other religions is that the criticisms made by religions against each other can, at their best, help each tradition to ensure that it is living up to its own telic vision.

Fleischacker's overall goal is to show how trust—faith—in what one takes to be a revealed text is perfectly sensible (indeed, even wise) and fits well alongside liberal morality and modern science. Although readers will no doubt be frustrated by some of the arguments, and find him overreaching in places, the book is clear, interesting, and absolutely worth reading. I was left eager to read the fuller version of the arguments in *Divine Teaching and the Way of the World*.

Taking Pascal's Wager: Faith, Evidence, and the Abundant Life, by Michael Rota. IVP Academic, 2016. Pp. 255. \$20.00 (paperback).

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The first thing to know about this book is that the subtitle—*Faith, Evidence* and the Abundant Life-is much more informative about the contents than the main title, Taking Pascal's Wager. The majority of the book isn't really about Pascal's wager at all. There is good old two-step natural theology arguments for the existence of God followed by Christian apologetics-and some really great case studies of persons of faith. Only the first relatively short section is directly on Pascal's wager: a chapter of preliminary concepts, a statement of the argument, and two chapters of objections and replies, including, especially the "many gods" objection. But since the problem of pluralism is hardly a specialist's objection, the argument really only gets stated in chapter 4, which completes Part I: Uncertainty and Commitment. A reader with much familiarity at all with the wager could skip the preliminary chapter as well as the first chapter of objections and replies. Part II: Evidence presents a lovely cosmological argument from possibility and necessity of the form that is neglected these days (including a helpful visual schema that I have myself used in classes for years). This is followed by a pretty standard design argument of the fine-tuning variety. There follow two arguments for specifically Christian theism and a single chapter discussing "counterevidence." Part II is more than twice the size of Part I, which contains the statement of Pascal's wager. The final section, Part III: Saying Yes to God, focuses on the lives of Dietrich Bonhoeffer, Jean Vanier, and Immaculée Ilibagiza, and is very edifying.

What ties the book together is that Rota conceives of his main argument as taking this form (from his Introduction).

pp. 147–153



Premise 1: If Christianity has at least 50% chance of being true, then it is rational to commit to living a Christian life (the conclusion of Part One).

Premise 2: Christianity does have at least a 50% chance of being true (the conclusion of Part Two).

Conclusion: It is rational to commit to living a Christian life.

It isn't stated here how Part III is meant to function, but intuitively it is an illustration of some of the claims about the this-worldly benefits of Christian commitment. Unfortunately, Rota is not sufficiently clear why he takes .5 to be so special. I'll return to this below.

Preliminary Notions. Rota's explanation of basic decision theory for laymen is generally clear and helpful. As he notes, we use common sense principles of decision making all the time that have their regimentation in formal decision-theoretic principles. Occasionally he will say "game theory" when he clearly means "decision theory," which is unfortunate, and it wasn't easy for me to tell why he included some technical terms, such as "weak dominance" (28) and yet doesn't give a formal definition for expected utility. Still, there are ample examples and he does a good job of warding off objections based on the use of monetary values by noting that they are only pedagogical idealizations. One of my favorite features of his presentation is related to this: he clearly has in mind that decision theory is a regimentation of commonsense reasoning and therefore formal decision theory is beholden to common sense in a way that common sense is not beholden to formal decision theory (at a given state of development). I think this would have been accentuated by a brief discussion of diminishing marginal utility in one of his examples, which would have fit into his exposition seamlessly.

Advancing the Argument. In a sense, chapter 2 ("Pascal's Wager: The Basic Argument"), is just setting things up for chapter 4, in that it presents a wager that squares of Christian commitment against the single option of naturalism, not non-Christian positions generally. It is in chapter 4 that he completes the argument with a compliment of other options. The structure of chapter 2 is predictable: Discuss each partition in the decision matrix—1. Wager and Christianity is true; 2. Wager and it is false; 3. Don't wager and it is true; 4. Don't wager and it is false. He then fills in the costs and benefits associated with each outcome.

