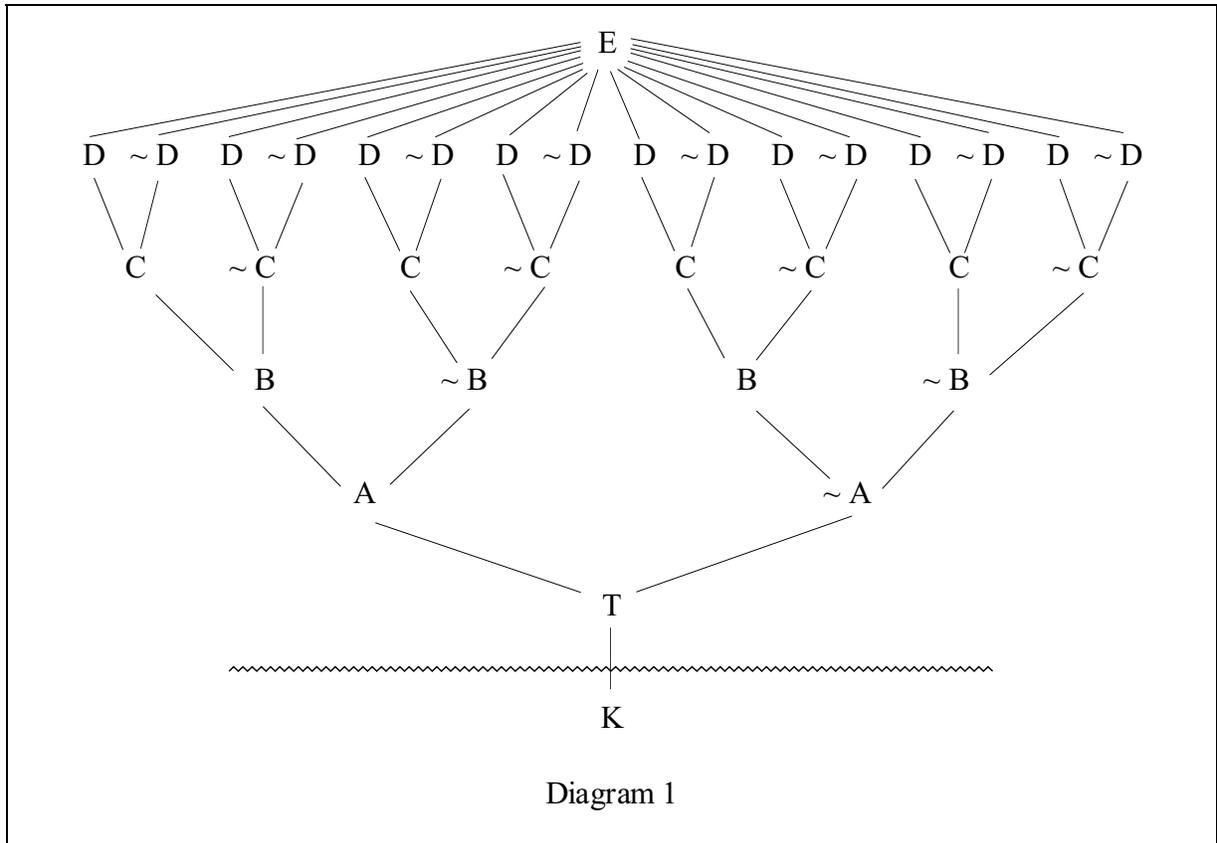
⁷*WCB*, p. 279.

⁸*WCB*, p. 280. Plantinga excludes what we know by “faith or revelation” from the scope of K here, but the structure of the argument makes it plain that primary source records may be included; “revelation” here means something more direct and personal than translations of copies of inspired autographa.

zero. This, in a nutshell, is the principle of dwindling probabilities.

The Probability Lattice

It helps both for exposition and for critique to represent the structure of this line of reasoning with the lattice⁹ in the following diagram:



Each node represents a proposition, and each path from T to E represents a possible way for E to be true on the assumption of T: with A, B, C and D all being true, with A, B and C being true but D false, and so forth. K, below the wavy line, is taken for these purposes as unproblematic.

For each proposition, the portion of the path beneath it represents the set of propositions we need to take into account to calculate its conditional probability. Beneath A on the left we find T

⁹I use the term “lattice” here in an everyday sense in order to have a convenient way to denote the diagram; it is not, of course, a lattice in the sense in which that term is used in mathematics.

and the ubiquitous background K; this reminds us that we are to consider the probability of A given T and K, written $P(A|K \& T)$. When we move up the leftmost branch to C, we must consider its probability given K, T, A and B, and so forth. Each path gives us a probability for E contingent on the lower nodes through which the path passes. Here there are sixteen such paths, corresponding to the binary alternatives at each intermediate point: A, B, C and D may be either true or false irrespective of the others, which gives us sixteen possibilities to consider.¹⁰

To compute $P(E|K)$, we must do two things. First, we multiply the transition probabilities along a given path. For the lefthand path in Fig 1, this amounts to

$$P(T|K) \times P(A|K \& T) \times P(B|K \& T \& A) \times P(C|K \& T \& A \& B) \times P(D|K \& T \& A \& B \& C) \times P(E|K \& T \& A \& B \& C \& D)$$

This lengthy formula makes its appearance in Plantinga's discussion as he is winding up his critique.¹¹ Second, we must repeat the process for all of the other paths leading from K to E. The full value of $P(E|K)$ is the sum of all sixteen of these path probabilities.

