

2011

On the Validity of Pascal's Wager

Antony Aumann

Northern Michigan University, aaumann@nmu.edu

Follow this and additional works at: <http://commons.nmu.edu/facwork>



Part of the [History of Philosophy Commons](#), and the [Metaphysics Commons](#)

Recommended Citation

Antony Aumann, "On the Validity of Pascal's Wager," *The Heythrop Journal*, Online First DOI: 10.1111/j.1468-2265.2011.00717.x

This Conference Paper in Published Proceedings is brought to you for free and open access by The Commons. It has been accepted for inclusion in Faculty Works by an authorized administrator of The Commons. For more information, please contact kclumpne@nmu.edu, kmcdonou@nmu.edu, mburgmei@nmu.edu, bsarjean@nmu.edu.

ON THE VALIDITY OF PASCAL'S WAGER

I. INTRODUCTION

It is sometimes said that Pascal's wager is valid. The battle is over the truth of its premises, not whether its conclusion follows from them.¹ I wish to raise and then to respond to one possible reason for thinking that this claim is false – that Pascal's argument is not valid after all.

We can begin with the conclusion of the wager. It states, quite plainly, that we should 'wager for God'. At least in part, this means that we should form the belief that God exists. Yet not directly, as we are frequently told. Pascal's reasoning shows at best that belief in God is pragmatically desirable. And Pascal concedes that we cannot always form a belief simply because we desire to do so.² Thus, to say that we should wager for God is taken to mean that we should *act like believers* in the hope that genuine belief will indirectly result.

But there is more to the story here. Wagering for God is not a task you can perform once and for all, after which you can do whatever you please. Nor is it a project you can undertake on and off, now and then, perhaps on high holidays. No, as Alan Hájek notes, "wagering for God" is an *ongoing* action—indeed, one that continues until your death—that involves your adopting a certain set of practices and living the kind of life that fosters belief in God'.³ Jeff Jordan concurs. He asserts that to wager for God is 'to commit to God' in a wholehearted way such that one 'reorient[s] one's goals, and values, and behavior by including the proposition that God exists among one's most basic values and beliefs'.⁴ To summarize, wagering is not a tentative affair. It requires approximating

if not instantiating the unwavering devotion to God we find in the most recognized paradigms of faith, the saints and the martyrs.⁵

The question I will investigate is whether the resources marshaled by the Pascalian can provide a sufficient rational basis for this kind of behavior. *Prima facie*, they cannot. Recent scholarship has shown that even the most compelling versions of the wager have unstable premises. Their truth depends on what probability we assign to the existence of various gods, what theology we find most compelling, and even what religion we think will provide us with the greatest happiness in this life. Rational judgments concerning these matters are subject to change over time. Consequently, it is possible for someone to find the wager persuasive initially, only to reconsider shortly thereafter, all the while living up to the demands of reason. A foundation this precarious is incapable of supporting a commitment as steadfast as the one described above. For if the argument can fall through at any moment, and the commitment is rationally based upon the argument, then the commitment can fall through at any moment.⁶ Or so it would seem.

This objection is not new.⁷ But it has not been taken seriously enough. More importantly, it has not been adequately answered. Such are the tasks I aim to accomplish in this paper.

II. THE INSTABILITY OF THE WAGER

The following constitutes a more or less standard formulation of the argument:

1. Rationality requires you to assign a positive probability to God's existence.
2. The decision matrix is as follows:

	God exists	God does not exist
Wager for God	∞	f_1
Wager against God	f_2	f_3

Here f_1 , f_2 , and f_3 are finite utility values that need not be specified any further.

3. Rationality requires you to perform the act of maximum expected utility (when there is one).
4. Therefore, rationality requires you to wager for God.⁸

Objections to the premises of this version of the wager are legion. So too are corresponding rebuttals. But whether the objections win out or the rebuttals defuse them is not at issue here. Instead, I wish to point out that, even if the rebuttals succeed, even if they disarm the standard barrage of objections, many of them have a troublesome side effect. They introduce considerations that depend on the circumstances of the wagerer. These circumstances can change over time, even as the result of mundane events in everyday life. Thus, the rebuttals involve reformulating the wager in such a way that the grounds it provides for entering into the religious life become unstable. The following three examples illustrate the point.

