To be published in *Wonder, Education, and Human Flourishing*, ed. Anders Schinkel (Amsterdam: VU University Press, forthcoming).

**Philosophical Arguments and the Experience of Cosmic Wonder**

Sophia Vasalou

1.

Few today would deny that the thoughts we think determine the emotions we feel (at least in part). Fewer still would deny that the emotions we feel determine who we are, and how well our life goes for us. In this paper, I want to focus on one particular emotional experience—one particular form of wonder—that occupies a special place in our understanding of wonder, and of its role in determining our character and the character of our life. This is the experience often referred to as “cosmic” or “existential” wonder. On a common characterisation, this form of wonder finds its object in the very existence of the world, and receives its quintessential expression in the question, “Why is there something instead of nothing?” It is an interesting empirical question how, by what routes and under what circumstances, such wonder arises. While not foreclosing this general question, I will be focusing on one route that seems to me especially important, namely philosophical argument, and in particular the kinds of arguments that typically feature in religiously motivated works. Some of these arguments have a familiar place in natural theology projects, and represent strains of a well-known species of argument known as the “cosmological” argument. But such argumentation can also be found in other types of religiously motivated narratives that do not form straightforward exemplars of this genre. In both cases, these works mediate an experience of wonder that is a direct product of their reason-giving narrative. In this capacity, they bring up a challenging question about the relationship between our “thinking” and our “feeling” in the case of this emotional experience. If wonder is mediated by argument, is it only as good as the reasoning that produced it?

How we answer this question has important implications for the way we understand the cognitive dimensions of wonder as an experience, and also the way we approach its value. Yet part of my aim in pursuing this question is to expand our picture of the routes through which wonder becomes available to us, and to foreground the role of narratives more generally, and philosophical narratives more specifically, in educating us into it. To the extent that these philosophical narratives develop within religious traditions, this points to the special role that a theological education may have to play in strengthening the muscle of wonder.

I begin (section 2) by a general comment on this type of wonder, which sets the stage for a question about how the experience may arise. I then pick out natural theology as an important cultural route to the experience, and in particular cosmological arguments for the existence of God, and I outline a few prominent exemplars of these arguments. The ability of this type of argumentation to produce assent to substantive claims about God’s existence, I suggest (section 3), can be separated from its ability to generate an emotional response of wonder at the world’s existence. Yet if this response emerges as a direct outcome of philosophical reason-giving, doesn’t its validity equally depend on the strength of these reasons? Given the notorious controversies that beset these kinds of arguments, this experience would appear to be a highly fragile good (section 4). Having framed this challenge, I offer two responses. One (section 5) involves a way of defending the experience that focuses on its internal features and phenomenology. This defence is developed through an analogy with a similar type of wonder produced by pharmacological means, specifically through exposure to psychedelic substances. Another (section 6) briefly makes the case for a more cognitive justification of the experience, focusing on the capacity of these arguments to make certain concepts—like the ordinary concept of a “world”—thinkable to us. We don’t need to be persuaded by these arguments, I conclude, to avail ourselves of the possibilities of wonder they offer.

2.

Wonder comes in many kinds; yet no doubt one of the most powerful, and also the most elusive, is the experience often referred to as “cosmic” or “existential” wonder.[[1]](#footnote-1) Those who have written about this experience have described it using a number of interrelated expressions: as a wonder directed to existence as such, to the *that-*ness of things, or to the world taken as a totality. Existential wonder, in the words of Ronald Hepburn, is the sense of astonishment we feel when the “sheer existence of a world” strikes us as an extraordinary and inexplicable fact (Hepburn 1980, 10). Wittgenstein gave voice to this wonder using a religious turn of phrase in his *Notebooks*: “The miracle is that the world exists. That what exists does exist” (Wittgenstein 1979, 86e). Its archetypal expression, as he would later give it in his “Lecture on Ethics,” is in the exclamation: “How extraordinary that anything should exist!” “How extraordinary that the world should exist!” (Wittgenstein 1965, 8). The explanatory question “*Why* is there something instead of nothing?” forms a natural articulation of this sense of surprise.

It is a type of wonder that on the face of it seems very different from many of the cases we would instinctively invoke when seeking to illustrate the concept—whether it’s laying eyes on a blood moon or Aurora Borealis for the first time, soaking up a fantastical architectural creation that just burst into view in a newly visited city, confronting an exquisite work of art on a gallery wall, or watching the athletic exploits of an exceptionally gifted individual on a sports track or a TV screen. Some differences are obvious: the familiar sight of the world around us is a very different kind of object from the unfamiliar sight of exotic celestial phenomena or architectural fantasies made real. Other differences require closer reflection. One of these concerns the question just how we take these experiences to arise.

When considering these core cases, for example, it seems relatively easy to understand *why* someone might experience wonder, in the double sense of *what it* *is about* those objects that makes them worthy of wonder and *how the experience came about*. Any description of the causal history of these experiences would begin with the following: she lifted her eyes to the moon, to the skyline, to the museum wall, to the TV screen, and saw—. In a handful of cases, the explanation might (almost) stop there. Being the kinds of creatures that we are, such-and-such sensory stimuli simply affect us in certain ways (under certain conditions that include novelty of stimulus, absence of fear, and so on). It is such cases that inspired Philip Fisher to tie wonder narrowly to visual perception, describing wonder as the “outcome of the fact that we see the world” (Fisher 1998, 17). In many other cases, the causal history would have to be extended backwards to encompass the development and education of the judgements mobilised in our affective response. Our wonder at artistic objects or athletic achievements is a case in point, yet the same arguably applies to certain kinds of natural phenomena.[[2]](#footnote-2) In these cases, we may often have to explain *what it is about* such objects that makes them worthy of wonder to others who do not immediately share our response. Yet even in these cases, it is the particular object before us that serves as the immediate trigger of our response. *That* would seem to be the more general truth in Fisher’s claim.

What about existential wonder? How might such an experience arise? This type of experience seems especially recalcitrant to being accommodated by Fisher’s visual model in its simplest form. Taken as a surprise that attaches to the sheer existence of a world, it is not an experience we could easily regard as capable of being stimulated by any one object in this world, a fortiori by an object of visual perception.[[3]](#footnote-3) Such wonder may, as Hepburn observes, be directed to particular objects “seen as representing the whole” (1980, 10). In the most minimal sense, we need to direct our gaze *somewhere*. Yet it is clear that seeing objects *as* tokens of something else is no mere seeing. It naturally invites the question how such objects became tokens, and what kind of education our judgement has undergone that enabled us to see them this way. Hepburn himself clearly points to this cognitive education when he refers to the “thoughtof the whole” as the object of existential wonder (1980, 10).