A nice feature of this chapter is that Rota includes in the benefits (if Christianity is true) of wagering such humane goods as bringing joy to God and others who are happy to see us commit to following the path to God. Another he includes is that wagering makes us more likely to help others along the road to salvation (which is a good if Christianity is true), but he doesn't mention what he takes as evidence for this. That's unfortunate, since it's not perfectly obvious that actual believers do this more often than not. He also includes, what's often overlooked: the this-worldly benefits to the wagerer even of Christianity if false. Here, he canvases a considerable amount of empirical research showing that religious folks are happier. I do wonder, however, how well these studies, which are typically of outright believers, transfer to the unbelieving seeker or the one who "commits" to Christianity even without believing it (a very underdiscussed core notion of the book).

Here is one interesting but potentially very troublemaking feature of Rota's presentation: he doesn't assume that the wagerer goes to heaven if Christianity is true. He says only that wagering "maximizes chances at eternal life." Correspondingly, he doesn't say that not seeking God leads to Hell, but, rather, only that this "minimizes chance at eternal life." This is interesting because standard matrices for Pascal's wager put quantities of utility in the partition cells, usually represented by the infinity symbol, specifically assigning infinite positive utility to wager-and-it's-true and infinite negative utility to don't-wager-and-it's-true. This is (at least potentially) very troublemaking, because, according to Rota's outcome matrix, both wagering and not wagering have non-zero chance of obtaining eternal life. So if we assign that an infinite value, to get the expected value of wagering verses not wagering we have two quotients each of which we multiply by infinity. So both wagering *and* not wagering have infinite expected utility, if Christianity is true (and if Hell got infinite negative utility, the problem compounds). This makes trouble for Rota's claim that "Clearly outcome WC [you wager and Christianity is true] is much more valuable than outcome ~WC [you don't wager and Christianity is true]" (49). Unless some answer is forthcoming, this is devastating for Rota's version of the argument.

One way out of this would be to claim that heaven only has finite value (which is surprisingly plausible, actually). But then we need to know whether wagering doubles or triples the odds of gaining Heaven or what? It is unfortunate that Rota nowhere considers standard discussions of these problems, as there are possible solutions already in the literature (such as in Richard Jeffrey, *The Logic of Decision* [University of Chicago Press, 1980], 143; and George Schlesinger, "A Central Theistic Argument," in *Gambling on God*, ed. Jeff Jordan [Roman and Littlefield, 1994, 90]).

Here is another odd feature of Rota's presentation. He does well in arguing, essentially, from dominance concerns—where one strategy beats its rivals under all possible outcomes. He wisely doesn't fuss about near dominance and points out that something "near enough" is fine, so long as one strategy smashes its rival in one outcome and is not much the loser in others. Yet he puts it this way: "But even if one thinks the religious person misses out, all things considered, if naturalism is true . . . , it's still rational to commit to God so long as the difference . . . is small, *and the probability of Christianity is 50% or more*" (50, emphasis added). I just have no idea why the second conjunct is added. It isn't that what he says is false, but it generates the false implicature that it wouldn't be rational if the figure fell far short of 0.5. In the standard infinitary version of Pascal's wager it just has to be non-zero. In Rota's possibly finitary version, the value would be given by the ratio of the differences in outcome utility. If Christianity had a utility that was, say, exactly one order of magnitude greater than that of naturalism, then Christianity would just have to exceed 0.1 to be the best bet. So either the value just has to be greater than zero or it is set by the utility ratio. 0.5 just seems to come out of nowhere. I worry that the unsophisticated reader would (understandably) interpret Rota to be saying that 0.5 is somehow special, perhaps even inferring that the point is that you are allowed to believe something just because it is more likely than not. Or they might (understandably) interpret Rota to be saying that if Christianity is less than 0.5 probable then it is not rational to wager, which, given his intended utility assignments, would be false, and, worse, terribly misleading.

