

Article

Combinatorial Axiology and the Problem of Evil

Elliott R. Crozat 

Department of Humanities and Social Sciences, Purdue University Global, 2550 North-West Avenue, West Lafayette, IN 47906, USA; ecrozat@purdueglobal.edu

Abstract

In this article, I argue that the probabilistic argument from evil rests on an assumption that weakens its conclusion. The argument presupposes epistemic conditions that we are not in a position to meet. I use combinatorial axiology to show that the world's axiological profile is unknowable to humans, and that this fact significantly weakens the probabilistic argument. I do not contend that the probabilistic argument is refuted, but only that the version I address is undercut. To my knowledge, this is the first application of systematic combinatorial axiology against the probabilistic argument.

Keywords: combinatorial axiology; problem of evil; skeptical theism; world axiology; philosophy of religion

1. Introduction

In this article, I contend that the probabilistic argument from evil (PAE) oversteps its epistemic support. The argument presupposes a claim about world-level axiology. This undefended claim weakens its force. I do not hold that my argument defeats the PAE, but that it undercuts it. In other words, the PAE presupposes epistemic conditions that we are not in a position to meet. As such, the probabilistic strength of the PAE is reduced. My argument is an attempt at what might be called 'world-level combinatorial axiology.'

The world contains a complicated nexus of values and disvalues—including past goods and evils, hidden values and disvalues, and the possibility of goods and bads not yet actualized. The existence of this nexus presents us with a difficult problem of combinatorial optimization (CO); this problem poses a challenge for the PAE, plausibly rendering it intractable and thus unreliable, i.e., the axiological status of the world is for humans something like a combinatorial explosion, which occurs when the number of factors and the complexity of their combinations in a system increases rapidly to the point that computation becomes intractable. The solution to a combinatorial explosion is unmanageable and thus unavailable for humans. We cannot know every good and bad that there is, nor can we know the specific value or disvalue of each, how they relate to one another, and how they influence the value of the world as a whole. We are only aware of a small part of the axiological profile of the world. The system is too vast and complicated for us to understand. Hence, we are not in the epistemic position to assess reliably that the world is negative in overall value. Insofar as the PAE holds that the world is negative in value, my argument highlights a weakness of the PAE.¹

2. What Is the PAE?

It is standard to distinguish the logical argument from evil (LAE) from the PAE. In the former, the proponent tries to show that it is logically impossible for God and evil to



Academic Editor: Xiaojun Ding

Received: 21 May 2026

Revised: 22 July 2026

Accepted: 24 July 2026

Published: 26 July 2026

Copyright: © 2026 by the author.

Licensee MDPI, Basel, Switzerland.

This article is an open access article distributed under the terms and conditions of the [Creative Commons Attribution \(CC BY\)](https://creativecommons.org/licenses/by/4.0/) license.

coexist. In the latter, while the possibility of this coexistence is granted, the existence of evil is claimed as inductive evidence against theism.² According to this method of argument, the data of evil indicates that it is to some degree probable that God does not exist. I will work with the following conception of epistemic probability:

p is epistemically probable for S = Df S is more justified in believing that p than in believing the negation of p , given S 's access to background information K which evidentially supports p , and given the degree of support K provides for p .

Advocates of the PAE generally contend that certain kinds or quantities of evil render God's existence epistemically unlikely. For example, Rowe (1979) argued that the fact of gratuitous evil justifies atheism. Van Inwagen (2001), though not an advocate of the PAE, distinguishes between an argument about the vast number of horrendous evils in the world and an argument about a particular horrendous evil in the world. Elsewhere (Van Inwagen 2023), he addresses a range argument which holds that if there is a God, the amount of evil in the world falls within a reasonable range, but since the amount of evil in the world does not (or probably does not) fall within such a range, there is no God (or probably is no God). Draper (1989) maintains that the "hypothesis of indifference" (HI) is a better explanation of the human condition (as well as the condition of non-human animals) than is the hypothesis of theism. According to HI, "neither the nature nor the condition of sentient beings on earth is the result of benevolent or malevolent actions performed by non-human persons." (p. 332)

Responses applicable to the PAE include the "noseeum" reply (Plantinga 2000), soul-making theodicies (e.g., Hick 1966), and skeptical theism (e.g., Wykstra 1984, 2017a, 2017b). In response to Rowe, Plantinga writes: "I look inside my tent: I don't see a St. Bernard; it is then probable that there is no St. Bernard in my tent. That is because if there were one there, I would very likely have seen it; it's not easy for a St. Bernard to avoid detection in a small tent. Again, I look inside my tent: I don't see any noseeums (very small midges with a bite out of all proportion to their size); this time it is not particularly probable that there are no noseeums in my tent—at least it isn't any more probable than before I looked. The reason, of course, is that even if there were noseeums there, I wouldn't see 'em; they're too small to see. And now the question is whether God's reasons, if any, for permitting such evils . . . are more like St. Bernards or more like noseeums." (Plantinga 2000, p. 497) Wykstra argues that human beings are not epistemically situated to determine whether or not an instance of suffering is gratuitous. As he puts it, skeptical theism makes two claims. "The first claim is that if God does exist, we humans should not expect to see or grasp very much of this God's purposes. The second is that once we take measure of this, we can see that many things that might seem to be strong evidence against God aren't strong evidence at all." (Wykstra 2017a, p. 109).³ For discussion of objections to skeptical theism, see Almeida and Oppy (2003) and Dougherty and McBrayer (2014). Almeida and Oppy raise the concern that skeptical theism undermines ordinary human moral reasoning. Dougherty and McBrayer edit a series of essays, some of which explore the concern that skeptical theism supports religious or moral skepticism.

I do not attempt to summarize or assess these disagreements. Rather, my goal is to examine a presupposition shared by various versions of the PAE: roughly, that humans enjoy an epistemic position that enables us to make reliable world-level axiological judgments. My argument in this paper is similar to skeptical theism with respect to the idea of human epistemic limits, but different in terms of scope, motivation, combinatorial argumentation, and axiological ramification. My argument is different in the sense that I am concerned with the axiological structure of the world as such, as well as the human capacity to grasp it. I am not primarily concerned in this paper with whether or not humans can grasp

God's reasons for permitting particular evils, or the world's range of evils, or with the implications of taking various positions on such matters.