(1) Consider the many-gods objection. It proceeds by pointing out that Pascal oversimplified matters when he said: 'Either God is or he is not'.⁹ There are many gods that enjoy at least some possibility of existence. More than one of them promises an infinite reward in return for our devotion. As a result, more than one religious option has

an infinite expected utility. (Since expected utility is calculated by multiplying the payoff by the probability of the payoff, even a slight chance at an infinite payoff results in an infinite expected utility.)

Other complexities arise here as well. There might be a god who rewards the atheist or the agnostic. In fact, any imaginable religious or non-religious activity might have a patron deity.¹⁰ Thus, every option carries with it an infinite expected utility. However, on standard decision-theory frameworks, we are supposed to be indifferent between options that carry identical expected utilities.¹¹ We consequently find ourselves in the situation of Buridan's ass, unable to decide on rational grounds which way to go.

One way to address this problem is to appeal to what Jordan calls 'the Next Best Thing rule'.¹² The rule states that if the best outcomes of the available options are the same and the worst outcomes of the available options are also the same, we should choose the option that fares best when neither the best nor the worst outcomes obtain. In the case at hand, this means that we should investigate how things go if no gods exist and thus no infinite payoffs are to be had or lost. In other words, we should think about the wager from the point of view of the here and now, restricting our attention to 'finite terrestrial payoffs'.¹³

Yet how any given option fares from a this-worldly perspective, and thus which option fares best, is situation-specific. For example, Judaism probably fares better in the United States today than it did in Babylon during the time of the captivity. Atheism probably fares better in more cosmopolitan regions of the world than in those where its adherence results in social ostracism or worse. Similar differences likely exist on the micro level. A particular profession, social circle, or family may be more or less

hospitable to a particular lifestyle. Finally, individuals may find themselves to be exceptions to any general trends. The upshot is that ‘the Next Best Thing rule’ may recommend different options for different people. More importantly for our purposes, it may recommend different options for the same person at different points in time—and it may do so simply because the person has moved or found a different job.

(2) Suppose for the sake of argument that we have settled on one particular religious option, say wagering for the Christian God. There is reason to think that we still face something of a Buridan’s Ass situation. As Antony Duff and Alan Hájek point out, *every* course of action has some probability, however small, of resulting in the relevant kind of belief.¹⁴ Even if I choose something completely unrelated to wagering for the Christian God, even if I head in the opposite direction, doing so still might lead me there in the long run. But since wagering for the Christian God has the promise of an infinite payoff, the fact that every course of action might lead there means that every course of action has an infinite expected utility. Thus, once again, the wager does not allow us to discriminate between the alternatives we face.

George Schlesinger’s response to this objection is to make use of a non-standard decision-theoretic principle.¹⁵ He begins by acknowledging that, when dealing with *finite* values, we must be indifferent between alternatives that carry the same expected utility. However, this standard rule does not apply when dealing with *infinite* values. Here we are permitted to rank options that have identical expected utilities. In fact, we should choose the option most likely to secure the reward.¹⁶

This response makes a good bit of sense. In addition, it takes many options off the table. Doing something completely unrelated to wagering for the Christian God is not

very likely to result in belief. Thus, it is not very likely to secure the reward for doing so. A more direct approach will have a greater chance of success.

Nevertheless, there is a problem here, namely there are many ways to proceed directly. Indeed, there are as many ways as there are different theologies describing the mechanism of salvation. For each such theology will offer its own account of what we need to do to be saved.

Schlesinger's principle in effect recommends that we embrace the theology we consider most likely to be true. Yet, this judgment too is not a stable matter. A rational judgment will depend on the available evidence. The available evidence can vary from one person to the next. More significantly, it can vary over the course of any one person's life. At one point in time, it might support a Roman Catholic theology. At another, that of the Southern Baptist Church. Something rather banal, such as perusing a new book at the library, could effect such a shift. It follows that rather mundane events can result in the wager recommending a different course of action for someone than it currently does.