The multiplication and summation procedure is perfectly general, but in at least one respect this particular argument is idiosyncratic. Normally we would be interested in the probability of E on our total evidence, and if T is not certain (more precisely, if $P(T|K) < 1$), then we would also have to consider a similar set of paths routed through $\sim T$. But for the present argument this does not matter: since E entails T, $P(E|\sim T) = P(E|K \& \sim T) = 0$. Thus, every path probability for E through $\sim T$ will contain zero as a factor.

Missing Probabilities

¹⁰The analogy with a truth table is obvious: both truth tables and lattices are unobjectionable as organizational devices, but neither gives us any special insight into the structure of an inference. We will return to this last point later.

¹¹WCB, p. 279.

Even a casual glance at the lattice in Diagram 1 reveals a remarkable fact about Plantinga's argument. His calculation involves only the multiplication of successive terms along the lefthand path, but this does not give us $P(E|K)$. The path probabilities from the remaining fifteen paths, none of them negative and plausibly some of them positive, have simply been eliminated from the calculation. To do a calculation omitting these path probabilities is mathematically unobjectionable provided that one expresses the result as an inequality, which Plantinga does. But when the resulting number is interpreted as representing the *most* we are entitled to say about $P(E|K)$, the procedure becomes epistemically suspect. In a long footnote at the end of his most recent book, Richard Swinburne points this out.

[I]f one argues ' p therefore very probably q , q therefore very probably r , r therefore very probably s ' until we get to 'therefore very probably x ', the conclusion may be very improbable given the starting point, because at each step of the argument there is a diminution of probability. That is certainly so, though the crucial word is 'may' because it might be that even if (improbably) not- p , that still made other propositions probable which gave some small degree of probability to x . To get the total probability of x on evidence p , you need to *add* together the probabilities of different routes from p to x , and that may mean the diminution of probability in going from p to x may not be nearly as great as it would be, if you consider only the main route.¹²

Plantinga acknowledges in a footnote that the sort of consideration Swinburne raises here requires him to use the inequality.¹³ What he does not make clear is why the remaining paths can be ignored if our goal is not merely to state a mathematical truism but further to justify claims about how much, or in this case how little, a given line of argument can show.

¹²*The Resurrection of God Incarnate* (Oxford University Press 2003), pp. 215-6. Swinburne's p and x are generic propositional letters that correspond to T and E in Plantinga's formulation of the argument. It appears that Swinburne has made a small slip here, putting "not- p " where he intends something further up the lattice such as "not- q ," since the residual probability of $\sim p$ would not affect $P(x|p)$. But with this minor emendation his criticism is quite correct.

¹³*WCB*, p. 273, n. 62. Some recent work inspired by Plantinga is not so circumspect.

The challenge is to show that Plantinga's inequality, calculated from one path alone, really does represent the most we are entitled to claim about $P(E|K)$. If we grant Plantinga's probability assignments — and this is an issue to which we will have to return later — there are two assumptions strong enough to yield this conclusion. First, it would follow if E entails each of T , A , B , C and D . This is not out of the question in some concatenated chains of reasoning, particularly in mathematics; but those are also the contexts in which we are least in need of guidance from the probability calculus. Granting that E entails T and C , it seems doubtful that it entails D . Perhaps (to indulge for a moment in the sort of speculation Plantinga allows himself throughout his critique of Swinburne's argument) in raising Jesus from the dead God intended to complete His redemption but considered Jesus' teachings to have been sufficiently attested by Jesus' own miracles or by the opening of the heavens at Jesus' baptism. It does not seem reasonable to claim, therefore, that $P(E|K \& T \& A \& B \& C \& \sim D) = 0$.

We can weaken this assumption slightly. Since a path probability will be zero whenever any of the conditional probabilities in the path is zero, it would be sufficient to eliminate the other paths from the calculation if each of them contained some conditional probability of zero. But it seems plausible, on the basis of the sorts of considerations raised above, $P(E|K \& T \& A \& B \& C \& \sim D)$ is not equal to zero. And Plantinga himself has granted, if only *arguendo*, that the remaining conditional probabilities in this path are nonzero, for they are either identical to the lower conditional probabilities along the lefthand path or, in the case of $P(\sim D|K \& T \& A \& B \& C)$, guaranteed to have a non-zero probability in virtue of Plantinga's assignments. So in the context of this particular argument it does not seem that either the strong or the weak version of this assumption holds.