3. Combinatorial Optimization and Knapsack Problems

The effort to weigh goods against evils in order to measure the nexus of value in the world *in toto* is like a highly complicated 0/1 knapsack problem, which is classically NP-hard. The 0/1 knapsack problem is a problem in CO, which is a branch of applied mathematics relevant to computer science, decision theory, and other disciplines. CO involves the process of finding an optimal solution given finite sets of values, constraints, variables, and possible solutions in a limited domain. The larger the domain and the more options and values available, the more difficult the process of optimization becomes. If the complexity becomes intractable for human understanding, then the problem is a combinatorial explosion.

According to the 0/1 knapsack problem, given a set of n items—each of which has a precise value v and weight w —and a knapsack with a precise weight limit (i.e., carrying capacity) W , one has the goal of placing items in the knapsack in a manner that maximizes the cumulative value V of items while not exceeding W . For each item, one either chooses it in whole or declines it in whole—hence, the “0/1” characteristic of the problem, which refers to its binary logic. Items cannot be split or selected in percentages.

For example, suppose Jones is shopping for supplies for his daughter to prepare for the start of the elementary school year. Jones purchases a backpack with W of ten pounds. Jones then attempts to fill the backpack with pencils, erasers, paper, binders, and notebooks. Each item has a precise w and v . No item can be divided; each must be selected or rejected in its entirety. Jones seeks to maximize V without exceeding W , thereby equipping his daughter in optimal fashion for the first day. To complete this task, Jones needs to know w and v for each item. He needs to know W , and he must know the number of items he can fit in the backpack. With this information, he can calculate V .

In principle, 0/1 knapsack problems are solvable. For instance, one can construct a matrix to account for the items, weights, and values; mathematical calculation manages the rest. However, a solution requires that, for any subject S , S knows the exact weight limit of the knapsack, the precise value and weight of each item, the exact number of items in the set, their relations, and the combinatorial alternatives.

4. Knapsack Problems and the PAE

How is the knapsack problem relevant to the PAE? To start, we will benefit from an axiological world-classification system. Such a system enables us to see the axiological significance of the PAE and our epistemic situation with respect to it. Consider the following system. For any possible world, the world as a whole is either an axiologically positive world (APW), an axiologically negative world (ANW), or an axiologically neutral world (ANTW). An APW is one in which its objective goods outweigh its objective bads in a manner that is both quantitatively and qualitatively appropriate. Alternatively, an APW is one which is objectively worthy of or fitting for being endorsed. An ANW is one in which its objective bads outweigh its objective goods; an ANW is one which is objectively worthy of or fitting for rejection. An ANTW is one in which its objective goods and bads are equally opposed, making the world axiologically counterbalanced; i.e., it is neither worthy of endorsement nor rejection. According to the classification system, at the ontic level every possible world is either an APW, an ANW, or an ANTW.⁴

The PAE presupposes that God would not create a world with a certain bad-making property, such as too many cases of evil, or gratuitous evil, or horrendous evil, or the like.⁵ I will use ‘ANW’ to denote a world which includes the unacceptable bad-making property

with which the PAE is concerned. In short, the PAE advocate argues as follows: given that an ANW possesses an unacceptable bad-making property, an ANW is not worth creating.⁶ Accordingly, the PAE holds that God would not actualize an ANW.⁷ With this point in mind, consider the following value assumption: God would not actualize an ANW. Now consider the following version of the PAE:

1. God would not actualize an ANW. (Value Assumption) 2. Therefore, if God exists, the actual world is not an ANW. (From 1) 3. Probably, the actual world is an ANW. (Pessimistic Premise) 4. Therefore, probably, God does not exist. (From 2, 3)

An APW is more than a matter of its objective goods quantitatively outweighing its objective bads, even if the outweighing appropriately accounts for quantitative, qualitative, and distributional factors in that world. Plausibly, an APW achieves some degree of CO: its objective goods numerically outweigh its objective bads, its objective goods are maximized, its objective evils are minimized so as not to exceed a specific limit, and the value of the world is optimized (or at least satisfied). CO is a structural matter involving qualitative and quantitative aspects, axiological, mereological, and temporal relations, and other systemic features.⁸

In other words, in an APW containing evil (and other non-moral disvalues), there is a limit E , which is the maximum amount of evil (quantitative, qualitative, distributional, etc., however the appropriate calculation between such factors is to be handled) which the world can bear while still counting as APW. There is also a set of n goods, each of which has a precise value $v+$, and a set of n evils, each of which has a precise disvalue $v-$. An APW would have a maximized cumulative value of goods V without exceeding E . There might be a range of CO between a V that is minimally optimized but still axiologically positive and a V which is maximally optimized. Let us say that a minimally optimized world is good enough; i.e., such a world is satisfied, falling above an ANTW, and thus qualifies as an APW. Such a range introduces the possibility that a world is axiologically positive and thus worth creating, yet not unsurpassable. Accordingly, an ANW would be any world which falls short of being an ANTW.

My combinatorial argument challenges pessimistic premise (3): probably, the actual world is an ANW. Assuming possible worlds are value-bearers, every possible world is either an APW, an ANW, or an ANTW. Assume also that possible worlds are axiologically comparable, and thus it is logically and conceptually possible to determine that the world is an ANW in comparison with neutral and positive worlds.⁹ To determine ANW status from the bottom up, it seems one would need to know the exact number of goods g in the world's set of goods (these would be past, present, and future as well as public and private), the precise value $v+$ of each good in the set, the exact number of evils e in the world's set of evils (past, present, and future; public and private), the precise value $v-$ of each evil in the set, and the specific limit E for the world. As with 0/1 knapsack problems, this task is feasible in principle. However, plausibly, no human mind is cognitively equipped to complete this task because we cannot perform an exhaustive (or brute-force) search on the problem. The value of the world is an axiological knapsack problem.¹⁰ The problem generates a combinatorial explosion, and such problems are unmanageable for humans to solve and inscrutable for us to grasp.¹¹ Thus, the task of evaluating the world is beyond our ken. The PAE holds that the evaluation of the world is negative; however, given the recalcitrant nature of such an assessment, the PAE is undercut.