(3) Another objection to the wager concerns its appeal to infinite payoffs. Many have thought that such payoffs are inconsistent with standard formulations of decision theory.¹⁷ Others have speculated that finite human beings cannot enjoy them.¹⁸ Finally, infinite payoffs seem to be the real culprit behind the objections described above. It is only because the potential payoffs are infinite that worshipping any one god, no matter how bizarre, has the same expected utility as worshipping any other.¹⁹ And it is only because the potential payoffs are infinite that turning away from God has the same expected utility as devoting oneself to him. Thus, it is sometimes urged that advocates of the wager should refrain from using infinite payoffs. They should assign a finite value to

the reward enjoyed by true believers – yet one so great that it still swamps all competing values.²⁰

However, when the payoffs are finite, probabilities matter.²¹ First, the probability of God's existence must not be too low. If it is, the magnitude of the reward received in the afterlife will be negated. Consequently, atheism might win out. Second, the probability of the Christian God's existence must be greater than that of the Muslim God's. Moreover, it must be greater than that of any other god's. If it is not, and if we make the plausible assumption that all gods offer equal compensation for our devotion, then wagering for the Christian God will not have the greatest expected utility. Following some other god will be equally if not more prudent.

These considerations restrict the reach of the wager. To wit, it will work only for those who make the aforementioned probability assignments.²² But whether any given person does so depends on his or her individual circumstances. This is true even if people are ideally rational. Rational probability assessments are supposed to be based, at least in part, upon the available evidence. And, as noted above, different people may have access to different evidence. More importantly, any one person may have access to different evidence at different points in time. The evidence available to me right now might indicate that a 50/50 probability assignment for God's existence is warranted. Next week I might attend a conference that provides me with new data – data that suggests such a probability assessment is far too optimistic. If so, I will move from being within the wager's reach to being beyond it. Similarly, the evidence to which I currently have access might speak in favor of the Christian God. Yet, upon further investigation, I might

discover that there is greater support for the existence of Allah or Vishnu. If I do, the wager will tell me to embrace a different religion.

III. THE APPARENT PROBLEM WITH AN UNSTABLE WAGER

To recap, on the most plausible ways to reconstruct Pascal's wager, the argument is *unstable*. Rescuing it from some common lines of objection requires introducing considerations that depend on the circumstances of the wagerer. These circumstances can change over time. More to the point, they can change in such a way that the argument no longer goes through. Thus, even if the argument works now, it might not at some point in the future. And the transition from success to failure can occur because of a trivial event, such as moving to a neighborhood less tolerant of theism or perusing a book on Christian theology at the local library.

By contrast, the religious way of life that Pascal's wager recommends is supposed to be *stable*. It is not supposed to waver in response to the mundane vicissitudes of everyday life such as moving, changing jobs, attending conferences, and the like. We cannot take this point lightly. Steadfastness is often viewed as a constitutive feature of the religious life. Many scholars and devotees consider a faith open to revision to be unworthy of the name.²³ Even putting aside this point about religious grammar, religions typically *call* for resoluteness.²⁴ And Pascal's wager traditionally has been construed as an attempt to provide grounds for answering this call.²⁵

In sum, the precarious nature of the wager does not match the steadfast nature of the course of action it recommends. Robert Adams has argued that this kind of incongruity is problematic.²⁶ We can adapt what he says to our present purposes:

Consider the person who becomes religious on the basis of a contemporary version of Pascal's wager. How is such a person going to react in the event that the wager falls through? What will he or she do if circumstances in his or her life change and as a result the decision calculus now supports a non-religious lifestyle?