It is important to bear in mind that the question just posed—how does existential wonder arise?—is ultimately an empirical one, and one that takes at least two forms, one concerning the historical appearance of this experience in the trajectory of an individual’s life, and another concerning its appearance in our trajectory as a species. My aim here is not to provide an exhaustive account of the causal pathways through which this experience may arise, and certainly not to engage in tantalising yet fruitless speculation about how it might have arisen in our natural history. It is possible that, for some individuals blessed with what we may call “mystical genius”—gifts analogous to though not entirely identical with those of Nikos Kazantzakis’ fictionalised hero Alexis Zorba (Vasalou 2015, 196-99)—a sense of surprise at the sheer existence of a world might arise with few antecedents. This is a possibility that would become more plausible if we followed the Eastern Orthodox theologian and philosopher David Bentley Hart in his hypothesis that such wonder, drawn to the “sheer inexplicable givenness of the world,” is “primordial” for us, “an abiding amazement” that “only in very rare instants breaks through into ordinary awareness” yet that “lies just below the surface of conscious thought” at all times (Hart 2013, 87). Aschildren, before habit displaced awe, we perhaps experienced this wonder with greater constancy.

Yet Hart’s view (a view of human nature) is compatible with acknowledging that this wonder will usually require external assistance in order to break into conscious awareness. My own intuition is that for many of us, at least at the point of natural history where we stand, this wonder, like the wonder at artistic works or athletic achievements and possibly even more so, is cognitively saturated at a deep level, and emerges as the cultural product of an education of judgment that makes certain kinds of thoughts available to us. There is arguably more than one form such a cultural education might take, yet in my view one of the most important is the one provided by intellectual traditions in which a sense of surprise at the existence of the world has been enshrined in well-developed practices of inquiry. If we wished to locate an exemplar, we need look no further than the type of religiously motivated inquiry known as “natural theology.”

Natural theology, as usually understood, is a mode of inquiry into God’s nature and existence which relies on “natural” epistemological resources such as observation and reason to effect its aims, to the exclusion of scripture and other supernatural sources of knowledge. Enjoying a long history across different cultural contexts and religious communities, one of its best-known expressions lies in a cluster of philosophical arguments that set out to establish the existence of God drawing on a range of rational considerations. These include the teleological argument (or argument from design), the argument from religious experience, the moral argument, and the argument from consciousness.[[4]](#footnote-4) For my purposes, the argument that holds special interest is the one commonly designated as the “cosmological” argument. It is a type of argument that has assumed a variety of forms at the hands of different thinkers. Yet its central pivot is the idea that reflection on the cosmos, or on fundamental features of the constituent parts of the cosmos, compels us to acknowledge the need for an eternal creator.

C. Stephen Evans (2013, 49-51) helpfully distinguishes between two versions of the cosmological argument, ones that start from particular parts of the natural universe (“part” arguments) and ones that start from the universe as a whole (“whole” arguments). Exemplifying the former, Thomas Aquinas thus focuses on certain general features that characterise particular things, such as their being in motion or their having been caused to exist. He then combines this with a claim that an infinite regress of explanations is not possible to reach the conclusion that there must be a first mover or first cause who coincides with what we understand as “God.” A good example of the second type of argument is supplied by the German philosopher Leibniz in a short yet much-discussed tract titled “On the Ultimate Origination of Things.” Drawing on the principle of sufficient reason—which stipulates that there must be a sufficient reason for the existence of anything that exists—Leibniz moves from a claim that particular things in the world are contingent to a claim that the world as a whole, taken as the aggregate of contingent particular things, is contingent. The existence of the world as a whole, therefore, requires an explanation which is not part of this aggregate. The ultimate reason for its existence must be “above the world, and, so to speak, extramundane” (Leibniz 1989, 149).

Leibniz frames his argument with the help of a concrete example, which it is worth quoting in full.

Let us suppose that a book on the elements of geometry has always existed, one copy always made from another. It is obvious that although we can explain a present copy of the book from the previous book from which it was copied, this will never lead us to a complete explanation, no matter how many books back we go, since we can always wonder why there have always been such books, why these books were written, and why they were written the way they were. What is true of these books is also true of the different states of the world, for the state which follows is, in a sense, copied from the preceding state, though in accordance with certain laws of change. And so, however far back we might go into previous states, we will never find in those states a complete explanation *[ratio]* for why, indeed, there is any world at all, and why it is the way it is. (Leibniz 1989, 149)

Despite the emphasis in this passage, Leibniz believed that his argument holds fast regardless of whether we posit that the world has existed eternally or had a beginning in time. In this regard, his position can be distinguished from that of another well-known version of the cosmological argument, often captioned the “kalām” argument to honour the paradigmatic articulation it received among Muslim practitioners of theology (*kalām*).[[5]](#footnote-5) There, the argument pivots around the claim that the universe had a beginning. Since anything that has a beginning must have a cause and nothing can cause itself to begin, there must be a cause that lies outside it.

This argument obviously hinges on the premise that the universe had a temporal beginning. The attempt to prove this proposition has taken a variety of forms in philosophical and theological circles past and present. The ninth-century Arab philosopher Abu Yusuf al-Kindī, who flourished around the same time that Islamic theology was acquiring its lasting lineaments, followed one particular approach when seeking to defend the Islamic idea of *ex nihilo* creation against the implications of Aristotle’s assertion of the world’s eternity. This approach was based on a simple (and itself Aristotelian) idea: the infinite cannot be traversed. If the world was eternal, this would mean that an infinite amount of time would already have elapsed. But if that were the case, we would never have gotten to the present moment (yet here we are!).

Before every segment of time there is [another] segment, until we reach a segment before which there is no other segment . . . if it could be otherwise, every segment of time would be followed by another segment, to infinity. In that case we could never reach a specified time, because from infinitely long ago up until this specified time is a duration equal to the duration from this specified time all the way back in time to infinity.

Hence, “it is impossible that there be a body that has always existed,” and “the universe necessarily has a creator [who created it] from nothing” (al-Kindī 2012, 66-67).