Here, it is important to clarify that the analogy between a standard knapsack problem and a world-level axiological knapsack problem does not indicate that the human epistemic condition (i.e., our general cognitive capacity to understand the world, without factoring in any particular inquiry) is inferior in the latter case. The epistemic condition is equivalent across the two problems. However, our epistemic position (i.e., the informational and

computational features of the specific inquiry at hand) is different in the two cases. In standard knapsack problems, ideally, the agent possesses complete information: the full set of items, their precise values and weights, and the carrying capacity. The main difficulty concerns computation regarding the challenge of maximizing value without exceeding the carrying capacity. In world-level axiological knapsack problems, the difficulty is both informational and computational. Humans do not possess complete information about the world's axiological profile: the full set of goods and evils, their precise values and disvalues, their relations, the relevant limit E , etc. And even if we were to enjoy informational completeness, we would face the computational challenge inherent to standard knapsack problems. Thus, the two problems are analogous with respect to human cognitive ability, but the world-level case places us in an epistemic position that is worse in the sense of being more obscure for us. It is this conjunction of incomplete information and computational intractability that generates the intractability of the PAE. In sum, world-level axiological knapsack problems are doubly difficult: whereas standard problems face only computational challenges, world-level axiological problems face both informational and computational challenges.

Our knowledge of past, present, and future goods and evils is insufficient for this evaluative task. We are not aware of all the goods in the complete set of goods, and we are not aware of all the evils in the complete set of evils. For example, we are ignorant of some basic physical goods that occurred 20,000 years ago, and we are ignorant of some psychological goods that will occur 5000 years in the future (supposing there will be such goods). We are unaware of the complex axiological and other sorts of relations that might hold between these goods.

Moreover, we are not cognizant of all the goods and evils contemporary with us, nor do we grasp all the relations in which they stand. For instance, one does not know all the goods and evils that one's closest friend has done. Indeed, it is plausible that one does not know all of the goods and evils he himself has done. *A fortiori*, one does not know all the goods and evils in this world. On this point, Eliot's (1871–1872: Finale, final sentence) line is instructive: “[F]or the growing good of the world is partly dependent on unhistoric acts; and that things are not so ill with you and me as they might have been, is half owing to the number who lived faithfully a *hidden life* [my emphasis], and rest in unvisited tombs.”¹² The moral life is to a great extent a hidden life; many of our morally significant thoughts, choices, and acts are unknown by other human beings, and even unknown to ourselves. As Kant (2018, p. 54) recognized, one's maxims and motives are not observable, even by himself in some cases. Similarly, the wider axiological life, which includes values and disvalues that are not moral in nature, is also largely hidden. We thus have two important categories of value: public and private. In each category, there are unknown goods and bads.

Nevertheless, even if we could know every morally significant thought, choice, and act by every human being, we still cannot know every possible result of each human action in the world, nor can we calculate the probabilities of each possible result. Concerning human rationality and the feasibility of optimization, Kraay (2013, p. 5) indicates, “Given our physiological and psychological limitations, no human being has enough information or computational capacity to do what traditional optimizing or maximizing accounts of rationality require: namely, to (1) identify every possible outcome of an action, to (2) determine the value of each one, and (3) to assess the probability of each one's occurring.”¹³ Moreover, even if someone could have sufficient information in a dispositional sense, it is unlikely that he could have the relevant occurrent information so as to manipulate it appropriately and optimize accurately.¹⁴

Furthermore, our ability to grasp the precise value of each good and bad in the world is inadequate. Even if we were conscious of every good and every evil, and of all the relations in which they stand, it is reasonable to argue that we cannot discover the exact value of each. As Plato (2009, p. 829) puts it: “The law [of reason], I suppose, declares that it is best to keep quiet as far as possible in calamity and not to chafe and repine, because we cannot know what is really good and evil in such things . . .” Rescher (2011, p. 489) makes a similar point: “The idea that the world is improvable is not without problems.” He continues: “Any local fix always has involvements throughout, and in consequences no tweaking or tinkering may be able to effect an improvement.”¹⁵ (pp. 493, 494.)

In addition, our capacity to determine the exactness of E is inadequate. What is the specific limit of evil that the entire world can bear while remaining axiologically positive? How would we even begin to answer this question? Moreover, given our cognitive limitations regarding such matters, our ability to know what specific goods and evils can and should fit into the world with respect to E is inadequate. Given E, what kinds of good and evil must be included in the world so as to maximize V and avoid violating E? Such matters are plausibly beyond human comprehension. Although in the ontic domain every possible world is either an APW, an ANW, or an ANTW, in the human epistemic domain, we do not know whether the actual world matches the first, second, or third of these types. For all we know, given the alternatives, this world is good overall.¹⁶

Accordingly, (3) is suspect. Plausibly, no human is in the epistemic position to claim reliably that (3) is plausible, let alone to know (3). The value of at least some possible worlds (e.g., the actual world and other sufficiently complex worlds) is beyond the measuring ability of humans. Wykstra (2017b, p. 138) seems to agree. He notes that we are not equipped to be “godlike masters at maximizing the total net good in the universe.”

5. A Depleted PAE

The combinatorial argument indicates that the pessimistic premise of the PAE rests on an axiological comprehensibility assumption (ACA): humans are epistemically situated to make reliable world-level evaluations. I have provided reasons to doubt the ACA. Hence, given the dubious nature of (3), the strength of the PAE is depleted, at least regarding the version I address. The PAE is inconclusive at best, and thus neither rebuts nor strongly undercuts theism. Arguably, we should abstain from overextending our epistemic powers by claiming that the world is an ANW.