There are two options. The person can either abandon the religious way of life or stick with it. Both are problematic. On the one hand, abandoning God reveals that the person was not committed to God in the relevant way. He or she did not possess the unwavering devotion to God exemplified by the saints and the martyrs. On the other hand, continuing to pursue God reveals that the person does not base his or her religious commitment entirely on the wager. For his or her faith would persist even if the wager collapsed. Therefore, by constructive dilemma, the wager cannot provide a sufficient reason for becoming religious in a wholehearted fashion. Since the conclusion of the wager states that we should become religious in that fashion, it follows that the wager is invalid. Or so it seems.²⁷

IV. AN UNSTABLE BASIS FOR A STABLE COMMITMENT

I think we can save Pascal's wager from this objection. I believe a sophisticated kind of stable commitment can have an unstable foundation. The example of marriage illustrates how the setup might work.

People get married for a variety of reasons. One does it for love, another for money, a third to raise a family, meet social expectations, or secure some disjunction of the above. These are precarious grounds. People fall out of love or grow apart; sources of money dry up; infertility afflicts many; and social expectations change. Despite all of

this, marriage is supposed to be an unconditional affair. The traditional vows state that both parties are to remain faithful in good times and in bad, in joy and in sorrow, in sickness and in health, for richer or for poorer...until the point of death. Thus, we once again face an unwavering commitment built upon a precarious foundation. Yet the commitment here can be fully rational. Let me explain why.

We can think of getting married as tantamount to crossing a point of no return.²⁸ What is interesting about points of no return is that there is a difference between the rationale for crossing them and the rationale for continuing on after having crossed. The former can be and often is unstable. It frequently involves the pursuit of ends that may disappoint or never materialize. The latter, however, always includes the incontrovertible fact that one cannot go back. This fact invariably provides a sufficient justification for continuing on.

Thus, there are two deliberative stages. At the first stage, one decides whether to cross the point of no return. The lure of some good lying on the far side may prompt an affirmative response. Of course, there is often no guarantee that the good in fact resides there. Crossing the point of no return in these cases constitutes a gamble. One may not obtain what one seeks. Still, given the appropriate expected utilities, taking the gamble may be reasonable. At the second stage, one decides whether to remain on the far side after having crossed the point of no return. There is little need for actual deliberation here. Only a single option exists. One must remain; one cannot go back. Therefore, by taking a reasonable gamble, one can put oneself in the position of having to commit unconditionally to a particular option.

We can put the point in terms of marriage by saying that, once the vows have been taken, they retain their moral force no matter what. Most conspicuously, they remain morally binding even in the event that our reasons for taking them in the first place collapse – even if we have fallen out of love, lost our money, cannot have children, and see no prospect of future happiness together. After all, taking the traditional vows involves asserting that one will remain faithful *even in these sorts of situations*. Therefore, regardless of why we got married or what has happened since then, we always have a sufficient reason to stay married, namely we have promised to do so.

The example of marriage and the more general phenomenon of crossing points of no return show us that having an unstable basis for a stable commitment is logically coherent. Therefore, if we think of wagering for God as akin to taking the marital vows or to crossing a point of no return, we can escape the objection outlined in the previous section.

There is nothing idiosyncratic about this move. At least within Christianity, we find rites of conversion that include something analogous to the public promise that takes place in a marriage ceremony. Consider, for example, the sacrament of confirmation within the Catholic tradition and profession of faith within Protestant traditions. Wagering for God on my account would *inter alia* involve engaging seriously in such a practice.

V. THE THREAT OF A BAD MARRIAGE

There is a potential problem. Wagering for God in the manner just described carries with it the risk of a ‘bad marriage’. One might end up having to live with a religion that one no

longer recognizes as rationally desirable – i.e. a religion that one would not select if one could choose all over again knowing what one now knows. This situation would result in much unhappiness. Indeed, if the saying about bad marriages is trustworthy, nothing is worse.

The prospect of a ‘bad marriage’ seems not to arise if one wagers against God instead of for him. Why not? Simply put, there is no clear reason why the atheist must wager in a non-tentative fashion. Atheism does not obviously demand the kind of unwavering commitment that theism does. Thus, if theism suddenly becomes rationally desirable, the atheist can always pack his or her bags. Conversion is always a legitimate option.

