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EVIDENCE, MIRACLES, AND THE EXISTENCE OF JESUS: COMMENTS ON STEPHEN LAW

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We use Bayesian tools to assess Law's skeptical argument against the historicity of Jesus. We clarify and endorse his sub-argument for the conclusion that there is good reason to be skeptical about the miracle claims of the New Testament. However, we dispute Law's *contamination principle* that he claims entails that we should be skeptical about the existence of Jesus. There are problems with Law's defense of his principle, and we show, more importantly, that it is not supported by Bayesian considerations. Finally, we show that Law's principle is false in the specific case of Jesus and thereby show, contrary to the main conclusion of Law's argument, that biblical historians are entitled to remain confident that Jesus existed.

In his essay "Evidence, Miracles and the Existence of Jesus,"[1] Stephen Law claims that the existence of Jesus is not established by the evidence of the New Testament, and that there is "good reason to be skeptical" of his existence. He adds, however, that he is also skeptical about the claim that the Jesus story is entirely mythical, and he acknowledges that the evidence of the New Testament "may even make Jesus's existence a little more probable than not." He presents the following argument, which he does not fully endorse, but which he says has some prima facie plausibility:

1. Where a claim's justification derives solely from evidence, extraordinary claims (e.g. concerning supernatural miracles) require extraordinary evidence. In the absence of extraordinary evidence there is good reason to be skeptical about those claims.
2. There is no extraordinary evidence for any of the extraordinary claims concerning supernatural miracles made in the New Testament documents.
3. Therefore (from 1 and 2), there's good reason to be skeptical about those extraordinary claims.

[1]Stephen Law, "Evidence, Miracles and the Existence of Jesus," *Faith and Philosophy* 28 (2011), 129–151.

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4. Where testimony/documents weave together a narrative that combines mundane claims with a significant proportion of extraordinary claims, and there is good reason to be skeptical about those extraordinary claims, then there is good reason to be skeptical about the mundane claims, at least until we possess good independent evidence of their truth.
5. The New Testament documents weave together a narrative about Jesus that combines mundane claims with a significant proportion of extraordinary claims.
6. There is no good independent evidence for even the mundane claims about Jesus (such as that he existed).
7. Therefore (from 3, 4, 5, and 6), there's good reason to be skeptical about whether Jesus existed.[2]

Premises 1 and 4 are methodological principles that Law labels, respectively, P1 and P2, whereas premises 2, 5, and 6 are empirical assumptions. He claims that P2, which he calls the *contamination principle*, entails that we should remain skeptical about the existence of Jesus, but that other methodological principles popular with biblical historians, such as the *criterion of embarrassment*, fail to establish the existence of Jesus as highly probable.

Law deserves credit for writing the most interesting and promising attempt to cast doubt on the existence of Jesus. Some aspects of his argument have merit—particularly, his principle P1 (when given a Bayesian interpretation) and step 3 (which he attempts to derive from P1 using premise 2). Still, there are problems with his main argument, specifically, with his defense of principle P2. Moreover, we will show below that P2 is actually false, and that biblical historians are entitled to remain confident that Jesus existed.

It will be helpful to begin by first laying out the probabilistic machinery we will be using in our critique of Law's argument. Let H be any claim, i.e., any hypothesis. The total evidence or information that is relevant to H can be divided into (1) statements of those facts that bear as evidence upon H by virtue of its power to explain them by conferring some degree of likelihood upon them and (2) statements of those facts that bear (more directly) as evidence upon H by virtue of making it probable or improbable to some degree, quite apart from the contribution of the former group of statements. We will call the conjunction of the evidence statements of the first division E—for *facts to be explained*—and the conjunction of the evidence statements of the second division B—for *background evidence*. The terminology "background evidence" and "facts to be explained" is meant only to be suggestive, for the division between B and E is often pragmatic, depending on the specifics of the case, so that what counts as "background

[2]Ibid., 140–141. This is a quotation of Law's argument except for the omission of the terms "(P1)" and "(P2)" in premises 1 and 4.

evidence" and "facts to be explained" is to a significant extent a matter of convenience.