The second assumption that would underwrite Plantinga's claim is that all of the remaining path probabilities, though not demonstrably zero, are inscrutable.¹⁴ Since Plantinga makes free use of intervals in modeling this chain of reasoning, we might choose the utterly uninformative interval $[0, 1]$ to represent an inscrutable probability. In that case, a strict rule of multiplying only lower bounds will yield a zero for every path probability that passes through an inscrutable node.

Here, however, we should like an independent argument for the inscrutability of the relevant conditional probabilities. It is not sufficient to point out that we have no algorithm for assigning probabilities such as, say, $P(E|K \& A \& B \& C \& \sim D)$. As Plantinga has admitted, we rarely have an algorithm for assigning *any* of the probabilities in question; but that fact alone does not make it unreasonable for us to estimate the force of our reasons or to approximate that force with a number or an interval.

For some chains of reasoning there may be a reason to mark certain paths as inscrutable. Conscientious Bayesians have long worried about the likelihood of the "catchall" term in the expanded denominator of Bayes's theorem, $P(E|\sim H)$, when H is some well-articulated scientific hypothesis.¹⁵ Imagine asking Laplace for the probability of the moon's orbital period given that Newton's theory of gravity is *false*. What answer could one expect save an expansive shrug? The problem is that the logical space of alternative theories is often not epistemically well structured:

¹⁴In personal conversation Plantinga has indicated to me that this is the response he favors: the remaining path probabilities are for the most part inscrutable. But see also note 19, below.

¹⁵See, e.g., Abner Shimony, *Search for a Naturalistic World View*, vol. 1 (Cambridge: Cambridge University Press, 1993), who bemoans the fact that the likelihood of the catchall is apt to be "more than ordinarily indefinite" (p. 225). For a subjective Bayesian this is all beside the point: we are free to select any prior probability and likelihood we like, subject only to synchronic coherence. But inscrutability is *never* a problem for subjective Bayesians; and for just that reason, subjective Bayesianism cannot be the refuge of someone who is using the inscrutability defense.

Summing up, Plantinga's inequality $P(E|K) \geq .21$ is merely a lower bound: by itself the inequality says nothing about the rationality of belief in Christian theism. What Plantinga needs to argue is not merely that .21 is a lower bound on E but that it is a *greatest* lower bound,¹⁷ and he is not entitled to that conclusion unless he can show that every other path in the lattice contributes nothing to the probability of E. In his assessment of the historical argument in *WCB*, he has made no attempt to do so; and there is good reason to believe that for the particular alternative path considered above this is actually false. For structural reasons, therefore, Plantinga's application of the principle of dwindling probabilities to the historical argument fails.

Plantinga might try to respond that the other non-zero paths do not contribute very much to $P(E|K)$. This response would require supplementary argument which he does not provide; but if it were successful it would suggest that the critique regarding alternate path probabilities might not make a very significant difference to the probability of the great truths of the gospel. There is, however, a deeper problem with Plantinga's probabilistic representation of the historical argument. To this we now turn.

Inversion and Inference

A curious feature of the argument concerns the relation between T (bare theism) and C (the resurrection of Jesus). In the lattice T appears below C, and one might be forgiven for assuming that this means that T is being used as a premise for C rather than vice versa. Plantinga's own wording strongly suggests this:

Now suppose we try along these lines to construct a case for the probability of G with respect to that background knowledge K. We should first have to find the probability that T

¹⁷I am indebted to Tomoji Shogenji for this incisive formulation of the criticism.

(theism) is true...¹⁸

But this seems to reverse the natural order of inference. Surely many reasonable people who have held T have assigned a very low probability to C, but it is hard to imagine a reasonable person who held C without believing T.

It does not follow that there is anything formally wrong with the use of the lattice given in Diagram 1 to calculate the probability of E. What the inversion does show, however, is that the structure of the lattice does not adequately display the structure of the reasons one might have for E. This is not just a psychological point. Though it seems obvious that for any very lengthy chain of nondeductive inferences we do not in fact, in the course of everyday life, construct a lattice and sum over pathways, that might just be laziness or ineptitude on our part. The point is rather that the lattice *does not represent the structure of the inference at all*. Although the calculation of $P(E|K)$ using the lattice (which is to say, using the theorem on total probability) is readily described as a multi-stage process, the lattice itself represents a synchronic coordination of probabilities rather than a diachronic process involving successive reevaluation of probabilities upon consideration of new evidence.