6. The Combinatorial Argument and Skeptical Theism

My argument suggests that the effectiveness of the PAE is suspect. As such, my position is similar to skeptical theism.¹⁷ This is the theistic view that humans should be skeptical of our ability to understand God’s reasons for acting and, specifically, for permitting evil. Skeptical theism is often used to defend theism against the PAE: since we should not believe that we are in the epistemic position to understand the reasons God might have for permitting evil, we should not conclude that the existence of evil makes God’s existence unlikely.

Yet my position differs from skeptical theism in several key respects. First, for present purposes, I do not defend theism. I am not defending theism against the PAE by appealing to shortcomings in the human ability to understand God’s reasons for creating and providentially supervising the world. Rather, I am examining whether value considerations pose an axiological problem to the PAE. My case concerns world-level axiological structures and human epistemic limitations to grasp them, rather than the human inability to understand divine reasons for permitting evil.¹⁸ Second, I contend that the world includes an axiological realm with goods and bads vast in number. These goods and bads are too

many for us to count, and they stand in relations sufficiently complex that the overall value of the world is incomprehensible to us. The axiological profile of the world constitutes a combinatorial explosion. Although the skeptical theist might agree with this point, he need not. Skeptical theists typically do not address matters such as combinatorial explosion. In addition, I use this point to underscore a problem with the PAE, whereas the skeptical theist attempts to defend theism against arguments from evil by claiming that humans are not in the epistemic position to determine what God's reasons might be for allowing evils. Third, unlike skeptical theism, my argument does not involve any claim about the human ability to understand God, nor does it take a position about God's reasons for choosing to act or refrain from acting in any given situation. My position is consistent with but does not require the assertion that God's ways are inscrutable to us. However, my position does hold that the moral or axiological order of the world *in toto* is impenetrable to human reason. In other words, regarding Kant's (2004, p. 489) question "What can I know?": we cannot know the intricate axiological combinations and balances that constitute the overall value of the world.

Given these differences between skeptical theism and combinatorial axiology, my thesis is not vulnerable to common objections to skeptical theism, such as that it undermines our reasons to trust God or to accept theism as a rational worldview. However, other objections to skeptical theism seem pertinent to my position, such as that skeptical theism undermines moral epistemology, normative ethics, and moral decision-making. These objections will be addressed below.

In sum, the combinatorial argument does not hold that God's reasons are mysterious to us, though it is consistent with this claim. Rather, my argument holds that the axiological structure and status of the world is inscrutable to us. Moreover, given the complexity of the world's axiological profile, my argument provides a plausible explanation for why God's reasons would be incomprehensible to us, assuming God exists. God's reasons would be enigmatic because they correspond to the complicated axiological nexus of the world, and this structure is incomprehensible for human minds. Thus, the fact that the world's axiological structure is epistemically inaccessible to us would determine the reasons of an omniscient creator and superintendent of that structure similarly impenetrable. Omniscience would understand the structure; we do not. Hence, my argument does not appeal to the mysterious ways of the divine, but rather explains why divine ways—if they exist—would transcend finite minds like ours.

At this point, it is important to inquire into the nature of the human problem of understanding the complexity of the world's axiological profile. Is this a problem for humans because of our biological condition? Is the biological structure of the human brain such that we cannot grasp the world's complexity? This structure is plausibly part of the explanation. For example, human beings can hold only a limited number of items in their working memory at a time. According to Miller's Law in psychology, this number is seven plus-or-minus two. This limit sets constraints on the human capacities for calculation, problem solving, and decision making. However, other factors also explain the intractability of understanding the world's complexity. Human beings are constrained by temporal limitations. We are imperfect predictors of long-term consequences. We simply do not have access to complete information about all of the values and disvalues in the world, their relations and possible trade-offs and pay-offs, axiological ranks, diachronic value dynamics, etc., whether in terms of its present state, its past states, or its future states. Any finite form of cognition might well face these problems, *mutatis mutandis*. Even if the form of cognition is non-biological and thus not vulnerable to the biological constraints that humans face, arguably, the non-biological cognitive entity would still lack

complete information about the world's values and disvalues, face temporal and predictive challenges, etc.¹⁹

7. The Combinatorial Argument Recapitulated

I have argued that the PAE requires reliable and justified human assessments about global value regarding the world's combination of goods and bads. Such justification requires that the limited axiological data we possess correspond to the exhaustive axiological data that exists, most of which we do not possess, which includes a vast number of value-bearers and combinations, and which increases combinatorially with the number of values and disvalues and their structural relations and interactions in the world as a whole. But given such combinatorial increase, our narrow and subject-limited observations and comprehension hinder our attempts at world-level axiological conclusions. Such limitation significantly diminishes the probabilistic strength of the PAE. Hence, we are not epistemically entitled to the degree of probabilistic confidence the PAE asserts. The PAE is thus undercut, though not refuted.²⁰

8. Objections and Replies

Objection One: one might protest that it is implausible to claim that this world, with its suffering and other repugnant features, is the best or among the best of world alternatives. For instance, one might have experienced intense suffering and thus, from his own experience, concluded that the world is not axiologically positive.

Reply: First, possible worlds such as ours are not simple things; rather, they are complex mereological entities which must achieve combinatorial satisficing in order to qualify as worthy of actualization. The human inability to see all the details of this satisficing is not adequate evidence that the world is not, in fact, satisfactory.²¹ Each person has a limited perspective on the objective world as a whole. Collective humanity also has a restricted view. Similarly, the fact that some individuals do not approve of the axiological arrangement of the world because some aspects of that arrangement are disliked by them is not a sufficient argument against the world's objective positive status. After all, others might approve of the world from their limited perspectives. An APW world is good as a whole, not necessarily liked from each subjective point of view.²²

Second, a good world achieves combinatorially positive value, in a minimal or a maximal sense. This optimization involves trade-offs, compromise, and balance. Consider a house. Various features make for a good house: affordability, durability, utility, beauty and other aesthetic features, safety, space, feasibility of maintenance, feasibility of access, etc. But one cannot maximize each of these features to their extremes of value. One cannot make do with a house that costs \$10; it might collapse in one day. One cannot maintain a house that is 100 square miles in space (and therefore quite good in terms of its spatial feature) but is wholly unaffordable, infeasible to keep clean and orderly, etc. A good house has an appropriate balance of these and other features even if, from a limited perspective, one might not like aspects of the house. Such a balance requires limits on each feature such that, taken in isolation, each could be better. But the whole cannot have each feature at its extreme best; such would make for a bad (and perhaps practically impossible) house. Instead, the whole is the best (or at least a satisfactory) combination of these values. Such a house, we might say, is located at a Pareto frontier.²³ Worlds have similar combinatorial balances and trade-offs. But with worlds, we cannot grasp all of the balances and trade-offs.