In these pluralistic times, no Pascalian Wager is complete without a codicil for the many gods objection. It bothered me that Rota uses both Jordan's "ecumenical wager" reply (Jeff Jordan, "The Many-Gods Objection," in in Gambling on God, ed. Jeff Jordan [Roman and Littlefield, 1994], 110) and "Schlesinger's Principle" (George Schlesinger, "A Central Theistic Argument," 90) without citing them. These two replies to the many-gods objection are well known and well-cited, so I don't understand why they weren't cited here. It also would have been more satisfying if there would have at least been a footnote to some additional related problems including the fundamentalist problem: ecumenical Christianity recognizes the possibility of salvation outside their denominations, but fundamentalist Christians teach that if you are of certain Christian denominations you will get eternal damnation. By adding in a chance at infinite disutility, even for the most probable theology, can cause problems. For then, rational risk aversion counsels commitment to the narrowest sect. Since the same chapter that discusses the many-gods objection discusses Calvinism at length (and the book is written by a Catholic) this would have been quite apropos.

Hiding from Hiddenness. The treatment of divine hiddenness is shockingly brief. He appeals to John Hick's notion of the need for "epistemic distance" (though he doesn't cite him or use that term), which says that God couldn't make himself perfectly clear without coercing belief. But it is not at all clear that this blunt argument survives careful scrutiny. Rota says "If God's existence were obvious to all, it would be hard for people to refrain from viewing God in Machiavellian manner, making the Ultimate End into a mere means to power and pleasure for the self" (144). This strikes me as a huge leap. First, I don't see what evidence there is for this. It's hard to even imagine what *could* count as evidence for it. Is the evidence supposed to be that among those to whom God's existence is obvious a high proportion think this way? But that doesn't seem to be true at all (and certainly won't be in Heaven). Furthermore, this gambit seems to fall prey to the criticism the main proponent of the argument from divine hiddenness, John Schellenberg, raises to a class of objections that forget or ignore that his argument is that God's perfect love entails universal *reasonable belief*, not obviousness or anything of that ilk (Schellenberg, "The Hiddenness

Argument Revisited (I)," *Religious Studies* 41: 201–215). Rota gives us instead a caricature of Schellenberg's argument, saying, "[T]here is a world of difference between a situation in which all know with certainty that the only way to happiness is with God, and our actual situation, where God remains hidden, at least for most people much of the time" (144). Schellenberg says nothing about certainty and is very, very explicit that he is interested only in belief (reasonable belief) as a logical prerequisite to having a certain kind of fulfilling relationship with God, one which, he adds, is plausibly more valuable than any of the proposed greater goods for the sake of which theists propose God hides.

Rota also leaves untouched another objection from Schellenberg ("The hiddenness argument revisited (II)," *Religious Studies* 41: 287–303). He calls out objectors to his argument for not even considering his "accommodationist strategy." According to it, the theist needs to show that the good secured by unbelief cannot also be had from within belief. He is clever at arguing, with surprising plausibility, that it is harder to do this than most theists think. It is a bit of a shame that we didn't get to see Rota at work at least addressing this objection briefly. Instead, he joins the mainline of Christian theists in remaining silent about it.

More broadly, that the two leading atheists, Paul Draper and Schellenberg, are neither mentioned in the text nor cited in the bibliography or footnotes is a bit of a travesty. By omitting these careful thinkers (especially while heavily using Plantinga, Swinburne, Stump, and van Inwagen) the reader could easily get a distorted picture of the lay of the literature. Because this book is published by IVP Academic, there is a special responsibility to guide readers in the literature. Such books form an important middle ground between the scholarly literature and popular books, which typically lack much by way of bibliographic data. (The excellent examples of Jim Sire, legendary former IVP editor, are still the gold standard in this regard.)

A Doubtful Defense. Rota says more about the problem of evil, but unfortunately perpetuates a non sequitur from Peter van Inwagen. It is a bit ironic, because the van Inwagen fallacy is committed through not thinking in probabilistic terms, and Rota spends a considerable amount of time in this book thinking probabilistically. Rota reproduces van Inwagen's penetrating and moving defense story from The Problem of Evil (Oxford University Press, 2008), which I take to be among the best things written on the problem of evil. But then he faithfully reproduces van Inwagen's deceptive binary statement of the upshot. Very briefly, it goes like this. This story in which there is consistently both a loving, all-powerful God and human suffering, is "a real possibility" and "may very well be true" (148). From this premise is drawn the following non sequitur: "Since an argument with a doubtful premise doesn't provide a good reason to accept its conclusion, the argument from evil doesn't provide a good reason to reject the existence of God" (149). Here's why this doesn't work. You should accept a proposition only if it rises above a certain degree of credibility. A