This point is readily apparent in a trivial example. What is the probability that

O: The earth orbits the sun

on the basis of my background knowledge K? If the relevant probabilities are well defined, I can calculate this relative to a partition — an exclusive and exhaustive disjunction — between

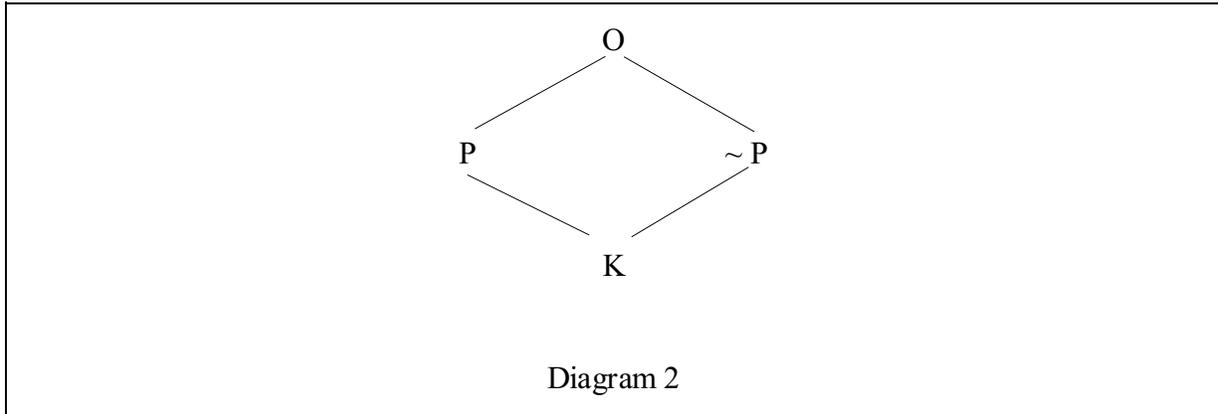
P: At midnight (Eastern Time) on December 31, 2003, there were an odd number of penguins in Antarctica

and its negation. According to the theorem on total probability,

¹⁸WCB, p. 273.

$$P(O|K) = P(P|K) P(O|K \& P) + P(\sim P|K) P(O|K \& \sim P),$$

and this is exactly what I will arrive at if I construct a small lattice and then operate on it according to the procedure outlined earlier, summing over the two path probabilities:



This will in fact give me $P(O|K)$, for a simple reason. Since P is manifestly irrelevant to O ,

$$P(O|K \& P) = P(O|K \& \sim P) = P(O|K)$$

Whatever $P(P|K)$ is, call it r ; then $P(\sim P|K) = (1-r)$, since these two probabilities must sum to 1.

Now we can rewrite the calculation as

$$r P(O|K) + (1-r) P(O|K) = (r + (1 - r)) P(O|K) = P(O|K).$$

No one observing this lattice would be deceived into thinking that I have *inferred* the earth's motion from my reasoned estimation of the probabilities regarding penguin populations. What the lattice does, effectively, is to show how certain probabilities must be coordinated by the theorem on total probability for the sake of probabilistic coherence at any given time. It does not follow that I am inferring the propositions higher in the lattice, even probabilistically, from the propositions nearer to the base.¹⁹

¹⁹Note further that even if the probability of P were inscrutable this would not (on pain of incoherence) affect $P(O|K)$, a fact that restricts still further the utility of Plantinga's skeptical strategy.

The distinction between the probability lattice and the actual structure of an argument helps to illuminate the apparent inversion of T (God exists) and C (Jesus rose from the dead). Mere theism is not for many thoughtful Christians a *premise* for the argument for the resurrection, any more than P is a premise in the argument for O in Diagram 2; and despite what Plantinga says we need not find $P(T|K)$ *first*, before tackling the question of the probability of C.²⁰ We might, so far as the theorem on total probability is concerned, reconstruct the lattice with C below T, since (again by the theorem on total probability)

$$P(T|K) = P(C|K) P(T|K \ \& \ C) + P(\sim C|K) P(T|K \ \& \ \sim C)$$

This is equally correct from a mathematical standpoint and has the merit of showing more clearly that some of the evidence in K — evidence that is directly pertinent to C — supports T by way of its support for C. If we insist on using the lattice then this ordering allows us to begin to disentangle, albeit clumsily, the contribution of the historical argument from the contributions of the more general metaphysical arguments (cosmological, teleological, etc.) to the probability of theism.

Does not Plantinga himself distinguish these various lines of argument when he considers first $P(T|K)$? Some of his rhetoric is plausibly construed that way. His presentation is punctuated with ordinals: we must “first” find $P(T|K)$; we must “next” consider $P(A|T\&K)$; “now we come to” the hard parts, and so forth. And historical evidence for the truth of Christianity only makes an

²⁰Some philosophers who favor a broadly evidential approach to Christian apologetics do argue that the case must be made in such stages. See Dallas Willard, “Language, Being, God, and the Three Stages of Theistic Evidence,” in J. P. Moreland and Kai Nielsen, eds., *Does God Exist?* (Nashville: Thomas Nelson, 1990), 197-217, particularly pp. 213-15; Sproul, Gerstner and Lindsley, *Classical Apologetics* (Grand Rapids: Zondervan, 1984), pp. 146-7, 276; Norman Geisler, *Christian Apologetics* (Grand Rapids: Baker, 1976), pp. 95-6, 147. But often the classical arguments and the historical case are viewed as at least substantially independent and complementary, a position exemplified in the many works of William Lane Craig.

appearance when he contemplates C itself. There is, then, some excuse for reading him as though, in evaluating $P(T|K)$, he is not only distinguishing various arguments for theism but also considering the probability of theism apart from historical considerations.