In another set of arguments, al-Kindī focuses on proving the slightly different premise that the universe cannot be infinite in magnitude—an idea which he believes (rightly or wrongly) entails that it cannot be eternal in time. He does this by asking us to assume an infinite body and to imagine that something is subtracted from it; he then invites us to consider whether this same body is finite or infinite after the subtraction of this finite piece. Both possibilities seem to ensnare us in contradictions, proving that an infinite universe cannot exist.[[6]](#footnote-6)

3.

My intention in the above has not been to provide a detailed account of these arguments, certainly not one that would be informative enough to enable a reader to determine whether they are persuasive. My presentation has been inevitably skeletal and elliptic. Taking in a skeletal outline of this type is not the same as giving these arguments a proper hearing. To let oneself be properly worked upon by a philosophical argument, giving it a fighting chance of persuading one, one needs to go through it without haste, engaging with its detail with a reasonable amount of care and attention. Even if these basic conditions are met, evidently one cannot generalise about the result of this engagement. Arguments, it is often observed, are not “coercive,” in the sense of being able to *force* us to believe their conclusions whether we like it or not.[[7]](#footnote-7) Arguments about the existence of God are notoriously even less so (a point whose special relevance I will return to). How a train of reasoning “works” upon a person depends on many additional conditions, including how well adapted it is to her cognitive and imaginative capabilities. If mathematics is not your forte, al-Kindī’s (and his modern heirs’) mathematical arguments against an actual infinite will probably leave you unmoved. It also depends, more obviously, onhow amenable she already was to the conclusion, and to being worked upon by an argument that she knew was designed to secure it. This last condition is of special importance, and evokes well-known questions about the right balance of sympathy and critical distance in our reception of philosophical arguments.

With all this in mind, and while allowing for these disparate effects, I want to distinguish between two ways of construing the effects that the kinds of arguments I outlined maypossibly,if not necessarily or invariably, produce. As crafted by their authors, the intended effect of these arguments is to secure assent to a substantive conclusion concerning God’s existence. We naturally tend to judge the failure or success of philosophical arguments depending on how they have altered our belief set and epistemic commitments. By the same token, we tend to think of the *experience* of engaging with and responding to an argument in purely cognitive terms: we think, we scrutinise, we analyse, we judge (the truth of individual premises, the soundness or validity of the entire structure). This picture conspicuously leaves out of view how such arguments may impact on a broader range of features of our mental life, including the emotions and the imagination. And the specific suggestion I want to make is that our picture of the reception of these arguments will be incomplete unless we acknowledge that one of their peculiar effects may lie in stimulating the feeling we call “existential wonder.”

The tendency to give only patchy acknowledgement to the affective dimensions of intellectual inquiry has a long tradition, and is tinctured by an old suspicion of passion as reason’s saboteur. Wonder has traditionally featured as an exception to this rule, with philosophers from Aristotle to Descartes and beyond recognising its importance as a passion of inquiry (Vasalou 2015). Yet certainly among these thinkers, the focus has fallen on the role of wonder in stimulating thought. What I am suggesting is that certain kinds of thought can also serve to stimulate it, and that the arguments I have considered offer one way of explaining how a wonder at the existence of the world may become available to us.

On one level, their capacity to do so can be understood very simply. To follow an argument at all (and certainly to follow it with the right level of sympathy, care, and attention) is to allow yourself to entertain intellectual possibilities. And one of the central possibilities that cosmological arguments—particularly the class that Evans calls “whole” arguments—invites you to take on is that the world’s existence requires explanation; that the fact that anything exists is not self-explanatory. This requires, at some level, entertaining the contrary possibility that no world might ever have existed. It requires you to imagine the world away. If you didn’t entertain these possibilities, even in a hypothetical mode, you simply wouldn’t be following the argument with the right level of sympathy and attention.

The reference to imagination is not tangential here. Because like many powerful arguments, these philosophical arguments work by mobilising our imagination, whether in more or less direct ways. Leibniz’s vivid example of the concatenation of book replicas is a prime illustration of an appeal to the imagination to crystallise ideas that would otherwise remain highly abstract. We find an equally direct if less vivid invitation in al-Kindī’s imagined additions and subtractions from the imagined body of the universe. Less direct yet still present is the invitation represented in his suggestion that if we try sending our minds back toward the infinity of time, we will fail to make it back to the present in which we exist, and that if we follow the chain of time backwards segment by segment we will hit upon the cliff-edge of pre-creational “nothing.” To take in al-Kindī’s philosophical prose *is* to imagine our way into nothing.

The same appeal to the imagination can be found in the work of David Bentley Hart, a writer whose special interest in this context partly lies in the salient place he assigns to the experience of wonder within the philosophical narrative of his 2013 book *The Experience of God*. Hart’s project in this book is not a wholly natural consort to the genre of philosophical arguments I have outlined. He modestly describes his project as a mere “lexicographical exercise,” which aims to offer a definition of the concept of God as understood among the theological and philosophical arms of the major global religions. Hart’s stated concern is not with rational proofs for God’s existence. This is partly tied to a sense of scepticism about the power of such proofs to change minds (Hart 2013, 83-84). Instead, Hart places his trust in the power of experiences. Some of the most important insights, in his view, are already present in our experience, and can be harvested “by way of a contemplative and moral refinement of that experience” (2013, 44). First and foremost among the experiences that interest Hart is the one I have been designating as existential wonder, when we suddenly become aware of the “utter uncanniness of the reality we inhabit” and we are shocked by “the sheer unexpected ‘thereness’” of everything around us (2013, 88, 91).

Hart does not, to my knowledge, explicitly describe the aim of his own narrative as that of helping produce that “contemplative and moral refinement” and thereby reconnecting his reader to that experience of mystery. Yet this is a natural way of receiving his aim. And if this experience crystallises for the reader following Hart’s narrative, it will partly be by working her way through a series of philosophical arguments. Because while Hart’s stated concern is to define a concept, that means illuminating the place this concept occupies in “logical space.” That in turn requires saying something about traditional proofs for God’s existence, notably including cosmological arguments, which show why the concept of God occupies a space that “no other kind of causal explanation can intrude upon” (Hart 2013, 99). It also involves philosophically evaluating the coherence of naturalism as a total worldview, and interrogating the claim that science could ever provide an answer to the question of existence and explain the basic fact that things are.