This fact shifts the balance of expected utility by some finite degree in the direction of wagering for atheism. Of course, a finite change will not affect the standard version of the wager described at the outset of the paper. The infinite utilities at stake there will swamp such considerations. However, versions of the wager that deal strictly with finite utilities or that traffic in terrestrial payoffs will suffer. How much so depends on the likelihood that a ‘bad marriage’ will arise. If the probability is quite high, the increase in support of atheism will be substantial. If the probability is quite low, the effect will be negligible.

There is reason to think that the probability should be on the low side. Returning to our discussion of marriage will help us to see why. In the ideal case, the committed spouse does not second-guess his or her commitment. He or she does not wander around wondering whether someone else might have made a better match or pondering whether bachelor(ette)hood might have been the way to go. Pursuing these lines of thought will

tend to undermine the marital relationship. It will tend to disclose considerations that must be overlooked if the relationship is to flourish. As such, it is the sort of thing that the ideal spouse has committed not to do. For implicit in the marital vows is the promise to avoid that which will erode the marital relationship and pursue that which will bolster it.²⁹ All of this suggests that the ideal spouse is not very likely to become aware of reasons for thinking his or her marriage is a bad one. He or she is simply not looking for them and, in fact, is looking in a different direction.

Something similar holds in the case of the ideal wagerer. Prior to making the wager, he or she may devote much reflection to the merits of doing so. But once the wager is made, a shift in attitude takes place. He or she no longer focuses on *whether* wagering is warranted but on *why* it is so. That is to say, he or she looks for considerations that further support his or her commitment to God, not ones that might undermine it. Indeed, doing so is part of remaining faithful to that commitment. As a result, the ideal wagerer is not very likely to arrive at the conclusion that he or she is ill wed to the religious life. For he or she continually works in the opposite direction.

If this is correct, we need not worry very much about the threat of a 'bad marriage'. The degree to which its mere possibility shifts the expected utility in favor of atheism is minimal. Thus, interpreting the conclusion of Pascal's wager as analogous to marital commitment or crossing a point of no return enables us to explain how the wager can be valid despite the incongruity between its unstable premises and the stable course of action it recommends.

Notes

¹ Ian Hacking, 'The Logic of Pascal's Wager', in Jeff Jordan (ed.), *Gambling on God: Essays on Pascal's Wager* (Lanham, MD: Rowman and Littlefield Publishers, 1994), pp. 21-9. Cf. Alan Hájek, 'Waging War on Pascal's Wager', *Philosophical Review* 112:1 (2003), p. 30.

² Blaise Pascal, *Pensées*, tr. A. J. Krailsheimer (New York: Penguin, 1995), §418. See also Ward E. Jones, 'Self-Deception, Religious Conversion, and Pascal's Wager', *Journal of the History of Philosophy* 36:2 (1998), p. 174.

³ Hájek, 'Waging War on Pascal's Wager', p. 28.

⁴ Jeff Jordan, *Pascal's Wager: Pragmatic Arguments and Belief in God* (Oxford: Oxford UP, 2006), p. 19.

⁵ See Robert McKim, *Religious Ambiguity and Religious Diversity* (Oxford: Oxford UP, 2001), pp. 159-60.

⁶ There is a trivial sense in which *any* commitment can fall through at any moment. Nothing forces us to follow the dictates of reason and we can always irrationally abandon our commitments. I ignore this possibility for the sake of simplicity.

⁷ See Jordan, *Pascal's Wager*, pp. 67-8, 131-2. Analogous concerns may plague other theistic arguments. However, the problem is especially pressing in the case of Pascal's wager. The premises of the wager are unusually unstable. As I will argue, they turn on the vicissitudes of everyday life in a way that the premises of most other theistic arguments do not.