Belief comes in two complementary kinds: belief as an *unqualified* state that is *categorically* present or absent—so-called "flat-out" belief—and belief as a *quantitative/quasi-quantitative* state that is a matter of degree—so called "partial belief."[3] We shall be concerned here only with the latter except to point out, significantly, that flat-out belief in a proposition is *rational* only if *rational* partial belief in that proposition is greater than 0.5. It has been shown in this connection by Brian Skyrms (in his reformulation of the pioneering work of Frank P. Ramsey and Bruno de Finetti) that, in order to be *rational*, degree of belief must satisfy the theorems of the probability calculus and be, therefore, *probability* in this sense and, in particular, *epistemic* probability—to distinguish it from *purely subjective* degree of belief as well as other kinds of probability that do not pertain (at least directly) to propositions, e.g., relative frequency and propensity.[4] In what follows, accordingly, we will use P( ) to designate *epistemic* probability, i.e., the degree to which it is rational to believe whatever proposition serves as the argument of the function. In our discussion below we will abbreviate the term "epistemic probability" by the simpler term "probability."

Adopting the terminology (but with minor changes in notation) used by Swinburne, we will call P(H|B&E) the *posterior* probability of H; P(H|B) and P(~H|B), respectively, the *prior* probabilities of H and of ~H; and P(E|B&H) and P(E|B&~H), respectively, the explanatory powers (likelihoods) of H and of ~H. The posterior probability of H, P(H|B&E), is the degree of probability it has with respect to the total evidence for it, B and E. The prior probability of H and of ~H, P(H|B) and P(~H|B), is, in each case, the degree of probability it has with respect to B alone. And the explanatory power of H and of ~H, P(E|B&H) and P(E|B&~H), is, in each case, the power the hypothesis has (in conjunction with B) to explain E (or, rather, the facts it states) in the sense of conferring a certain degree of *likelihood* upon it. For this reason we shall use "explanatory power" and "explanatory likelihood" interchangeably. Bayes's theorem, to which we

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[3]For the distinction see Keith Frankish, "Partial Belief and Flat-Out Belief," in *Degrees of Belief*, ed. F. Huber and C. Schmidt-Petri (Dordrecht: Springer, 2009), 75–93.

[4]To be *rational*, of course, degree of belief must be coherent. But as Skyrms shows in his reformulation of Frank P. Ramsey's and Bruno de Finetti's classic coherence arguments: "degrees of belief are coherent if and only if they are finitely additive probabilities," i.e., satisfy the axioms of the probability calculus and the definition of conditional probability. See Brian Skyrms, "A Mistake in Dynamic Coherence Arguments?" *Philosophy of Science* 60 (1993): 320; and *Choice and Chance: An Introduction to Inductive Logic*, 2nd ed. (Belmont, CA: Wadsworth Publishing Company, 1975), Chapter I, especially, page 15, Chapter VI, and Chapter VII, especially, pages 210–222. See also F. P. Ramsey, "Truth and Probability," in *The Foundations of Mathematics and Other Essays*, ed. R. B. Braithwaite (New York: Harcourt Brace, 1931; repr. in *Studies in Subjective Probability*, ed. Henry E. Kyburg, Jr. and H. Smokler [Huntington, NY: Krieger, 1980]); and B. de Finetti, "La prévision: ses lois logiques, ses sources subjectives," *Annales de l'Institut Henri Poincaré* 7 (1937), 1–68. (Translation published as "Foresight: Its Logical Laws, Its Subjective Sources," in *Studies in Subjective Probability*, ed. Henry E. Kyburg, Jr. and H. Smokler (Huntington, NY: Krieger, 1980).

will turn below, shows how the posterior probability of H can be derived from the other four probabilities:

$$P(H|B\&E) = \frac{P(H|B) \times P(E|B\&H)}{P(H|B) \times P(E|B\&H) + P(\sim H|B) \times P(E|B\&\sim H)}.$$

Let us now consider not some undefined hypothesis H but the specific claim, which we shall call J, that Jesus existed. What evidence could be included in B&E to justify a degree of belief that Jesus really existed, i.e., to give the probability of interest in our examination of Law's argument, $P(J|B\&E)$, a value that is significantly greater than 0.5? Four items of evidence stand out—evidence that skeptics tend to underrate. First, Paul testifies (Gal. 2:9) that just a few years after the crucifixion he personally met with Peter, James, and other leaders of the church who claimed to be the disciples and family of Jesus (some were also martyrs, including James, who is identified by the same body of testimony as the brother of Jesus). It seems improbable that Paul lied about this meeting; and, as the New Testament scholar C. H. Dodd famously quipped, "We may presume that they did not spend all their time talking about the weather."[5] Second, one must account for the coherent body of sayings and actions attributed to Jesus in the gospels, which seem to derive from a single creative and sagacious personality. The simplest explanation is that they derive from Jesus himself. To paraphrase an old joke about Shakespeare, if Jesus did not say and do those things, then someone just like him did. Third, in addition to the testimony, one must also account for the origin of the Jesus movement within Judaism and its evolution into the early church, and, again, the simplest explanation is that it was initiated by Jesus himself (otherwise, someone just like him). Fourth, the tradition that Jesus was crucified occurs in Paul and the canonical gospels, but the crucifixion of someone with messianic pretentions would be a clear stumbling block (or "embarrassment") to Jews who accepted the Torah—particularly *Deuteronomy* 21:22–23, which places God's curse upon the crucified. It seems very unlikely that the authors of the gospels would compose stories about a *crucified* messiah unless the crucifixion was an undeniable fact. In the case of this fourth item, we acknowledge that Law has doubts about the *criterion of embarrassment*. Of course, it is epistemically possible on B&E that Jesus did not exist, and, indeed, more than this, since $P(\sim J|B\&E)$ is not strictly 0—and actually greater than vanishing. Nonetheless, we will argue below that this evidence can be used to mount a strong cumulative case in favor of J, giving $P(J|B\&E)$ a very high value.