Many of the arguments featured in classic discussions of God’s existence find a limpid restatement in Hart’s account. So do the appeals to the imagination they harbour. In one of his multiple passes at naturalism, Hart draws a (traditional) distinction between “accidental” and “essential” causes to explain why even if one holds that the world did not have a beginning in time, the explanatory need opened up by the world’s contingency will remain. A hallmark of the relation established by accidental causes is that “the consequences of a particular thing can continue indefinitely after that thing has disappeared, because all causes in the series are ontologically extrinsic to their effects.” A classic example is the causal relation between a man and his grandson: “by the time the latter is sired the former may have been dead for decades . . . The relation is one of antecedent physical history, not of immediate ontological dependency, and so the *being* of the grandson does not directly depend upon the *being* of his grandfather.” To explain existence, you need a different kind of cause. “The ultimate source of existence cannot be some item or event that has long since passed away or concluded, like a venerable ancestor or even the Big Bang itself—either of which is just another contingent physical entity or occurrence—but must be a constant wellspring of being, at work even now.” In traditional religious thought, the metaphor is that of the flame of a candle or lamp and the light it casts in a room. Snuff out the flame and the whole room goes dark. The modern version of that is that of an electric current that “if shut off at the source, ceases along all power lines at once” (Hart 2013, 103-104).

4.

I have been suggesting that religiously motivated philosophical narratives, paradigmatically cosmological arguments for God’s existence, can provide the cognitive education that makes the fundamental experience of “cosmic” or “existential” wonder available to us. They do so, at the simplest level, by inviting us—as part of the *bona fides* of seriously engaging with the argument—to think ourselves into the proposition that the world’s existence is not self-explanatory and to temporarily entertain the possibility that nothing at all might have existed. Direct and indirect appeals to the imagination form an important part of the means through which such narratives make this possibility thinkable for us.

My view stands in contrast with the account presented by Stephen Evans in *Natural Signs and Knowledge of God* in the context of a broader re-evaluation of the nature of traditional arguments for God’s existence. In Evans’ view, these arguments are grounded in, and represent attempts to rationally articulate, what he calls“natural signs,” which point to God’s reality in a non-inferential manner. Thus, the beneficial order we observe in the natural world is the natural sign that finds a rational articulation in teleological arguments for God’s existence. The natural sign that lies at the core of cosmological arguments more specifically, in Evans’ view, is the experience of cosmic wonder. “[W]hat lies at the bottom of all or at least most of the forms of the cosmological argument is a certain experience of the world or objects in the world, in which they are perceived as mysterious or puzzling, crying out for some explanation” (Evans 2010, 60). It is this fundamental experience that cosmological arguments attempt to rationally articulate. As a natural sign, this experience is prior to the arguments, their stimulus rather than their cognitive product; and it is the power of this fundamental experience that explains where such arguments derive their power. Central to Evans’ account of this relation is a view of cosmic wonder as immediate and irreducible. “We simply perceive the universe as surprising; on reflection we might cite various characteristics of that universe as the ground of the perception, but the perception itself is immediate and primary” (Evans 2010, 61).

As I said earlier, it is no part of my purpose to exclude the plurality of routes through which this experience may arise, and to legislate against the possibility of a less mediated generation of it. My own sense is that this experience is less widespread among ordinary people, and more of an intellectual achievement, than Evans hypothesises.[[8]](#footnote-8) All I would note here is that it is perfectly legitimate, faced with a profession of puzzlement or surprise, to ask a person for their *reasons* for being puzzled or surprised. And it is arguably a perfectly legitimate expectation that a person be able to answer that question (even if this may sometimes require an effort). If the claim that cosmic wonder is an immediate and irreducible perception involves denying this simple point, it will seem unconvincing. More than any other type of wonder, cosmic wonder seems hard to separate from the thinking of thoughts and the giving of reasons. Reversing Evans’ causal order, my suggestion has been that it is precisely philosophical arguments that may mediate our wonder and help us think the kinds of thoughts that make it possible. Faced with a question about why we feel surprised at the existence of the world, their reason-giving would feature centrally in our response.

Yet this now pulls into a view a question that many may have felt to have shadowed my above discussion. Because in fact taken most broadly, the point just made about this specific form of wonder is one that many theorists would be inclined to generalise to all emotional experiences. On a prominent view, all emotions involve what I loosely called the “thinking of thoughts.” All emotions involve (on the strongest view, consist in) some form of judgement or cognition. It is this cognitive saturation, crucially, that provides us with a handle for critically evaluating particular instances of emotion. Many theorists distinguish between backward-looking and forward-looking justifications of emotions, or in another idiom, between the cognitive and strategic rationality of emotions (see e.g. briefly de Sousa 1987, 163-65, and Greenspan 1988, 8-9). The former concerns their representational capacity, while the latter concerns their capacity to stimulate actions which may bear different relations to an individual’s interests and well-being. For any emotion, put simply, we might ask: is it epistemically appropriate, and are we served by the actions it makes us want to do? The most basic illustration of the former kind of assessment is where emotions depend on false beliefs, as when a feeling of anger is provoked by the mistaken belief that someone intentionally harmed us. It is easy to imagine cases where wonder might be criticised on such grounds. On the colourful side of the range, Derek Matravers gives the example of someone who “might think a certain child is the reincarnation of former beings, who carries within him or her memories drawn from several lives across the ages. Such a thought makes a difference to their experience, and they regard the child with wonder.” Yet if the belief is false, the feeling of wonder it generates loses its warrant (Matravers 2012, 176).[[9]](#footnote-9)

Yet if the cognitive constituents of an emotion provide different kinds of leverage for critical appraisal, the particular emotion I have considered represents an unusually stark case. Cosmic wonder, as I have described it, is not merely *constituted* by cognition in a softer sense but *caused* by it in the strongest possible sense, emerging in direct response to philosophical reason-giving and structured argument. As such, this is a sense of wonder that depends on reasons more than most. And this now raises an obvious question: Doesn’t the *validity* of this wonder therefore depend on the strength of these reasons? To the extent that this experience of wonder is constituted by argument, doesn’t it stand or fall with the argument?