Objection Two: One might insist that it is implausible to think of the actual world as the best possible world, or as axiologically unsurpassable.

Reply: My argument does not require that the actual world is the best possible world, or even that it is among the best. One can argue that there is a principle of axiological

adequacy; this principle holds that whatever world is actualized is a sufficiently good world. The principle of axiological adequacy is a satisficing principle such that any world which is actualized must be good enough, and thus any ANW is prevented from being actualized.

Objection Three: One might demur by admitting that, based on a bottom-up approach, we cannot conclude that the world is axiologically negative. However, one can mount a top-down argument for actual-world-pessimism. One can start from a plausible metaphysical or axiological principle and infer from it that the world is negative in value.

Reply: Top-down reasoning does not escape the epistemic problem. The claim that there is some principle that entails the overall badness of the world requires defense, which likely requires assumptions about the axiological profiles of worlds in general, as well as assumptions about the actual world's profile, its various goods and bads, and how they interact in the total value nexus of the world, as well as assumptions about one's epistemic abilities regarding world-level axiology. In short, top-down arguments presuppose claims about world-level value, which raise a combinatorial problem. If these presuppositions are not explicitly supported, such arguments rely on undefended and questionable assumptions. In short, arguably, top-down approaches presuppose the ACA, and I have raised various considerations that render the ACA dubious. Thus, the combinatorial argument does not target only bottom-up reasoning. It challenges the epistemic legitimacy of world-level axiological evaluations in general, whether bottom-up or top-down.

One might be concerned here that there is a single horrendous evil that essentially taints a world, making it fundamentally axiologically negative, thus rendering a combinatorial assessment of the world's axiology irrelevant. Perhaps Schopenhauer's metaphysics recognizes a disvalue that would count as an example of such an evil: the world is, at the noumenal level, merely blind (non-conscious) impulse, and hence is vain and purposeless because the world cannot satisfy its own blind striving. Moreover, this insatiable desire is the source of all suffering; this suffering is inherent to the world (at least with respect to its conscious beings). Therefore, in virtue of its conjunction of inherent vanity and suffering, the world is ineludibly negative in value.²⁴

In response, it is important to distinguish between global and local axiological taints. My combinatorial argument is consistent with merely local taints but not with sufficiently corrupting global taints. A single horrendous evil might be sufficiently negative to guarantee a merely local defect but not a global one. My argument is therefore consistent with horrendous evil that has local but not global influence. The claim that one horrendous evil has sufficient global (negative) influence, making the whole world irredeemably bad, faces problems. First, it presupposes that horrendous evil possesses system-wide priority over all goods, even glorious ones, such that no matter how many of the latter exist, the former is enough to permanently fix a whole world as a bad one. This is an axiological and mereological assumption that requires significant defense. Second, we cannot know that the world contains such a global taint, nor can we know that the world lacks the goods to counterbalance or outweigh it. For all we know, the world contains a global good-maker which fixes it permanently as a good world. To assume that the world contains a horrendous evil that fixes it as bad is, arguably, to assume a knowledge of world-level axiology which my argument opposes. Third, consistent reasoning requires that the presence in the dialectic of the assumption that one horrendous evil has sufficient global (negative) influence, making the whole world irredeemably bad, justifies the availability of the counter-assumption that one glorious good has sufficient global (positive) influence, making the whole world unchangeably good. One who assumes the former would need to explain why that assumption is justified, but the latter is not. As for Schopenhauer's argument, despite its existential significance and thoroughgoing metaphysical framework, it is a speculative argument that

rests on debatable claims about blind impulse at the noumenal level, world-fixing bads, and the nature of value itself, which are not epistemically obvious facts.²⁵

Objection Four: the PAE advocate could reply that we do not need a comprehensive and precise knowledge of the axiological status of the world to reason from the bottom up that the world is negative in value. One need only judge based on one's limited but considered experience of the range of values in this world; on such a judgment, one is warranted in concluding that this is probably an ANW. The objector could claim the following: we have adequate reason to believe that the disvalues one knows about represent the disvalues there are, and that the values one knows about correspond to the values there are. Hence, based on these assumptions, one is inductively justified in concluding that the world is axiologically negative if one's experiences of value and disvalue support such a conclusion.

Reply: The PAE advocate who says that the values and disvalues of which we are aware probably represent the values and disvalues there are assumes the principle of induction. Although this principle functions in the physical sciences (though not cleanly, given the problem of induction), it is less effective in the axiology of worlds. The principle of induction is more or less dependable in epistemic situations of ordinary complexity such that there are observable entities with known characteristics, there is independent (non-inductive) reason to believe that the natural world functions in a unified manner, that the future will resemble the past, and there is reason to believe that the unknown entities are similar to the known entities in terms of their characteristic profiles. The stability of such situations is such that the use of induction enables strong probabilistic conclusions. Such situations are more or less tractable for humans. However, a combinatorial explosion of world-level axiology is not an epistemic situation of ordinary complexity, but one of heightened complexity. The unknown elements are enigmatic to us in terms of their values, relations, stochastic features, and structural functions. We lack inductive reasons to assume that the value structure of the world is such that the future will resemble the past. We cannot observe every value and disvalue. In such heightened situations, ordinary induction is unreliable. Heightened situations are intractable for humans. World-level axiology concerns heightened rather than ordinary complexity, involving unknown variables, incomprehensible relations and distributions, mereological value considerations, and inscrutable functions packaged in a combination that is both quantitatively and qualitatively intractable for us.