Turning to Law's argument, we regard his inference of step 3 from premises 1 and 2 to be sound *prima facie*. Premise 1, i.e., Law's principle

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[5]C. H. Dodd, *The Apostolic Preaching and Its Developments*, 3rd ed. (London: Hodder & Stoughton, 1967), 26.

P1 that *extraordinary claims require extraordinary evidence* follows from probabilistic, and, in particular, Bayesian considerations. We need only identify, as is entirely natural, "extraordinary claims" with "claims that have an exceedingly low prior probability," and "extraordinary evidence" with "evidence upon which a claim confers an explanatory likelihood that is exceedingly greater than that conferred upon it by the denial of that claim." Law's thesis in P1 then follows as a consequence of these identities and Bayes's theorem. Moreover, and quite significantly, Law's proviso on this thesis in P1, namely, "where a claim's justification derives solely from evidence," becomes superfluous and can thus be omitted from P1 in our Bayesian explication. On such a Bayesian reading, P1 becomes true quite apart from this. Thus, where H is any *extraordinary* claim, H will be justified, i.e., it will achieve a probability greater than 0.5, just in case $P(H|B\&E)$ is greater than 0.5—that is, just in case the ratio $P(E|B\&H)/P(E|B\&{\sim}H)$ is exceedingly high to the same degree that $P(H|B)$ is exceedingly low. In the absence of extraordinary evidence E, however, the posterior probability of H will be approximately equal to its prior probability, and, since this is astronomically low in the case of H as an extraordinary claim, it follows that H cannot be justified apart from the extraordinary evidence for it provided by E. Although Law ignores opposing arguments advanced by, e.g., Craig, Licona, Swinburne, and the McGrews, that extraordinary evidence exists for the miracle claims of the New Testament—specifically the Resurrection[6]—we agree with him that premise 2 is correct and have argued elsewhere that this alleged extraordinary evidence does not exist.[7]

But let us now examine Law's *contamination principle* P2, which he claims entails that we should remain skeptical about the existence of Jesus. This is a general epistemic principle regarding testimonial evidence (e.g., that given in the New Testament) in which the content of the testimony satisfies the following four conditions: (a) the narrative/documents contain a number of *mundane claims*; (b) the narrative also weaves together the mundane claims with a significant proportion of *extraordinary claims*; (c) there is good reason to be skeptical of the extraordinary claims; (d) there is no good evidence, independent of the testimonial narrative, that establishes a high probability for the mundane claims. P2, then, can be paraphrased as the principle that, if conditions (a) through (d) are satisfied

[6]William Lane Craig, *Reasonable Faith: Christian Truth and Apologetics*, 3rd ed. (Wheaton, IL: Crossway books, 2008); Michael R. Licona, *The Resurrection of Jesus: A New Historiographical Approach* (Downers Grove, IL: InterVarsity Press, 2010); Richard Swinburne, *The Resurrection of God Incarnate* (Oxford: Clarendon Press, 2003); and Timothy and Lydia McGrew, "The Argument from Miracles: A Cumulative Case for the Resurrection of Jesus of Nazareth," in *The Blackwell Companion to Natural Theology*, ed. William Lane Craig and J. P. Moreland (Malden, MA: Wiley-Blackwell, 2009).