I have said little so far about the qualities of the experience itself. Yet it would be difficult to keep its phenomenology out of the equation if one wanted to explain how this kind of question might acquire its motivation and urgency. Although Hart does not explicitly refer this experience to the operation of philosophical argument—I can think of no first-hand descriptions of argument-induced cosmic wonder—what he says about its quality captures some of its most important aspects, above all the powerful sense of significance it carries. During this experience, he writes

we find ourselves brought to a pause by a sudden unanticipated sense of the utter uncanniness of the reality we inhabit, the startling fortuity and strangeness of everything familiar: how odd it is, and how unfathomable, that anything at all exists; how disconcerting that the world and one’s consciousness of it are simply there, joined in a single ineffable event. When it comes, it is a moment of alienation from the ordinary perhaps, but not one of disaffection or loss; as long as the experience lasts, in fact, it has a certain quality of mystifying happiness about it, the exhilarating feeling that one is at the border of some tremendous and beautiful discovery. One realizes that everything about the world that seems so unexceptional and drearily predictable is in fact charged with an immense and imponderable mystery. In that instant one is aware, even if the precise formulation eludes one, that everything one knows exists in an irreducibly gratuitous way: “what it is” has no logical connection with the reality “that it is”; nothing within experience has any “right” to be, any power to give itself existence, any apparent “why.” The world is unable to provide any account of its own actuality, and yet there it is all the same. (Hart 2013, 88-89)

As Hart notes, it is an experience that is inherently unstable, and cannot endure indefinitely. Yet while it lasts, it has the thrilling quality of a shattering if uncertain insight, which one struggles to find ways of accommodating long after it ends. This profound sense of significance is also conveyed by Wittgenstein in his discussion of the topic. In the spare remarks he offers on the experience in the “Lecture on Ethics” (Wittgenstein 1965) possibly the most telling is his decision to class existential wonder as an experience of absolute value.[[10]](#footnote-10)

And yet if the experience owes its power to an intuition of insight, what kind of insight is this really? It is precisely the phenomenological importance of the experience that creates a stake in its epistemic warrant and makes its rational dependence a point of anxious concern. The potential vulnerability of the experience is the fragility of a good. And it takes little to determine that the risk is a real one. Philosophical arguments for the existence of God are notoriously inconclusive, as even their most sympathetic discussants admit. In John Hick’s view, neither theistic nor anti-theistic arguments deliver a clear verdict, for “the special evidences to which they appeal are also capable of being understood in terms of the contrary worldview” (Hick 1989, 12)—though for Hick, this inconclusiveness is less a bug than a feature, marking the inherent “ambiguity of the universe” which permits both theistic and naturalistic responses and makes possible the uncompelled response in which religious faith consists. In developing his own understanding of theistic proofs as grounded in natural signs, Evans takes his point of departure from a similar observation about the divisiveness of these proofs and their failure to elicit conviction (Evans 2010, 1-3).[[11]](#footnote-11) It is sometimes wryly observed that philosophy makes no progress. Yet this seems truer of this part of the philosophical curriculum than of any other.

Cosmological arguments, on which my focus has fallen, are no exception to this rule. All of the arguments referred to above have been the subject of fierce debate, with even the most fundamental intuitions they mobilise contested by their detractors. Take the principle of sufficient reason, which assumes we can keep asking “Why?” of every phenomenon including the totality of phenomena we call the world. Perhaps we are mistaken in thinking that the principle transfers from the parts to the whole, and that because it makes sense to ask for explanations for this thing or that, it also makes sense to ask for an explanation for everything there is. The very concept of the “whole,” Hume suggested, is merely an “arbitrary act of the mind” (Hume 1998, 56)—the human mind machinating concepts and positing them of reality. Others, like Wittgenstein, might query whether the human mind can grasp the *absence* of the whole and truly comprehend the possibility that there might have been “nothing” in place of a world, without which the expression of wonder becomes nonsensical (Wittgenstein 1965, 8-9).

Even the most basic propositions in which the sense of cosmic wonder finds expression, such as that “it was possible that there be nothing” or that “the world might not have existed,” would seem to disintegrate on the philosophical analyses of modal statements offered by certain stripes of modal logicians. David Lewis, for example, appears to simply build the possibility that there might have been nothing out of the system in his realist account of possible worlds.

If a world is a maximal mereological sum of spatiotemporally interrelated things, that makes no provision for an absolutely empty world. A world is not like a bottle that might hold no beer. The world *is* the totality of things it contains, so even if there’s no beer, there’s still the bottle . . . Minimal worlds there can indeed be. There can be nothing much: just some homogeneous unoccupied spacetime, or maybe only one single point of it. But nothing much is still something, and there isn’t any world where there’s nothing at all. That makes it necessary that there is something. (1986, 73)[[12]](#footnote-12)

It is these kinds of positionings that Hart likely has in mind when he puts clear blue water between himself and those who claim that “the question of existence is an inept or false query generated by the seductions of imprecise grammar” (Hart 2013, 90). Yet can such claims be dismissed out of hand, simply declaring that no manner of intellectual legitimation is required? In the case I’ve been considering at least, where the feeling of wonder—which registers the relevance of this question—has been generated through a process of inquiry whose grammar or propositional content eminently invites scrutiny, this would on the face of it seem tough to argue.

From one regard, the problem I have raised may appear paradoxical. Because if one experiences a feeling of wonder at all as a result of following the progress of an argument, this would imply that one has, at some level, been *persuaded* by that argument. So why must the issue of rational warrant come up from the perspective of this type of inquirer? Yet here is where the ecological conditions I mentioned earlier—the sympathy, care, and attention with which one confronts an argument—provide some context. Because it is possible to follow an argument in an “as-if” or hypothetical mode, to give a kind of hypothetical assent to its elements, as part of a commitment to engaging with it in good faith and giving it a serious hearing. (One’s amenability to the conclusion will no doubt play a role here.) Yet this assent is only provisional, and is liable to be withdrawn when critical distance is fully re-established. Many a philosophical hypothesis, as Hume pointed out in a slightly different context, does not survive its exit from the conditions in which it was earnestly entertained.