Moreover, consider the distinction between axiological value (value simpliciter) and welfare value. The former concerns the value of the world as a whole; the latter concerns value for a person or group of persons (i.e., value for a part of the world). If a part of the world contains negative value, it does not follow that the world as a whole is an ANW.

Lastly, one can reply that the objection is vulnerable to an excessive subjectivism that cuts in both atheistic and theistic directions. Assume the principle that the disvalues one knows of represent the disvalues there are, and that the values one knows of represent the values there are. A person who, from his limited experience of the world, knows about more disvalue than value might conclude that the world as a whole is axiologically negative. But another person who, from his limited experience of the world, knows about more value than disvalue might conclude that the world as a whole is axiologically positive. At the level of individuals, it seems there is no way for us to determine conclusively which person is correct. Their testimonies offset each other.

Objection Five: One might argue that my case supports absolute moral skepticism and/or axiological skepticism. Alternatively, it might be thought that my argument suggests a paralysis of moral decision-making and ultimately a life of indifference and passivity.

Lastly, there might be a concern that my argument entails that human efforts to live well and make the world better are pointless.²⁶

Reply: I will respond to each of these objections in order. The first seems to falter via the fallacy of division. From the proposition that humans do not (or cannot) know the overall value of the world, it does not follow that one does not (or cannot) understand the value of mundane parts of the world with which he is familiar. In other words, if the whole world has the property of being axiologically unknown/unknowable to us, it does not follow that each part of the world (for example, the state of affairs of Jones stealing Smith's car) has the same property. One might be capable of knowing that, say, his neighbor is intrinsically valuable and ought to be helped and not harmed, even if one does not know the overall value of the world. Therefore, the objection to global moral and axiological skepticism is blocked. My response can be modified to address the second and third objections as well. From the fact that we do not/cannot know the axiological value of the world, it does not follow that we lack knowledge and rational decision-making capabilities about the values of parts of the world. To paraphrase Wykstra (2017a, pp. 119, 120), epistemic humility is not total skepticism.

One might wonder if there is a tension between the kinds of local improvements I am discussing here and the reference in Section 4 to Rescher that “no tweaking or tinkering may be able to effect an improvement” in the world.²⁷ In response, there is a pertinent distinction between (a) understanding mundane parts of the world and (b) God-level axiological tinkering with parts of the world to improve it as a whole. Rescher's point concerns (b). But in Objection Five, I am addressing (a). To elaborate, consider two senses of ‘improvement.’ Rescher's “no tweaking” claim concerns global improvement. Such activity involves a God's-eye view on and modification to the world's axiological profile. Rescher is referring to the idea that the world is a precisely tuned axiological system in which changes to any proper part influence the whole and the other proper parts. As such, world-level improvement via tweaks and tinkers is a fundamental problem of world-building and world-selection. However, Objection Five concerns local improvements from the perspectives and abilities of finite humans already living inside parts of the world, e.g., ordinary human actions that involve helping and harming in small sections of the wide world. My argument is consistent with the possibility of local human-guided improvements while holding that global axiological betterment based on human understanding of the world's value profile is beyond our attainment. Rescher's point about the God's-eye view is thus compatible with the idea of local attempts at improvement via human effort.

Objection Six: The combinatorial argument undermines both the problem of evil as evidence for atheism and the existence of goodness as evidence for theism. In other words, one might insist that logical consistency demands consistency in both directions. Since we do not know the axiological status of the world and thus are not justified in claiming that its overall disvalue is probabilistic grounds for atheism, we similarly are not justified in claiming that its overall value is probabilistic grounds for theism.

Reply: This is an important observation of the consequences of the combinatorial argument, but not a refutation of it. The combinatorial argument supports a kind of axiological agnosticism. We do not know the value of the world, though we can discover the values of some of its parts. Hence, we are not in the epistemic position to use the supposed value or disvalue of the world as a whole as sufficient evidence to support either an atheistic or a theistic conclusion. An axiological argument for or against the conclusion that God exists, if the argument concerns the value of the world as a whole, is inconclusive.

9. Conclusions

In this paper, I argued, using combinatorial axiology, that the PAE includes a questionable assumption about the axiological nexus of the world and that the complexity of this nexus weighs against the PAE. We can understand that the world is agathokakological—a combination of goods and evils—but we cannot know whether this mix makes the world overall negative, neutral, or positive in value. The axiological status of the world provides us with an intractable problem of combinatorics. In Kant's (1964, p. 131) language, we do not comprehend the objective value of the world as a whole, but we can comprehend its incomprehensibility. Thus, the assumption that the world's overall value is negative oversteps our epistemic bounds.

In sum, the combinatorial argument significantly weakens the conclusion of the PAE. Hence, the PAE advocate ought to address this argument substantively before concluding that the PAE is successful.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author.

Conflicts of Interest: The author declares no conflicts of interest.

Abbreviations

The following abbreviations are used in this manuscript:

PAE	Probabilistic Argument from Evil
CO	Combinatorial Optimization
APW	Axiologically positive World
ANW	Axiologically negative World
ANTW	Axiologically neutral World
ACA	Axiological comprehensibility assumption

Notes

- ¹ Although my argument addresses the human epistemic situation, it is not only an argument about our epistemic limits. It is an axio-ontic argument, that is, an argument about world-level axiology: the world's axiological profile is too complex for humans to grasp. This complexity explains our epistemic limits with respect to world-level assessment. As such, the cynosure of my combinatorial case is not merely that humans have limited knowledge in ways that pertain the question of God's existence, but that the world's value profile itself is too intricate for us to evaluate it effectively. Given this intricacy, the PAE is weakened in terms of its probabilistic force.
- ² There are several versions of the PAE. For the sake of space, I group them into one category of probabilistic arguments.
- ³ Matheson (2014, p. 4) uses Draper's formulation of skeptical theism: "Humans are in no position to judge that an omnipotent and omniscient being would be unlikely to have a morally sufficient reason to permit the evils we find in the world." Matheson then distinguishes between strong and weak skeptical theism. The former holds that skeptical theism is true, and that the truth of skeptical theism prevents the evidential argument from (gratuitous) evil from succeeding. The latter holds that if one is on balance justified in accepting skeptical theism, then the premise about gratuitous evil in the evidential argument from evil will be unmotivated for that person.
- ⁴ This ontic classification would hold even if, epistemically, we cannot know which worlds fit into which category. There is debate in the literature over whether or not there is an objective division between worlds that are and are not worthy of actualizing. This debate might be construed as a disagreement concerning the objective axiological features of worlds, or it might be construed as a debate over human epistemic capacities to recognize such features and evaluate worlds in light of them. If the line dividing worthy from unworthy worlds is contested or vague, my argument would still seem to hold, since such uncertainty or disagreement would add to the epistemic problem I address in this paper.