[7]We critique Swinburne's argument in our "Swinburne on the Resurrection: Negative versus Christian Ramified Natural Theology," *Philosophia Christi* 15:2 (2013); we critique the arguments of Craig and Licona in our "The Resurrection Theory as 'Best Explanation,'" unpublished manuscript under editorial review; and we critique the argument of the McGrews in our "The Explanatory Paucity of the Resurrection Theory," unpublished manuscript under editorial review.

by a body of testimony, then there is good reason to be skeptical about the mundane claims. In the case of Jesus, the mundane claim in question is that he existed, while the extraordinary claims consist of a number of miracle stories woven into the narrative of his life, actions, and teaching. According to Law, some claims (the miracle stories) "contaminate" other claims (the mundane aspects of the testimony).

Law defends P2 by appeal to our philosophical intuitions. He invents a story about his close friends Ted and Sarah, who plausibly claim that a certain Bert came to their home for tea and conversation. So far he believes them. But now they add that, shortly before leaving, this Bert flew around the room by flapping his arms, died and resuscitated, and temporarily changed their sofa into a donkey. In the section "Assessing P2," Law defends his principle with an argument that can be paraphrased in standard form as follows:

1. Clearly, in the Ted and Sarah case, the dubious character of the extraordinary, uncorroborated parts of their testimony does contaminate the non-extraordinary parts.
2. So, some sort of contamination principle is correct.

There are three problems that arise for Law's defense of P2. First, his argument seems question-begging to the extent that the premise already seems to rely for its plausibility upon some sort of contamination principle. After all, "does contaminate" in the premise means little if it does not mean that the parts of the testimony are such that the extraordinary parts justify doubt about the non-extraordinary parts, in accordance with some sort of contamination principle. If, to avoid this problem, the argument is rephrased with a weaker premise and P2 itself as the conclusion:

1. Clearly, in the Ted and Sarah case, the dubious character of the extraordinary, uncorroborated parts of their testimony *raises some degree of suspicion about* the non-extraordinary parts.
2. So, P2 is correct.

then the argument is not question-begging, but now the (weakened) premise does not adequately support the (strengthened) conclusion. It does not seem that one's reasonable philosophical intuitions about the sole case of Ted and Sarah can support such a broad epistemic principle as P2.

Second, even if our intuitions concur with Law's and lead us to reasonably doubt the existence of Bert, the assessment of J is not just a matter of our intuition about the Ted and Sarah case, but also a matter of whether and to what degree the Ted and Sarah case is a strong analogy to the apostles and Jesus, so that something like P2 can be deployed. Law characterizes Ted and Sarah (appropriately) as sane and trustworthy individuals who speak with sincerity and seem genuinely disturbed by what they believe they witnessed. In other respects, however, the Ted and Sarah case is a poor analogy to the New Testament—e.g., in terms of the scope of the narrative, its sophistication as a wisdom tradition, the rich historical and social context, a time frame of decades, the opportunity for the accumulation of mythical/supernatural elements around a "mundane" core, and the willingness of the apostles to accept hardship and even the risk of death for what they affirmed. One still wonders why miracle claims can't be astronomically improbable just on their own—without "contamination" of the mundane claims. For example, Catholic saints have miracles attributed to them by testimonial evidence. Why should these miracle claims contaminate testimony regarding their lives? Significantly, our confidence that these saints existed need not rely upon evidence that is independent of the testimony.

Third, even in the Ted and Sarah case, if we assume that they are genuinely trustworthy, sane, sober, and sincere, and if they persist in their insistence that Bert was with them and that he performed miracles, and if they are joined by additional witnesses who are also willing to endure hardship for what they claim, then the more probable explanation may well be that Bert *did* have tea with them, but that Ted and Sarah were the victims of an elaborate hoax involving Bert. Law explicitly denies that this is plausible, but in so doing he in effect confuses what Bayes's theorem distinguishes as *prior* and *posterior* probabilities: from the fact that such a hoax is initially improbable, it does not follow that its posterior probability on the total evidence is low. For example, conspiracy theories, by their very nature, have very low prior probabilities; yet some conspiracy theories turn out to be true, i.e., have a high posterior probability, by virtue of their comparatively higher explanatory power in relation to the available evidence. In general, a very low prior probability can in principle—and in some actual cases—be overcome by sufficient explanatory power.

Not only do problems arise for Law's defense of P2, but, more importantly, P2 is not supported by Bayesian considerations and, indeed, we shall now show that P2 is false in the case of Jesus. Let us reconsider Law's statement of P2:

> Where testimony/documents weave together a narrative that combines mundane claims with a significant proportion of extraordinary claims, and there is good reason to be skeptical about those extraordinary claims, then there is good reason to be skeptical about the mundane claims, at least until we possess good independent evidence of their truth.