The point at issue, to repeat, is not about the rational warrant for a substantive conclusion concerning God’s existence—the specific conclusion these kinds of arguments are designed to press. It is about the rational warrant for an emotional response directed to the world’s existence, which incorporates an acknowledgement that its existence requires explanation. These two epistemic stances are in principle separable. One can hold that the world’s existence requires explanation (is surprising) while remaining agnostic about the conclusion that God supplies that explanation, though it certainly makes one more receptive to the latter conclusion (making it a “living hypothesis,” in William James’ wording (2000, 199)). Yet as I have suggested, the former stance, too, represents a contested hence non-trivial commitment. Both stances emerge out of the same reason-giving process, and the challenges that beset it affect them alike. The possibility this raises it that cosmic wonder might ultimately rest on an error—and our wonder would not survive the discovery.

5.

How should one respond to this quandary? If it is a quandary at all, as I have said, this is due to the strong sense of significance the experience carries. It is this phenomenological weight that gives one a stake in securing its rational credentials. Is the only option, then, to try to “save” the experience by *fighting* for these credentials—mastering the intricacies of these arguments, outfitting oneself with the necessary technical expertise, and tackling philosophical objections head-on to demonstrate that this wonder is in fact error-free?

This is not an approach I’ll say much about, let alone try to carry out in the pages of this essay. All I will note about it is that it is not the approach on which the type of person who experiences this quandary as a quandary would be inclined to wager. This is mainly because it is precisely that—a wager. These philosophical debates, after all, are as old as the hills, and have exercised and divided some of the most brilliant minds. They are also debates in which successful contribution depends on skills of reasoning that are in turn partly dependent on contingencies of natural endowment. Even if these debates could be settled to universal satisfaction, the idea that one could be the chief agent of this result would seem hubristic if it wasn’t so foolhardy. From the perspective that makes this problem appear as a problem—a perspective shaped by a strong sense of significance which generates an anxiety about the rational vulnerability of the experience—to count on success of this kind is simply to trade one vulnerability for another.

But if we exclude this approach—securing this experience of deep wonder through a defence of the reason-giving process that founded it—how else can a warrant for it be found? I suggested above that it would be difficult to simply place this experience beyond the need for intellectual legitimation of this type, given the intellectual means through which it was produced. Yet I would now like to consider whether there isn’t after all a more principled way of making that case. More specifically, I would like to consider whether there might be a way of legitimating the experience that involves no reference to (and is not contingent on the outcome of a critical scrutiny of) the rational means that produced it, but is rather grounded in the qualities of the experience itself.

From the perspective that makes this problem appear as a problem, this is arguably the approach that will seem most natural and compelling. And that is because it pivots on, and involves honouring, the basic perception of this experience as a good. Hart gave voice to this fundamental perception earlier when he wrote about the peculiar sense of “happiness” this experience carries. Yet what kind of “good” is this happiness? On the one hand, it is a type of happiness that cannot be reduced to a positive hedonic sensation or subjective feeling of pleasure. As Hart conveys, it owes part of its quality to a certain sense of promise, of something not yet attained but intimated in the experience as a possibility. He describes it as an “exhilarating feeling that one is *at the border* of some tremendous and beautiful discovery,” not in possession of some definite insight. The indefiniteness of its insight gives the experience an ambivalent quality, as Anders Schinkel writes; for while “it opens the door to mystery, it does not resolve it” by offering definite answers (Schinkel 2018, 306). In this regard, it has the character of an unfulfilled longing.

Yet not all longing registers as a kind of pain (contrary to what Schopenhauer and other philosophers have sometimes argued). And some kinds of longing can feature as objects of value—first-order desires desired in a second-order way. The desire that others not suffer, or the longing for justice, are perhaps the clearest examples. That we have these kinds of desires tells us something about who we are, shaping or confirming our identity. So, I would suggest, does the type of desire that enters the phenomenology of existential wonder.[[13]](#footnote-13) Part of the felt significance of the experience lies in not in what it says about the world but what it says about ourselves as subjects of that experience. The sense of wonder we experience when we are struck by the fact that “nothing within experience has any ‘right’ to be, any power to give itself existence,” in Hart’s expression, so that we ask ourselves why anything exists at all, cannot be divorced from a sense of astonishment at our own ability to formulate such thoughts and pose such questions. In this wonder—in the desire to understand—we discover ourselves. The desire itself seems to deliver a kind of truth; we know less than we imagined, yet more is possible than we thought. It supports the hope that a new transformative understanding of ourselves and our world might after all be possible. In a minimalist vein, Robert Solomon has described spirituality as simply a “larger sense of life” (Solomon 2002). On these terms, we would have no difficulty recognising this as a fundamentally spiritual experience. For the duration of the experience, our vantage point is enlarged by a desire and hope for a deeper understanding of our nature and the nature of the reality we inhabit. Although the experience may ultimately bring no substantive insight beyond this, part of its special “happiness” lies in the felt truth it carries.

This is by no means an attempt to provide an exhaustive characterisation of the phenomenology of the experience. Yet I have tried to at least indicate the kind of features that constitute this as an experience of intense meaningfulness and significance, and that might lead us to bracket the specific means through which it was produced and consider their rational assessment irrelevant to its warrant. But it is important to be precise about what this claim involves. This is not to say that the means through which the experience was produced are entirely irrelevant. In fact, they enter into its phenomenological warrant necessarily, given that the wonder we experience at our ability to formulate certain kinds of questions and thoughts is a wonder at a capacity that was *exercised and exemplified* by following a certain set of arguments and train of reasoning. Yet for this, the strength or weakness of the specific arguments is immaterial. What matters is not that *these* reasons work, but that *reason* does.

In considering how the means through which an experience is produced enter into an assessment of its legitimacy, it is instructive to consider a similar (if not entirely identical) experience of wonder where the issue of means comes up equally if not even more sharply. In the last couple of decades, there has been growing interest in the scientific community in the psychological effects of a class of substances often referred to as “psychedelics,” which include psilocybin, mescaline, and LSD. These effects vary across individuals, and they can be tracked over different levels. Yet an element that recurs in descriptions of the mental state generated by a number of these substances is a sense of wonder. As Michael Pollan puts it in his recent book *How to Change Your Mind: The New Science of Psychedelics*, referring to LSD more specifically, one of its apparent effects is to “disable . . . conventionalized, shorthand modes of perception.” In so doing, it “restores a childlike immediacy, and sense of wonder, to our experience of reality, as if we were seeing everything for the first time” (2018, 9).