But this reading cannot be reconciled with the structure of Plantinga's calculation.²¹ To see why, let tC be the reports of the witnesses regarding the resurrection of Jesus,²² and consider two candidates for our background knowledge:

K^- : Our background knowledge including neither C nor tC , and including nothing that makes either tC or C particularly probable.

K: The conjunction of K^- with tC (which makes C, let us say for the sake of argument, highly probable) but not including C itself, since C appears higher in the lattice.

To be evaluating theism apart from the historical evidence, Plantinga would have to be estimating $P(T|K^-)$. But he emphasizes that the probability of the truth of Christian teaching can rise no higher than that of theism, and this would be a dreadful blunder if the probability of T were evaluated relative to K^- . The evidential base K is considerably richer than the base K^- . Here $P(T|K^-)$ is no constraint on $P(E|K)$, even though $P(T|K)$ is such a constraint, because in the latter probability T receives (from tC , via C) an additional measure of support.²³ And as E entails T, evidence that places the probability of E close to one (which C plausibly does) will also place the

²¹I am indebted to Lydia McGrew for stressing the plausibility of the foregoing reading and for urging me to discuss the problem with Plantinga's calculation in the light of this reading.

²²To make the distinction between historical arguments and the traditional "metaphysical" arguments even sharper we could roll together all of the traditional reports of miraculous happenings into tC and all of the events themselves into C. But as our sentential letters are already sprouting superscripts, it seems wiser to stick with a simpler notation.

²³Via C, because C *screens off* the testimony to the resurrection tC (a subset of our evidence K) with respect to the truth of Christianity (E), i.e., where $K = (K^- \& tC)$, $P(E|C \& tC \& K^-) = P(E|C \& K^-)$ and $P(E|\sim C \& tC \& K^-) = P(E|\sim C \& K^-)$.

probability of T close to one. So it is at least possible that $P(T|K) > P(E|K) \gg P(T|K^-)$.

If .9 had been offered as an initial probability of theism given only general considerations (cosmological, teleological) — if it had been taken relative to K^- , say — then it might be considered generous. Such a probability could be updated by the introduction of new evidence and would not set any restrictions on how high the subsequent probability might rise. Where N is new evidence, $P(T|K \& N)$ may be much greater than $P(T|K)$; indeed, a stronger conjunctive claim may also have a much greater probability, for although $P(T \& E|K)$ cannot be greater than $P(T|K)$, there is no similar restriction on $P(T \& E|K \& N)$. And by conditionalizing successively on increasingly specific pieces of evidence we can achieve a much cleaner representation of the contributions of the traditional arguments and the historical argument to the case for Christianity. This multi-stage approach to the argument is what Swinburne himself originally had in mind, as a careful reading of his works makes plain.²⁴ But since Plantinga's estimate is being offered as a probability for theism conditional on *all* of the evidence (swept into K), *including* the historical evidence, there is no reason whatsoever to think of it as generous.

Plantinga is confronted with a dilemma. If the historical argument is taken synchronically, without Bayesian updating, then he has no grounds for saying that his assignment of .9 to theism is generous — no grounds, in fact, for making *any* assignment without examining the evidence pertinent to T in detail. If it is taken diachronically, as Swinburne intends, then Plantinga's calculation is completely wrong: he needs to use Bayes's Theorem, conditionalizing on *new evidence* at each stage, rather than the theorem on total probability. And in either event the

²⁴See *Revelation*, pp. 69-70. In personal conversation Swinburne has confirmed this and stressed the importance of conditionalizing on increasingly rich bodies of information at successive stages in the argument.

probability of theism on such considerations as the cosmological, moral and teleological arguments alone, not taking into account the testimonial evidence that Christ rose from the dead, cannot place an upper bound on the probability of Christianity.

Hidden Evidence

How, then, should we calculate $P(C|K)$? At this point the lattice gives us no guidance since the interesting inferential structure has been swept into K . Neither the premises nor the inference relations are revealed in the probability lattice. And this is not a problem just for C ; it holds for most, if not all, of the propositions that appear there. Apart from the trivial relation that contradictories conditional on the same evidence must have probabilities that sum to one, it is difficult to tell from a consideration of Diagram 1 alone why some particular probabilities should be assigned to the intermediate propositions rather than others and what influence those bits of evidence should have on other parts of the lattice.²⁵

This tucking away of the actual historical evidence into K allows Plantinga the rhetorical space to make some probability assignments with apparent magnanimity without getting into the historical details at all.