⁸ Hájek, 'Waging War on Pascal's Wager', pp. 27-8. The expected utility for any given course of action is calculated by using the following simple formula:

$$\text{Expected Utility} = \text{Probability} \cdot \text{Payoff}$$

Using the provided decision matrix and letting p be our positive probability for God's existence, we get:

$$\text{Expected Utility (wager for God)} = \infty \cdot p + f_1(1 - p) = \infty$$

$$\text{Expected Utility (wager against God)} = f_2 \cdot p + f_3(1 - p) = \text{some finite value}$$

Note that for the sake of simplicity this version of the wager ignores the possibility of hell. For other ways to construct the wager, see Hacking, 'The Logic of Pascal's Wager', pp. 22-7 and Jordan, *Pascal's Wager*, pp. 19-26.

⁹ Pascal, *Pensées*, §418.

¹⁰ For a discussion of the importance of outlandish gods, see Alan Carter, 'On Pascal's Wager, or Why All Bets are Off', *The Philosophical Quarterly* 50:198 (2000), pp. 22-7 and Paul Saka, 'Pascal's Wager and the Many-Gods Objection', *Religious Studies* 37 (2001), pp. 321-41.

¹¹ Edward F. McClennen, 'Pascal's Wager and Finite Decision Theory', in Jordan (ed.), *Gambling on God*, p. 126.

¹² Jordan, *Pascal's Wager*, pp. 14-5, 27-9, 89.

¹³ Roy A. Sorensen, 'Infinite Decision Theory', in Jordan (ed.), *Gambling on God*, p. 145.

¹⁴ Hájek, 'Waging War on Pascal's Wager', pp. 27-56 and Antony Duff, 'Pascal's Wager and Infinite Utilities', *Analysis* 46 (1986), pp. 107-9.

¹⁵ George Schlesinger, *New Perspectives on Old-Time Religion* (Oxford: Clarendon Press, 1988), p. 154. See also Schlesinger, 'A Central Theistic Argument', in Jordan (ed.), *Gambling on God*, pp. 90, 97.

¹⁶ Ibid. See also Jordan, *Pascal's Wager*, p. 104.

¹⁷ See, for example, McClennen, 'Pascal's Wager and Finite Decision Theory', pp. 124-6 and Gregory Mougin and Elliot Sober, 'Betting against Pascal's Wager', *Noûs* 28:3 (1994), p. 394n10.

¹⁸ See Hájek, 'Waging War on Pascal's Wager', pp. 48-9 and Jordan, *Pascal's Wager*, pp. 140-3.

¹⁹ Jordan, *Pascal's Wager*, p. 123

²⁰ Jordan, *Pascal's Wager*, p. 30.

²¹ In a sense, probabilities always matter. If the probability that God exists is zero, then even an infinite version of the wager fails.

²² Jordan, *Pascal's Wager*, pp. 108, 135-6. Cf. Raymond J. VanArragon, 'Review of Jeff Jordan: *Pascal's Wager: Pragmatic Arguments and Belief in God*', *Faith and Philosophy* 26:2 (2009), p. 208.

²³ McKim, *Religious Ambiguity and Religious Diversity*, pp. 159-61.

²⁴ McKim, *Religious Ambiguity and Religious Diversity*, pp. 161-4.

²⁵ For example, Hájek, 'Waging War on Pascal's Wager', p. 28 and Jordan, *Pascal's Wager*, p. 19.

²⁶ Robert Merrihew Adams, 'Kierkegaard's Arguments against Objective Reasoning in Religion', in Steven M. Cahn (ed.), *Ten Essential Texts in the Philosophy of Religion* (Oxford: Oxford UP, 2005), pp. 325-8.

²⁷ This potential problem does not only afflict Pascal's wager. Any attempt to base an unconditional commitment to God on an argument containing unstable premises will suffer from it. The solution I propose in the next section will also work in these other contexts.

²⁸ At least we can think of it as crossing a point beyond which returns are hard to come by. Few people think of marital vows as truly unconditional commitments. Allowances for physical and emotional abuse, adultery, etc. are typically made. However, this consideration does not damage the spirit of my argument. It goes through even if we make all of the relevant qualifications.

²⁹ Of course, there is no guarantee a person will do these things. But that just means there is no guarantee a person will act in a rational or moral fashion. Out of weakness of will, self-deception, or viciousness he or she may fail to do what he or she has promised to do.