In the cultural history of the last century, it is hard to think of someone who conveyed the “Adamic” quality[[14]](#footnote-14) of this perception quite as powerfully as the English writer Aldous Huxley. In a short tract titled *The Doors of Perception*, Aldous Huxley set out to document the experience that followed his ingestion of half a gram of mescaline one day in 1953. His perception of the world underwent a startling transformation. Colours became more vivid; ordinary things like chairs and tables took on a miraculous aspect (“how miraculous their tubularity, how supernatural their polished smoothness!” (2017, 13-14)). Huxley found himself gazing in fascination at his flannel trousers (“Those folds in the trousers—what a labyrinth of endlessly significant complexity! And the texture of the gray flannel—how rich, how deeply, mysteriously sumptuous” (2017, 21)). In Huxley’s experience, we will have no difficulty recognising a dramatic instance of wonder. This was an experience he repeatedly connected to a heightened sense of meaning and significance. Books on the shelves glowed with “a profounder significance,” theirs colours “so intense, so intrinsically meaningful, that they seemed to be on the point of leaving the shelves to thrust themselves more insistently on my attention” (2017, 11). Throughout, Huxley used a strong religious vocabulary to articulate that sense of significance. What he felt he was seeing was “what Adam had seen on the morning of his creation—the miracle, moment by moment, of naked existence” (2017, 9). He was beholding the “unfathomable mystery of pure being” (2017, 25). Huxley described it as a “sacramental” vision of reality (2017, 13).

Huxley has been far from alone in connecting this pharmacologically produced experience to a powerful sense of meaningfulness. These terms also feature prominently in the results reported by a landmark 2006 scientific study of the effects of psilocybin (Griffiths et al. 2006), which provided a key fillip for the renaissance of scientific research on the topic. In the core experiment, thirty volunteers were administered doses of psilocybin over two or three sessions conducted at two-month intervals. Studying the persisting effects of the experience, the authors of the paper reported that “67% of the volunteers rated the experience with psilocybin to be either the single most meaningful experience of his or her life or among the top five most meaningful experiences of his or her life,” its level of significance similar “to the birth of a first child or death of a parent” (Griffiths et al. 2006, 276-77). The title of the paper said it all: “Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance.”

There are important differences between the type of wonder that Huxley describes and the one I have been considering. Above all, the sensuous quality and perceptual focus of Huxley’s wonder stands in sharp contrast to the intellectual, concept-driven character of the wonder I discussed.[[15]](#footnote-15) Yet there also important similarities. Both involve an apprehension of mystery, an orientation to being in its mysteriousness, and an intense sense of significance.[[16]](#footnote-16) Both thereby draw us into a space where we view things with a “larger sense of life.” Yet no less importantly, like the concept-driven wonder I have described, this pharmacologically induced wonder also invites a pressing question about how the means used to produce it affect its legitimacy. “This is how one ought to see,” Huxley writes at one point; this is “how things really are” (Huxley 2017, 26). Yet how could this normative claim be validated? Powerful and transformative as it may be, what kind of *warrant* does this mode of perception have, taken as the result of ingesting a finite amount of a particular chemical compound? Our former question about whether cosmic wonder is valid unless founded on the right reasons is here reformulated as a question about whether wonder is valid unless grounded in the proper causes. Scepticism in the first case would be voiced in the question, “Is it rational?” Scepticism in the second would most likely be voiced in the question, “Is it natural?”

This kind of scepticism, as Pollan notes, is a hallmark of how such pharmacologically induced experiences are commonly received by outside observers. They stand in marked contrast to the way in which subjects themselves think about these experiences, even long after the event. Several decades before Huxley sat down to ingest his half gram of mescaline, William James outlined a number of key features that characterise mystical experiences. The most important, for our purposes, was what he designated as their “noetic quality.”

mystical states seem to those who experience them to be . . . states of knowledge. They are states of insight into depths of truth unplumbed by the discursive intellect. They are illuminations, revelations, full of significance and importance . . . and as a rule they carry with them a curious sense of authority for after-time (James 1982, 380-81).

Put differently, these kinds of experiences carry a kind of intrinsic authority that makes them appear self-validating to those who have them. Although James did not have pharmacologically induced mystical experiences in mind when writing these lines, his remarks capture well the attitude of many of their subjects, for whom the authority of the experience is not undermined by consideration of the means that produced it. “How can you be sure this was a genuine spiritual event and not just a drug experience?” Pollan presses one of his interviewees. “It’s an irrelevant question,” she responds. “This was something being revealed to me” (Pollan 2018, 275). Huxley himself provides an especially suggestive expression of this attitude when he writes in one place: “What is important is less the reason for the experience than the experience itself” (Huxley 2017, 25).[[17]](#footnote-17)

The case of pharmacologically induced wonder raises special questions that do not attach to its philosophically induced counterpart. Before taking a stance on it, certainly, one would have to say far more about the biochemical foundations of human experience, or about the difference between “natural” and “unnatural” chemical compounds. Similarly, the “noetic quality” James describes appears to be stronger in the case of this wonder than its philosophical counterpart. The higher receptivity to doubt in the latter case reflects its intellectual character, though also its weaker cognitive or informational content compared with its pharmacological counterpart. This makes it necessary to recover the internal warrant of the experience through some type of rational articulation, as attempted here. Yet in both cases, the internal qualities of the experience play a determining role in securing this warrant.

Yet this kind of phenomenological validation, as the above will have made clear, must be understood more broadly than the term “internal” suggests. These internal qualities are not, as I noted earlier, simply a matter of the positive valence or hedonic feel of the experience, which can in fact be ambivalent. In both pharmacologically and philosophically mediated wonder, the defining quality is a sense of significance tied to the “larger sense of life” they evoke, which crystallises new ways of thinking about ourselves and about the reality we inhabit. Such experiences, while intrinsically valuable qua experiences, can also have important implications for broader well-being. In the case of pharmacologically induced wonder, this connection is supported by the 2006 study just mentioned, in which several participants recorded an important increase in life satisfaction following their psilocybin experience (Griffiths et al. 2006, 277).[[18]](#footnote-18) Although research in this area is ongoing, recent studies appear to confirm this connection.[[19]](#footnote-19)

Does philosophically induced wonder carry similarly powerful consequences for well-being in the longer term? The answer to this question is not equally obvious, for reasons that point to an important difference between the two experiences that was already alluded to. The cognitive content of this type of wonder appears less definite and substantive (cf. Schinkel 2018) than that of many of the experiences described by consumers of psychedelic substances, making it less likely to have comparably transformative effects. That experiences of awe and wonder in general can make a significant contribution to well-being is a case being increasingly made, and is reflected in the interest being taken in these emotions by positive psychologists (e.g. Peterson and Seligman 2004). Though the empirical evidence does not yet seem ironclad, and the types of experience on which empirical studies focus are very different from the one I have been considering, part of this appears to rest on the sense of “connectedness” these emotions induce—a feature they share with this particular form of wonder.[[20]](#footnote-20) More generally, there is reason to think that the sense of hope, epistemic humility, intellectual openness, and enlarged self-awareness this particular experience nourishes would make an overall positive contribution to well-being.