What is this probability $[P(C|K \ \& \ T \ \& \ A \ \& \ B)]$? One hesitates to say much here, given the enormous controversies and disagreements among Scripture scholars. How many people are there who believe on strictly historical grounds together with theism (no help from theology, the internal instigation of the Holy Spirit, or anything like that), that Jesus Christ arose from the dead (in the strict and literal sense)? Even if you had a fine command of the vast literature and thought there was rather a good historical case here, you would presumably think it pretty speculative and chancy. I'd guess that it is likely that the disciples believed that Jesus arose from the dead, but on sheer historical grounds (together with the assumption that there really is such a person as God, who is rather likely to make a revelation to us) it is considerably less likely that this actually did happen. Given all the controversy among the experts, we should probably declare this probability inscrutable — that is, such that we can't

²⁵Where a proposition P is assigned an interval $[\alpha, \beta]$ conditional on a set of propositions, it is customary to define the probability of $\sim P$ conditional on the same set as $[1-\beta, 1-\alpha]$.

really say with any confidence what it is. Again, let's be generous: let's say that this proposition is more probable than not — for definiteness, say it lies in the interval .6 to .8.²⁶

This is not very convincing. It appears to be based more on Plantinga's sense of how much has been written on the subject and how divergent the writers' opinions are than on the evidence in the case.²⁷ Where, for example, is the testimony of the martyred apostles to the resurrection in Diagram 1? It is buried somewhere in K. But that burial hides the very factors that we should most like to take into account in assessing the probability of C.

To be fair, Plantinga makes no claims to be a historian and should not be taken to task for failing to do a historian's job of sifting the evidence and laying out the historical case. But he does claim to be assessing, however imprecisely, the strength of that case. A probability arrived at through consideration of neither the evidence in its own right nor the cogency of the opposing cases brought forward by experts but rather the mere fact of "controversy among the experts" is not a probability that is worth much. For those who take the historical argument seriously it is the historical evidence that must serve as the final arbiter of disputes over C and G. And nowhere in *WCB* does Plantinga offer the reader any direct discussion of the historical evidence.

Nor is it in general true that those who think there is a good historical case for the resurrection think it "pretty speculative and chancy." Rather the reverse. Plantinga, who finds time to mention Morton Smith's suggestion that Jesus was a homosexual magician, does not cite, even

²⁶*WCB*, p. 276.

²⁷Even here Plantinga betrays a curious pessimism: if there is one point on which virtually all New Testament scholars of all persuasions agree, it is that the disciples *believed* they saw the risen Jesus. I am grateful to Gary Habermas for stressing this fact in conversation.

in a footnote, any of the theologians or biblical scholars who advocate the historical argument.²⁸

But many of those who advocate the historical argument consider it to be very strong, even rationally compelling.

To take a historically interesting example, consider the position of Samuel Johnson, who according to a modern biography “asserted the unshakable truth of every major point of Christian Doctrine” — which would seem to put him squarely on the side of G.²⁹ From the detailed portrait of Johnson drawn by Boswell, Windham and other friends, we gather that he put little stock in the traditional theistic proofs, preferring to argue directly from the historical record.

For revealed religion (Johnson said), there was such historical evidence, as, upon any subject not religious, would have left no doubt. . . . For the immediate life and miracles of Christ, such attestation as that of the apostles, who all, except St. John, confirmed their testimony with their blood; such belief as their witness procured from a people best furnished with the means of judging, and least disposed to judge favourably; such an extension afterwards of that belief over all the nations of the earth, though originating from a nation of all others most despised, would leave no doubt that the things witnessed were true, and were of a nature more than human. With respect to evidence, Dr. Johnson observed that we had not such evidence that Caesar died in the Capitol, as that Christ died in the manner related.³⁰

Johnson’s way of approaching the matter allows us to see the grounds on which a reasoned estimate of P(C|K) might be made. How much more likely is it that the apostles would have borne

²⁸A paper like this is no place for a bibliographic exploration. But among those whose scholarly abilities and breadth of historical knowledge cannot be impugned, names like Richard Whately, B. B. Warfield, F. F. Bruce, John Warwick Montgomery, Wolfhart Pannenberg, Craig Blomberg, Gary Habermas, William Lane Craig and N. T. Wright immediately come to mind.

²⁹Peter Quennell, *Samuel Johnson: His Friends and Enemies* (New York: McGraw Hill, 1973), p. 65.

³⁰“Narrative of the last week of Johnson’s life by the Right Hon. William Windham,” in George Birbeck Hill, ed., *Johnsonian Miscellanies*, vol 2. (New York: Barnes and Noble, 1966), p. 384. There is a useful summary of Johnson’s apologetic stance in Chester Chapin, *The Religious Thought of Samuel Johnson* (Ann Arbor, MI: University of Michigan Press, 1968). Johnson’s historical approach resembles and may have been influenced by the work of Nathaniel Lardner and Hugo Grotius.

their witness to the point of martyrdom if they knew their message to be true than if they did not?

Let

θ = The apostles were willing to die as martyrs

γ = The apostles knew their message was true

It is not too difficult to see that Johnson's point, transposed into contemporary idiom, is that the likelihood ratio

$$\frac{P(\theta|K \ \& \ \gamma)}{P(\theta|K \ \& \ \sim\gamma)}$$

must be top-heavy in the extreme.³¹ And this is the factor by which the ratio of the prior probabilities $P(\gamma|K)/P(\sim\gamma|K)$ must be multiplied to obtain the ratio of the posterior probabilities,

$$\frac{P(\gamma|K \ \& \ \theta)}{P(\sim\gamma|K \ \& \ \theta)},$$

greatly to the benefit of the hypothesis that the apostles knew that their message was true.