- 5 It should be noted that gratuitous and horrendous evil are not identical. An evil is gratuitous if permitting it is not necessary to bring about a greater good which would justify its permission, and allowing it is not required to prevent the occurrence of an equally bad or worse evil. An evil can be gratuitous but not horrendous. A horrendous evil is, as Adams (2017, p. 28) defines it, one in which “participation in it constitutes *prima facie* reason to believe that the participant’s life cannot be good to him/her on the whole.”
- 6 As Schopenhauer (1818, p. 373) might say, such a world is “a business which doesn’t cover its expenses.”
- 7 One benefit for articulating the PAE in this way is that it is a general and thus flexible construction into which a specific bad-making property such as gratuitous evil or horrendous evil can be inserted. The PAE defender might apply this flexibility by saying that, even if God is justified in permitting gratuitous evil, there is some other kind evil in the world such that its presence makes the world axiologically negative.
- 8 Regarding temporal relations, consider the principle of bonum progressionis, which holds that worlds which increase in value over time are axiologically better than ones which do not. Plausibly, one should factor this principle into the process of combinatorial assessment of a world.
- 9 Some might deny that possible worlds are value-bearers, but this denial negates the PAE, which presupposes that the actual world is a value-bearer. Moreover, some might deny that worlds are axiologically comparable, i.e., that they stand in value relations to one another of better than, worse than, and equal to. I cannot investigate this point here, though it would reward investigation elsewhere.
- 10 This problem does not involve a physical knapsack, but rather an axiological and metaphysical system which functions like one.
- 11 My claim that the problem generates a combinatorial explosion is not metaphorical. Rather, it reflects the objectively complex nature of world axiology in conjunction with the limited human ability to grasp that nature. The value structure of the world is objectively such that its complexity increases factorially with each added variable, relation, and possible configuration such that its complexity quickly extends beyond human comprehension.
- 12 For all we know, the value of the world might be a growing good. Given the principle of bonum progressionis, this growing good might itself count in favor of the world’s overall value.
- 13 Regarding this point, it is important to highlight the work of Hebert Simon on the idea of bounded rationality. According to Simon, human beings face cognitive, computational, and predictive constraints, incomplete information, and epistemic limits that restrict our capacities for rational judgement, decision, and value scaling. See Simon (1955).
- 14 My point concerns the distinction between dispositional and occurrent beliefs. This distinction is standard in the philosophical literature on the nature of belief. An occurrent belief is one that is current in one’s active conscious activity at time *t*, whereas a dispositional belief is one that is stored in memory at *t* but not present in one’s active thinking at *t*. For example, one has the dispositional belief that two plus two equals four but is not entertaining that belief when reading Hemingway’s *The Old Man and the Sea*, but one is actively considering the occurrent belief that the old man is courageous and perseverant.
- 15 Rescher (2011) has argued that world-level evaluation is governed by systemic constraints and trade-offs that make world-level pessimism untenable. My argument pertains to this insight: not only is naïve pessimism untenable, but sophisticated attempts to assign probabilistic weight to global axiological assessments, either positive or negative, face a combinatorial explosion.
- 16 It might help to elaborate on my claim about the vastness of goods and bads in the world. Let’s take the hypothetical case of Green. Green was born in 1920 and died in 2000. He lived in Oregon, USA. He was married, raised three children, and had seven grandchildren. He worked as a civil engineer. Now, between his 18th and 80th birthdays, he lived about 22,630 days. Let’s say that this was the duration of his adult life. Let’s also suppose that Green made, on average, 25 morally significant decisions per day during his adult life. So, he made approximately 565,750 morally significant decisions in his adult life. Moreover, he had countless morally significant thoughts, beliefs, hopes, plans, motives, and maxims. And all of these morally significant aspects of Green’s adult life interrelated with those of other persons (ones he knew and ones he did not know) and influenced the world in ways we cannot calculate. In addition, his life included an unknown number of non-moral but axiologically significant factors. Let’s expand this point to include all human beings who have ever lived. Given the billions of human agents who have existed (plausibly over 100 billion), the unknown number yet to be born, the uncountable trillions of agentic actions they have performed and will perform, the innumerable consequences of those actions, and the staggering number of ways in which all of these factors interrelate in axiologically significant respects across the history of the world, the total number of goods and bads is not merely large but tremendously vast, exceeding the human capacity for recognition, as well as for enumeration and evaluation. Human historiography records only a small fraction of human activity, limited to a few thousand years of civilization and writing, and covering only a small percentage of the actions that occurred even within that period. Tens of thousands of years of human prehistory are unrecorded and not well understood. Moreover, there are billions of years of non-human history and the possibility (logical and epistemic) of non-human agents or non-personal factors that might have contributed to the world’s axiological profile. In addition, we should note the untold number of “unhistoric” and “hidden” acts that make human life so complicated: e.g., small gestures, uncommunicated thoughts and feelings, hidden motives and maxims, plans and hopes and