Now, skepticism is doubt, and doubt, like belief, is a matter of *degree*, not an all or nothing affair.[8] Indeed, doubt to any degree (e.g., 0.97) in any proposition (e.g., *Jesus rose from the dead*) is equal to belief to the same degree in the denial of that proposition (e.g., *Jesus did not rise from the dead*) or, equivalently, to 1 – the degree of belief in that proposition (e.g.,

[8]It is true, of course, that "flat-out" belief is not a matter of degree, but it is, nonetheless, subject to the crucial *consistency* condition on both kinds of belief, namely, that flat-out belief in a proposition is *rational* only when degree of belief in that proposition greater than 0.5 is itself *rational*.

$1 - 0.03 = 0.97$). And, if the degree of belief/doubt in question is *justified*, then we have *rational* degree of belief/doubt, that is, (*epistemic*) probability. Thus P2 must be interpreted in terms of probability.

Now consider any compound claim $C_M\&C_E$ consisting of the conjunction C_M of mundane ("ordinary") claims $0_1, \ldots, 0_n$ (e.g., that Jesus existed, that he was born in Nazareth, and that he was an itinerant preacher who taught in parables) and the conjunction C_E of extraordinary ("miraculous") claims $M_1, \ldots, M_K$ (e.g., that Jesus healed blind Bartimaeus, that he walked on water, and that he turned water into wine). Let us suppose—as, of course, *is* true in the case of Jesus from the New Testament—that there is testimonial evidence for claim $C_M\&C_E$. We will call our total testimonial evidence for this claim T and divide this evidence into testimonial evidence T_M for mundane claims C_M and testimonial evidence T_E for extraordinary claims C_E; i.e., T is $T_M\&T_E$. Recall from our earlier discussion above that Law states in P1 that, in the *absence* of extraordinary evidence for extraordinary claims, there is good reason to be skeptical about those claims. Recall, moreover, that Law supposes in premise 2—a supposition we have shown elsewhere to be justified in the case of Jesus and the New Testament[9]—that there is no extraordinary evidence for extraordinary claims C_E, and, thus, that $T_M\&T_E$ is *non-extraordinary* evidence. Thus, the *only* evidence for C_M and C_E is the non-extraordinary testimonial evidence provided, respectively, by T_M and T_E. There *is* no independent evidence. Consequently, given the soundness of Law's argument from P1 and premise 2 to step 3, we can restate the latter as the conclusion that $T_M\&T_E$ is insufficient to provide extraordinary claims C_E with probability greater than 0.5.

T_M and T_E can be defined more precisely as follows:

T_M: The *non-extraordinary* testimonial evidence T weaves together a narrative that contains the mundane claims of C_M, specifically, $0_1, \ldots, 0_n$.[10]

T_E: The *non-extraordinary* testimonial evidence T weaves together a narrative that contains a significant proportion of the extraordinary claims of C_E, specifically, some subset of $M_1, \ldots, M_K$, and combines these with the mundane claims of C_M, specifically, $0_1, \ldots, 0_n$.

It is important to observe in this connection that, although T_M and T_E *specify* what particular claims are contained in the narrative woven together by T, viz., $0_1, \ldots, 0_n$ in the case of T_M and $0_1, \ldots, 0_n$ and some subset of $M_1, \ldots, M_K$ in the case of T_E, they do *not* affirm these claims (even implicitly), and,

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[9]See n7.

[10]In order to keep our Bayesian notation simple, we are forcing T_M to do "double duty" in our argument. It contains, accordingly, not only the mundane testimony explicitly stated in its definition given in the text, but, in addition, non-testimonial evidence consisting of commonly accepted historical facts of relevance to the mundane claims of the New Testament regarding Jesus, e.g., that Roman crucifixion was reserved for the hardest criminals and insurrectionists. This additional information could be abbreviated by, say, "F," and the conjunction $F\&T_M$ could be substituted for B in Bayes's theorem, but we wish to avoid pointless notational complexity.