Though it does bring us closer to the historical facts than Plantinga's survey of scholarly discord, even this expression does not display the full force of the *independent* witness of the martyred apostles.³² This is no mere idiosyncrasy of the historical argument for Christianity. It

³¹In personal conversation Bill Craig has raised the question of whether γ should here be replaced by a weaker claim to the effect that the disciples *believed* that their witness was true. In fact either approach is possible and they will, in the end when the information is suitably enriched, yield the same conditional probability. Johnson appears to be assuming (reasonably, in my opinion) that the probability that the disciples would have believed that Jesus rose from the dead if they did not know this to be a fact is quite low.

³²John Earman offers an illuminating discussion of the assimilation of independent concurring testimony in a Bayesian probabilistic framework in *Hume's Abject Failure* (Oxford: Oxford University Press, 2000), pp. 53-9. There is a brief and penetrating analysis of the conditions under which testimony to a miracle might confirm the existence of God in Tomoji Shogenji, "A Condition for Transitivity in Probabilistic Support," *British Journal for the Philosophy of Science* 54 (2003): 613-6. For some wider applications of dependence and independence in probabilistic reasoning see Timothy McGrew, "Confirmation, Heuristics, and

often happens in empirical inquiries that we need to coordinate independent lines of evidence. “Each fact is suggestive in itself,” Sherlock Holmes declares in one of his best cases. “Together they have a cumulative force.”³³ But in just such cases the attempt to represent evidence in a lattice is most apt to mislead. There is no good way to portray independent lines of evidence within the structure of the lattice; and if we try to represent them with a conjunction, experience indicates that we are almost certain to underestimate the force of the conjunctive evidence gravely.³⁴ It is one of the drawbacks of Plantinga’s approach that it offers us no safeguards against this pervasive human tendency to downplay the value of converging evidence.

Johnson’s other points also lend themselves to analysis in terms of likelihood ratios. Let

C* = Christianity would spread within the Jewish and secular Roman empire in the 1st century

D* = Christianity was despised within Judaism and the secular Roman empire

E* = The empirical claims of Christianity could be judged by those among whom it spread

T* = Christianity is true

Then Johnson’s second point can be put as

Explanatory Reasoning,” *British Journal for the Philosophy of Science* 54 (2003): 553-67.

³³Sir Arthur Conan Doyle, “The Adventure of the Bruce Partington Plans,” in *The Complete Sherlock Holmes* (New York: Doubleday, 1988) p. 920. There is an echo here of Butler’s famous comment that “probable proofs, by being added, not only increase the evidence, but multiply it.” *The Analogy of Religion* (New York: Frederick Ungar, 1961), p. 238. Jason Colwell sketches how a cumulative strategy might apply to multiple lines of argument (as opposed to multiple pieces of evidence) in “The Historical Argument for the Christian Faith: A Reply to Alvin Plantinga,” *International Journal for Philosophy of Religion* 53 (2003): 147-61.

³⁴The tendency to underestimate the power of conditionalization on independent evidence is a commonplace of the literature in cognitive psychology. See Howard Raiffa, *Decision Analysis* (Reading, MA: Addison-Wesley, 1968) pp. 20-1.

$$\frac{P(C^*|K \& D^* \& E^* \& T^*)}{P(C^*|K \& D^* \& E^* \& \sim T^*)} \gg 1,$$

again a ratio that, upon conditionalization with respect to C^* , greatly favors the truth of Christianity over its falsehood.

It is safe to say that Dr. Johnson, with his mathematics brought up to date by the Reverend Bayes, would not have characterized the historical case as “pretty speculative and chancy” and would not be impressed with Plantinga’s “generosity” in suggesting that the probability of C lies between .6 and .8. Something closer to the definition of “moral certainty,” pegged by Johnson’s contemporary the Comte de Buffon as a probability in excess of .9999, would doubtless have been a better representation of Johnson’s estimate of the strength of the historical evidence.³⁵

One might, of course, try to paint Johnson as overly credulous and prone to superstitious belief. But this is difficult to reconcile with what we know of him from his life, his writings, and the accounts of his contemporaries. He was a relentless debunker of fakers, ghosts and mystics. “Distrust,” he wrote, “is a necessary qualification of a student of history.”³⁶ And Boswell indicates that this was a constant refrain in his discourse.

He was indeed so much impressed with the prevalence of falsehood, voluntary or unintentional, that I never knew any person who upon hearing an extraordinary circumstance told, discovered more of the *incredulus odi*. . . He inculcated upon all his friends the importance of perpetual vigilance against the slightest degrees of falsehood.³⁷

³⁵For a discussion of Buffon’s rationale for picking $r > .9999$ as the probabilistic equivalent of a moral certainty, see Lorraine Daston, *Classical Probability in the Enlightenment* (Princeton: Princeton University Press, 1989), pp. 206-7.