proposition may fall below that threshold of probability if its prior probability is below it and arguments don't raise it above the threshold. The general rule for assessing the credibility premises give to a conclusion in a logically valid argument is this: the improbability of the conclusion is the sum of the improbabilities of the premises. According to the van Inwagen line, the defense story is what renders the first premise of the argument from evil "doubtful." It does so because if the story is true a premise of the argument from evil is false, and in fact the story "may well be true." But to measure the degree to which the defense story renders the premise doubtful is determined thusly. Subtract from one the credibility of the story. Let's use 10% just for illustrative purposes. This means that the upper bound on the credibility of first premise of the argument from evil, and thus its conclusion, is 90%. But of course if it were 90% probable there were no God you might not be justified in "concluding" that there were not God, but it would still render belief in God unreasonable. The same goes for a value of 50%. So contrary to the argument Rota reproduces, the argument from evil can still be powerful in the face of an argument from evil with a "doubtful" premise. The exact same point applies to his treatment Stump's approach to evil.

Probability Problems. No review of a book that appeals so much to probability would be complete without some complaints about the author's use of probability. I found Rota's treatment of epistemic probability a bit odd at times. While Bayes's Theorem is a fine way to calculate the probability of a proposition at a given time given some evidence, it does not represent learning from evidence as perspicuously as conditionalization, which is easily derived from the Law of Total Probability, which is itself actually a lot more intuitive than Bayes's Theorem. This would have allowed Rota to discuss uncertain evidence and dispense with counterfactual talk of taking things as certain (see, e.g., 114–115). Also, the discussion of epistemic probability suffers a bit from lack of inclusion of the Principle Principle, which connects subjective degree of certainty to objective chance. This is especially so when Rota is explicating epistemic probability in terms of marbles and jars. Next, Rota seems to confuse the question of degree of evidential favoring with the absolute probability of a proposition at a time. He writes "But precisely how much does E favor H_{R} over H_{W} ? And at the end of the day, how confident should you be that you drew from the urn with ninety red marbles?" (115). The ensuing discussion, however, treats these questions as equivalent. The literature on confirmation theory is awash with different accounts of what favoring is and also with different accounts of how to measure it. In all cases, these questions are separate from the question how confident one should be at a time given an item of evidence.

Finally, when giving an example of how to actually apply Bayes's Theorem, Rota tacitly applies the Theorem of Total Probability by, in essence, forming a simple partition of E. But his partition is into Red and White rather than Red and not-Red (as he does in a footnote later in the chapter [n. 4]). This might seem like an especially trivial criticism, but a simple footnote could have explained the importance, been more consistent, and more perspicuously revealed that he was applying the law of total probability. It would have added only a few lines to the exposition—which is already moderately technical—and been much more elegant.

Conclusion. To return to the unusual relationship between the title, subtitle, and contents, it seems clear to me that the best parts of the book are those that have the least to do with Pascal's Wager. I found the largest section of the book-the natural theology and Christian apologetics (approximately 100 pages)-pretty tight and convincing. I found the final section (57 pages) on the lives of three holy individuals moving. I found the first section, the shortest (44 pages) on Pascal's wager the least satisfying, but my complaints were pretty nitpicky. There is no question in my mind that someone could benefit from reading that section. My complaints were based the fact that the publisher has "Academic" in its title and that this review is being published in an academic journal. Bridging the gap between primary scholarship and the "lay reader" (as IVP Academic and Rota clearly have in mind) is very hard and full of pitfalls. (I found the citation practices very uneven. In a book with 272 endnotes, the half-dozen or so I found badly wanting would not have busted the budget.) I believe the mission of such publications is crucial, that Rota is a great candidate to do it, and that he pulled it off pretty well, since his central argument is, I think, sound, and most readers will not notice the problems I've raised.