thus, do not entail that they are true. Using these definitions, we can formalize step 3 of Law's argument in Bayesian terms as the thesis that the probability of C_E on the testimonial evidence $T_M\&T_E$ is *not* high, i.e., that $P(C_E|T_M\&T_E) \leq 0.5$. This says that the absence of extraordinary evidence for extraordinary claims C_E—or, more precisely, that the fact that we possess *only* non-extraordinary *interwoven* testimonial evidence $T_M\&T_E$ for C_E—makes it *no* more probable than 0.5 that C_E is true. Of course, this is also the antecedent of P2 as we restated it above. The consequent, similarly, is the claim that $P(C_M|T_M\&T_E) \leq 0.5$—which states that the fact that we possess *only* non-extraordinary *interwoven* testimonial evidence $T_M\&T_E$ for C_M makes it improbable (≤ 0.5) that C_M is true. Law's P2, accordingly, rephrased in probabilistic terms, states:

$$\text{If } P(C_E|T_M\&T_E) \leq 0.5, \text{ then } P(C_M|T_M\&T_E) \leq 0.5.$$

This, then, with step 3, yields step 7—which is Law's conclusion: $P(C_M|T_M\&T_E) \leq 0.5$.[11]

However, P2 is false. We will now show using Bayes's theorem that, even if the value of $P(C_E|T_M\&T_E)$ is low, the value of $P(C_M|T_M\&T_E)$ may still be high. By substituting C_M, T_M, and T_E, respectively, for H, B, and E in the schema for Bayes's theorem given earlier, we obtain the following instance of Bayes's theorem:

$$P(C_M|T_M\&T_E) = \frac{P(C_M|T_M) \times P(T_E|T_M\&C_M)}{P(C_M|T_M) \times P(T_E|T_M\&C_M) + P(\sim C_M|T_M) \times P(T_E|T_M\&\sim C_M)}.$$

Bayes's theorem enables us to distinguish between *the prior probability* of the mundane claims C_M, that is, the probability of C_M with respect to the testimony T_M for this alone, and *the posterior* or *final probability* of C_M, that is, its probability with respect to our total relevant evidence, namely, the testimony T_M for the mundane claims C_M and the testimony T_E for the extraordinary claims C_E. The prior and posterior probabilities of C_M are symbolized, respectively, by $P(C_M|T_M)$ and $P(C_M|T_M\&T_E)$. The term $P(\sim C_M|T_M)$ is *the prior probability* of $\sim C_M$, i.e., the *denial* or *negation* of C_M, and is equal, by the Negation theorem of the probability calculus, to $1 - P(C_M|T_M)$. Bayes's theorem, in addition, enables us to distinguish between the *explanatory power* of C_M, that is, the *likelihood* that C_M, in conjunction with T_M, confers on the testimony T_E and the *explanatory power* of $\sim C_M$, that is, the *likelihood* that $\sim C_M$, in conjunction with T_M, confers on T_E. The explanatory power of C_M and of $\sim C_M$ are symbolized, respectively, by $P(T_E|T_M\&C_M)$ and $P(T_E|T_M\&\sim C_M)$. And the point here is that, in light of these crucial distinctions made by Bayes's theorem, it is clear that P2 is false—at least for the case of Jesus.

[11]Note that we have built Law's premises 5 and 6 into our statements of step 3 and P2.

Let C_M now be, specifically, the mundane New Testament claims about Jesus—including, in particular, that Jesus existed, i.e., J, and let T be the total testimonial evidence we have regarding Jesus from the New Testament. As above, let us divide T into T_M and T_E. Let T_M be mundane testimony that Jesus existed, went to Jerusalem, was crucified, etc.; and let T_E be testimony for the extraordinary events consisting of Jesus's healing and nature miracles, his Resurrection, and his Ascension into Heaven, etc. Now let us condition on just the *partial* testimonial evidence T_M. Doing so does not violate the *total information requirement* because this partial evidence will only be used to get a certain kind of probability, specifically, the *prior* probability $P(C_M|T_M)$. Here, as Law himself must admit, in the absence of T_E and its (allegedly) contaminating effects, C_M must have a very high probability on T_M—for every claim in C_M is justified by a corresponding very specific item of testimonial evidence in T_M. Given only that evidence, i.e., given only T_M, the degree to which it is rational to believe C_M on this basis is very high—at least 0.99, and certainly no less than 0.5.

Law cannot reply here that T_E—even though we are not yet considering it—still contaminates T_M. This is because our probabilities are *epistemic*, i.e., the degree to which it is rational to believe a hypothesis on the basis of certain specific information. In other words, here "ignorance" of T_E is bliss. Indeed, even Law agrees that, if the only information about Bert we got from Ted and Sarah is that he came to their home for tea and conversation, then the degree to which it is rational to believe in Bert's existence on this basis is high.