³⁶“Review of the Account of the Conduct of the Dutchess of Marlborough,” (1742) in *The Works of Samuel Johnson*, vol. 6 (Oxford, 1825), p. 5.

³⁷Boswell, *Life of Johnson*, vol.3, p. 329.

It does not follow that Johnson's evaluation of the evidence for Christianity is correct. He did not, after all, have the textual and higher critics of the subsequent two centuries to read, though from the reaction of more recent advocates of the historical argument we can speculate what his response to them might have been. But Plantinga himself is silent on the details of the arguments advanced by the likes of Strauss and Bultmann and the responses to their arguments by more conservative Biblical scholars. So while the example of Johnson's evidentialism does not by itself provide a strong case for the cogency of the historical argument, it does suggest that Plantinga would have to do a great deal more detailed work in order to support the deflationary conclusion he favors.

Conclusion

Plantinga's critique of the historical argument is a failure — if not an abject failure, then at least a decisive one. But it is also an instructive failure, for the analysis of the manner in which it fails sheds light on at least four issues at different levels of generality.

The first and most general lesson to be learned from the failure of Plantinga's critique is that the utility of the principle of dwindling probabilities as a skeptical strategy is severely limited. The principle cannot be made to bear epistemic weight except in unusual circumstances where we can tell that all but one of the paths contain some proposition or other with a conditional probability that is zero or inscrutable. And this infirmity is quite general. Whether the topic is the truth of Christianity, the existence of an external world, or the reality of some set of theoretical entities postulated in a scientific theory, the principle cannot underwrite skeptical conclusions without considerable supplementary argumentation.

The second lesson is that the evaluation of any complex argument by means of subjective

probability estimates is fraught with dangers. George Campbell might have had Plantinga rather than Hume in mind when he wrote that “the evidence of any complex argument depends very much on the order into which the material circumstances are digested, and the manner in which they are display’d.”³⁸ Plantinga’s evaluation of various probabilities in the historical argument illustrates how easily the rhetoric of “generous” probability assignments can provide a cover for failure to engage with the evidence, particularly when that evidence has been swept into the background knowledge K . And the order in which Plantinga considers the steps in his chain of reasoning obscures the inferential structure one would have to take into account to make a reasonable assignment of probabilities.

We noted earlier that E entails T , and it follows that $P(E|K)$ can never rise higher than $P(T|K)$. Swinburne, whose conception of the proper structure of the argument is quite different from Plantinga’s, acknowledges that if one insists on running the calculation through the theorem on total probability “there will never be an increase in the probability when you take into account the different routes, but the diminution may not be very great.”³⁹ But the inequality works both ways. If $P(E|K)$ is taken to be a moral certainty in virtue of the Johnsonian considerations contained in K , then $P(T|K)$ is a moral certainty of at least as high an order. The cumulative-case argument for Christianity, like any other cumulative-case argument, cannot be evaluated by running off-the-cuff probabilities through the theorem on total probability. We can arrive at sensible estimates of those probabilities only by a painstaking sifting of the empirical evidence, and a probabilistic argument will require Bayesian conditionalization and updating on this evidence.

³⁸George Campbell, *A Dissertation on Miracles* (Edinburgh: A. Kincaid & J. Bell, 1762), p. v.

³⁹Swinburne, p. 216.

The third lesson is that the present dominance of Plantinga’s distinctive approach to the epistemology of religious belief, particularly his deprecation of historical evidence as a ground for religious belief, owes somewhat more to Plantinga’s vigorous rhetoric and less to rigorous argument than is widely supposed. Plantinga himself has stated plainly that the “main problem” with an evidentialist approach to religious knowledge is that it “wouldn’t work,”⁴⁰ principally because an evidentialist approach could not, in the nature of the case, validate belief in the core claims of Christianity. The credibility of this brand of Reformed Epistemology is somewhat lessened, and that of evidentialism somewhat increased, by the failure of his critique.

The final lesson is that the historical argument cannot be evaluated by proxy: it stands or falls not with the clamor of conflicting voices but with the strength of the evidence. There is a curious lack of communication on this issue between the epistemologists and the historians, even the apologists — between those who specialize in the structure of arguments and those with expertise in the evidence itself. Until we come to grips with that evidence in a detailed way we will inevitably undervalue and even fail to understand the long tradition of evidentialism in the philosophy of religion, a tradition eloquently articulated by Campbell in his famous response to Hume:

God has neither in natural nor reveal’d religion, *left himself without a witness*; but has in both given moral and external evidence, sufficient to convince the impartial, to silence the gainsayer, and to render the atheist and the unbeliever without excuse. This evidence it is our duty to attend to, and candidly to examine. We must *prove all things*, as we are expressly enjoin’d in holy writ, if we would ever hope to *hold fast that which is good*.⁴¹

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⁴⁰WCB, p. 268.

⁴¹Campbell, pp. 3-4.

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