- fears which influenced human actions even if never spoken about, etc. Given this immense set of germane factors, it is reasonable to conclude that the world contains an amazingly vast number of goods and bads, most of which are beyond human ken.
- 17 The term ‘skeptical theism’ is a term of art customary in the literature. Its usage does not presuppose that its adherents are theists.
- 18 It is important to note that the criticism of an argument does not entail the critic’s defense of or support for its opposing view.
- 19 This point suggests that even an idealized, superintelligent AI agent or unbounded algorithmic system would face intractability when trying to compute global axiology. I am thankful to an anonymous reviewer who contributed this comment.
- 20 My argument has emphasized the probabilistic argument from evil. However, it also poses a challenge to recent attempts to revive the logical argument from evil, such as Sterba’s (2024) moral requirements case, which arguably presupposes the ACA, which I have questioned in this paper. I cannot investigate this point here.
- 21 There is debate in the literature over whether or not divine satisficing is permissible.
- 22 Heathwood’s (2015, p. 137) distinction between axiological value (value simpliciter or value as such) and welfare value is relevant. The former refers to value for the world as a whole; the latter refers to value for a part of the world (for example, value for a person or a group of persons). If a world contains negative value for a specific person or group, it does not follow that the world is negative as a whole. One should avoid the fallacy of composition by arguing that since a part of the world has negative value, the world as a whole has negative value. Zimmerman (2015, pp. 14, 15) makes a similar distinction between what is good for a particular person and what is good for the world.
- 23 I am not claiming that the actual world sits at a Pareto frontier for possible worlds, though such seems epistemically possible. However, the combinatorial argument indicates that if the world sits at a Pareto frontier, we could not know this, nor could we know that it does not sit so.
- 24 I am grateful to an anonymous reviewer who raised this general objection. Regarding Schopenhauer’s metaphysics, see *The World as Will and Representation* (Schopenhauer 1818). Concerning his axiological assessment of the world, see *The Vanity of Existence* (Schopenhauer 2004).
- 25 For more on the concern about a single horrendous evil and responses to it, see Van Inwagen (2001), who evaluates an argument based on “the Mutilation.”
- 26 For more on this objection from skepticism, see Almeida and Oppy (2003) and Dougherty and McBrayer (2014).
- 27 I am thankful to an anonymous reviewer who raised this point.

References

- Adams, Marilyn McCord. 2017. A Modest Proposal? Caveat Emptor! Moral Theory and Problems of Evil. In *Ethics and the Problem of Evil*. Edited by James P. Sterba. Bloomington: Indiana University Press.
- Almeida, Michael, and Graham Oppy. 2003. Sceptical Theism and Evidential Arguments from Evil. *Australasian Journal of Philosophy* 81: 496–516. [CrossRef]
- Dougherty, Trent, and Justin P. McBrayer. 2014. *Skeptical Theism: New Essays*. Oxford: Oxford University Press.
- Draper, Paul. 1989. Pain and Pleasure: An Evidential Problem for Theists. *Nous* 23: 331–50. [CrossRef]
- Eliot, George. 1871–1872. *Middlemarch*. New York: Caldwell Company Publishers.
- Heathwood, Chris. 2015. Monism and Pluralism About Value. In *The Oxford Handbook of Value Theory*. Edited by Iwao Hirose and Jonas Olson. Oxford: Oxford University Press.
- Hick, John. 1966. *Evil and the God of Love*. Berlin/Heidelberg: Springer.
- Kant, Immanuel. 1964. *Groundwork of the Metaphysics of Morals*. New York: Harper and Row.
- Kant, Immanuel. 2004. *Critique of Pure Reason*. New York: Barnes & Noble Publishing, Inc.
- Kant, Immanuel. 2018. *Religion with the Boundaries of Mere Reason and Other Writings*, 2nd ed. Edited by Allen Wood. Cambridge: Cambridge University Press.
- Kraay, Klaas. 2013. Can God Satisfice? *The American Philosophical Quarterly* 50: 399–410.
- Matheson, Jonathan D. 2014. Phenomenal Conservatism and Skeptical Theism. In *Skeptical Theism: New Essays*. Edited by Trent Dougherty and Justin P. McBrayer. Oxford: Oxford University Press.
- Plantinga, Alvin. 2000. *Warranted Christian Belief*. Oxford: Oxford University Press.
- Plato. 2009. Republic. In *Plato: Collected Dialogues*, 20th ed. Edited by Edith Hamilton and Huntington Cairns. Princeton: Princeton University Press.
- Rescher, Nicholas. 2011. On the Improvability of the World. *The Review of Metaphysics* LXIV: 489–514.
- Rowe, William L. 1979. The Problem of Evil and Some Varieties of Atheism. *American Philosophical Quarterly* 16: 335–41.
- Schopenhauer, Arthur. 1818. *The World as Will and Representation*. Garden City: Dover Publisher.
- Schopenhauer, Arthur. 2004. The Vanity of Existence. In *Essays and Aphorisms*. New York: Penguin Books.
- Simon, Herbert A. 1955. A Behavioral Model of Rational Choice. *Quarterly Journal of Economics* 69: 99–118. [CrossRef]
- Sterba, James P. 2024. God and Purported Logical Arguments from Evil and Suffering. *New Blackfriars* 105: 668–80. [CrossRef]

- Van Inwagen, Peter. 2001. The Argument from Particular Horrendous Evils. *Proceedings of the American Catholic Philosophical Association* 74: 65–80.
- Van Inwagen, Peter. 2023. The ‘Range’ Argument from Evil. In *Freedom, Responsibility, and Value: Essays in Honor of John Martin Fischer*. Edited by Taylor Cyr, Andrew Law and Neal Tognazinni. Oxfordshire: Routledge.
- Wykstra, Stephen. 1984. The Humean Obstacle to Evidential Arguments from Suffering: On Avoiding the Evils of ‘Appearance’. *International Journal for Philosophy of Religion* 16: 73–93. [\[CrossRef\]](#)
- Wykstra, Stephen. 2017a. A Skeptical Theist View. In *God and the Problem of Evil: Five Views*. Edited by Chad Meister and James K. Dew, Jr. Westmont: InterVarsity Press.
- Wykstra, Stephen. 2017b. Beyond the Impasse: Contemporary Moral Theory and the Crisis of Skeptical Theism. In *Ethics and the Problem of Evil*. Edited by James P. Sterba. Bloomington: Indiana University Press.
- Zimmerman, Michael J. 2015. Value and Normativity. In *The Oxford Handbook of Moral Theory*. Edited by Iwao Hirose and Jonas Olson. Oxford: Oxford University Press.

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.