Moreover, there is no contamination, for, as we just saw above, Bayes's theorem states that:

$$P(C_M|T_M\&T_E) = \frac{P(C_M|T_M) \times P(T_E|T_M\&C_M)}{P(C_M|T_M) \times P(T_E|T_M\&C_M) + P(\sim C_M|T_M) \times P(T_E|T_M\&\sim C_M)}.$$

Thus, Bayes's theorem enables us to decompose $P(C_M|T_M\&T_E)$ into prior probabilities $P(C_M|T_M)$ and $P(\sim C_M|T_M)$ and explanatory likelihoods $P(T_E|T_M\&C_M)$ and $P(T_E|T_M\&\sim C_M)$. The result is that T_M has been "unwoven" from T_E, in that the latter does not occur in the *prior* probability $P(C_M|T_M)$ whereas it does occur in the posterior or final probability $P(C_M|T_M\&T_E)$. Thus, we are now able to deal with $P(C_M|T_M)$ alone. However, as already observed above, $P(C_M|T_M)$ is epistemic probability, and because it only conditions on the partial information T_M, even Law must concede that it is very high.

Now compare the explanatory likelihoods $P(T_E|T_M\&C_M)$ and $P(T_E|T_M\&\sim C_M)$. Clearly, the former is at least equal to the latter. Indeed, it is surely much greater: $P(T_E|T_M\&C_M) \gg P(T_E|T_M\&\sim C_M)$. That is, it is much more likely on the truth of the mundane claims C_M of the New Testament about Jesus (e.g., that he existed, had a ministry, went to Jerusalem, etc.) that we should get testimony from the New Testament that makes extraordinary claims about Jesus than it is on the falsehood of these mundane claims, i.e., $\sim C_M$. This is so because T_M includes mundane testimony regarding the humiliation and crucifixion of Jesus, as well as Paul's testimony that he met and spoke with Peter, John, and James—presumably about such matters as the crucifixion. The *criterion of embarrassment* (which Law has doubts about) says that, whenever a report (e.g., T_M) that defames an alleged individual, and thus embarrasses devotees and believers, is nonetheless reported and repeated by them, the claim made by that report (e.g., C_M) is very likely to be true. Reports of the humiliation and crucifixion of the purported messiah would have been embarrassing in this way because the crucified are stigmatized as the worst of criminals in the gentile world and as cursed by God in Deuteronomic law. Even if mythicists were to protest (absurdly) that the earliest Christian leaders in Jerusalem, e.g., Peter, John, and James, and the later New Testament authors had rejected these Jewish views and embraced a radically new perspective, they cannot deny that the Jews to whom they preached had not. Moreover, there are additional items of embarrassing testimony that have a similar impact on these explanatory likelihoods, including the testimony of Matthew 3:1–17 that John baptized Jesus in a baptism for the repentance and forgiveness of sins and the testimony of Luke 7:28 that Jesus called John the greatest born of women. The earliest Christians had no motive to invent and preserve such reports, but would rather have motive to conceal, deny, modify, and repress them—particularly because they were in competition with the followers of John.

Let us now plug into Bayes's theorem the (conservative) prior probability approximations given above, i.e., 0.99 for $P(C_M|T_M)$ and 0.01 for $P(\sim C_M|T_M)$. We just said above that $P(T_E|T_M\&C_M)$ is much greater than $P(T_E|T_M\&\sim C_M)$. This means, minimally, that $P(T_E|T_M\&C_M)$ is 10 times greater than $P(T_E|T_M\&\sim C_M)$, i.e., that $P(T_E|T_M\&C_M) = 10 \times P(T_E|T_M\&\sim C_M)$. Thus we have:

$$P(C_M|T_M\&T_E) = \frac{0.99 \times 10 \times P(T_E|T_M\&\sim C_M)}{0.99 \times 10 \times P(T_E|T_M\&\sim C_M) + 0.01 \times P(T_E|T_M\&\sim C_M)}$$

$$= \frac{0.99 \times 10}{0.99 \times 10 + 0.01} \approx 0.999.$$

Of course, Law may protest that the values we have plugged into Bayes's theorem are too high. Suppose that we weaken these considerably. Then, as we shall now see, this move will not help Law, for the posterior probability $P(C_M|T_M\&T_E)$ will remain significantly greater than 0.5.

Let's briefly look at a few examples. Suppose that we assume prior probability values of 0.75 for $P(C_M|T_M)$ and 0.25 for $P(\sim C_M|T_M)$. Suppose also that $P(T_E|T_M\&C_M)$ is merely twice the value of $P(T_E|T_M\&{\sim}C_M)$, i.e., that $P(T_E|T_M\&C_M) = 2 \times P(T_E|T_M\&{\sim}C_M)$. Then we have:

$$P(C_M|T_M\&T_E) = \frac{0.75 \times 2 \times P(T_E|T_M\&{\sim}C_M)}{0.75 \times 2 \times P(T_E|T_M\&{\sim}C_M) + 0.25 \times P(T_E|T_M\&{\sim}C_M)}$$

$$= \frac{0.75 \times 2}{0.75 \times 2 + 0.25} \approx 0.86.$$

Suppose Law protests that $P(C_M|T_M)$ is only $2 \times P({\sim}C_M|T_M)$ and that the explanatory likelihoods $P(T_E|T_M\&C_M)$ and $P(T_E|T_M\&{\sim}C_M)$ are equal. Then even here we get:

$$P(C_M|T_M\&T_E) = \frac{2 \times P({\sim}C_M|T_M) \times P(T_E|T_M\&{\sim}C_M)}{2 \times P({\sim}C_M|T_M) \times P(T_E|T_M\&{\sim}C_M) + P({\sim}C_M|T_M) \times P(T_E|T_M\&{\sim}C_M)}$$

$$= \frac{2}{2+1} \approx 0.66.$$

One might even suppose, absurdly, that $P(C_M|T_M)$ is only $1.25 \times P({\sim}C_M|T_M)$ and that $P(T_E|T_M\&C_M)$ is also only $1.25 \times P(T_E|T_M\&{\sim}C_M)$. Yet even on these preposterously low comparative values, we still get a posterior probability of greater than 0.6. Given the strength of the considerations we have adduced above to justify assigning comparatively high values of 0.99 to $P(C_M|T_M)$ and $10 \times P(T_E|T_M\&{\sim}C_M)$ to $P(T_E|T_M\&C_M)$, the burden is on Law to justify assigning either of them (particularly the latter) lower values, e.g., the value of 1.25 just given to both in the example above. On any higher values, Law is simply wrong to claim that the evidence of the New Testament renders the existence of Jesus only (or at best) "a little more probable than not."

But, of course, this last observation is a bit anti-climactic. For $P(C_M|T_M)$ is certainly very high indeed—at least 0.99—and, thus, the lesson is clear: since $P(T_E|T_M\&C_M)$ is at least equal to $P(T_E|T_M\&{\sim}C_M)$, and is surely much greater, i.e., $P(T_E|T_M\&C_M) \gg P(T_E|T_M\&{\sim}C_M)$, it follows by Bayes's theorem that the probability of C_M is very high on our total evidence $T_M\&T_E$. Accordingly, the posterior probability $P(C_M|T_M\&T_E)$ is at least 0.99, and surely much greater.

While there may be no consensus regarding the *precise absolute* values that can be assigned to the components of Bayes's theorem, it is clear nonetheless from our discussion above what the *approximate comparative* values must be, and this is sufficient to make our general point: Law is wrong for all assignments of probability values—except those that are absurdly low. This shows that, whatever the exact degree to which $P(T_E|T_M\&C_M)$ is greater than $P(T_E|T_M\&{\sim}C_M)$, Law's *contamination principle* P2 is false in at least this one very important case—the existence of Jesus—and, thereby, that the conclusion of Law's argument, step 7, is false. It shows this because it is clear that, even when we condition on the total evidence that includes the testimony for extraordinary events, i.e., on $T_M\&T_E$, the degree to which it is rational to believe C_M, and, thus, J, is still very high. This is due to Bayesian "unweaving" of the "interwoven" testimonial "strands."

Law argued that we should be doubtful about the miracle claims of the New Testament and also, on this basis, that we should be at least somewhat doubtful about the existence of the historical Jesus. We have shown elsewhere that skepticism of the kind espoused by Law regarding the miracle claims of the New Testament (including the Resurrection) is justified when the principle that *extraordinary claims require extraordinary evidence* is interpreted in Bayesian terms. Defenders of New Testament miracle claims have not even attempted to provide the extraordinary evidence required to show that the explanatory likelihood ratio $P(E|B\&M)/P(E|B\&{\sim}M)$ is overwhelmingly top-heavy, for any New Testament miracle M—the only exception being the McGrews, who have tried but failed. However, Law's *contamination principle* P2 is *false*. Law maintains that the testimony for the mundane claim that Jesus existed is interwoven with the highly dubious miracle claims embedded in the rest of the New Testament testimonial evidence. Our Bayesian argument "unweaves" these "strands" of the total testimonial evidence and directly challenges the conclusion of Law's argument, showing (at least *prima facie*) that $P(J|T_M\&T_E) > 0.99$.[12]

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