There are empirical questions here, certainly, that can take fruitful investigation. Yet as defenders of a more objective conception of happiness or *eudaimonia* have argued, our character and our flourishing do not simply relate as cause and effect. Who we are is an essential part of our flourishing, rather than an extraneous means to it. If we take this view, the question whether this philosophical wonder contributes to our well-being will partly turn on the question whether we want to be the kind of people we become through the experience.

6.

In the above, I outlined one way in which the experience of existential wonder could be defended against the potential vulnerability of its rational foundations. This defence involves looking away from the reason-giving that produced the experience and locating its warrant in features of the experience itself. This form of internal validation entails considering the broader place this experience occupies in, and the impact it has on, the life of its subject.

Taken in this broader sense, this defence aligns itself with what I earlier described as the “forward-looking” justification of emotions, which attends to their “instrumental” or “strategic” rather than “cognitive” rationality. A purely instrumental approach to the warrant of this experience would not seem satisfying. Even though we often accept instrumental evaluations of our emotions, particularly where these concern *patterns* of emotional response (“Your anger issues are destroying your relationships,” “This kind of anxiety is no way to live”), these kinds of analyses can also be alienating. From a first-person viewpoint, we tend to think of our emotions as rational in the *cognitive* sense—as appropriate to their object, not merely as helpful for our lives or conducive to our happiness. This is all the truer in this case, where wonder has been generated through unusually direct cognitive means. While the proposal I outlined has not taken a purely instrumental form, it may still be asked: Is there some way in which the rationality of the experience could be defended on terms more relevant to this means?

If this means a defence that manages to circumvent the philosophical battlefield around natural theology arguments, and that is inoculated against philosophical objections, that would be hard to come by. All I can do here, as a modest alternative, is outline what I think of as one of the leanest ways of understanding the intellectual workings of these arguments. To properly follow an argument, I suggested earlier, involves allowing oneself to entertain intellectual possibilities. These possibilities, in the case of some of the prime instances of the cosmological argument, include the proposition that the world’s existence requires explanation, which involves entertaining the possibility that no world might ever have existed. Some of the ways in which these arguments make these possibilities thinkable for us is by working on our imagination: al-Kindī inviting us to follow time back rail by rail; Leibniz asking us to follow the states of the world back book copy by book copy. Yet on another level, we could describe their work more basically as a matter of giving clearer content to existing concepts—of making certain *concepts* (more) thinkable. It could be said that what makes us experience the need for an explanation of the world’s existence is most simply the fact that, after many years as master speakers of ordinary language, we for the first time (to use a colloquial expression that seems especially apt) “wrapped our mind” around the concept of “world.” We enclosed the world in our minds, as a limited whole. The sense of wonder was the result of our enclosing the world in a concept and then being able to look beyond it. It was a result of the mind’s natural surpassing of a limit. “Limited,” it may be demurred, is what a specific *argument* makes it out to be: and that is in question. Yet my point is that it is natural to us to enclose things in concepts, and then to look beyond the limits of this enclosure—as natural as thinking and the ordinary idea of a “world,” even if we may need external help for its content to become fully available to us.

Philosophical arguments are certainly not the only way in which such concepts can become thinkable for us. The representation of the world as a limited whole is after all also supported by the best current scientific hypothesis about the origins of the universe. My account has been open to acknowledging the plurality of routes through which existential wonder might become available to us, or be nourished once it does. While we can be educated into this type of wonder in a variety of ways, the special role of theistic arguments in shaping the “thinking” that makes this “feeling” possible should lead us to look at the value of a theological education with new eyes. Like all philosophical arguments, such arguments work by making things we took for granted appear strange or wondrous. As such, they are a celebration of our capacity to think. Far more than other philosophical arguments, these arguments are a source of wonder at this capacity. We don’t need to agree with their conclusions to make this wonder our own.

REFERENCES

Adamson, Peter. 2007. *Al-Kindī*. Oxford: Oxford University Press.

Cottingham, John. 2014. *Philosophy of Religion: Towards a More Humane Approach.* Cambridge: Cambridge University Press.

Craig, William Lane, and J. P. Moreland (eds). 2009. *The Blackwell Companion to Natural Theology*. Chichester; Malden, MA: Wiley-Blackwell.

Craig, William Lane, and James D. Sinclair. 2009. “The *Kalam* Cosmological Argument.” In *The Blackwell Companion to Natural Theology*, edited by William Lane Craig and J. P. Moreland, 101-201. Chichester; Malden, MA: Wiley-Blackwell.

De Sousa, Ronald. 1987. *The Rationality of Emotion*. Cambridge, MA; London: MIT Press.

Elsey, James W.B. 2017. “Psychedelic Drug Use in Healthy Individuals: A Review of Benefits, Costs, and Implications for Drug Policy.” *Drug Science, Policy and Law*. 3: 1-11.

Evans, Stephen C. 2010. *Natural Signs and Knowledge of God: A New Look at Theistic Arguments*. Oxford: Oxford University Press.

Fisher, Philip. 1998. *Wonder, the Rainbow, and the Aesthetics of Rare Experiences*. Cambridge, MA, and London: Harvard University Press.

Fuller, Robert C. 2006. *Wonder: From Emotion to Spirituality*. Chapel Hill: University of North Carolina Press.

Griffiths, Roland R., William A. Richards, Una McCann, and Robert Jesse. 2006. “Psilocybin Can Occasion Mystical-Type Experiences Having Substantial and Sustained Personal Meaning and Spiritual Significance.” *Psychopharmacology* 187: 268-63.

Greenspan, Patricia. 1988. *Emotions and Reasons: An Inquiry Into Emotional Justification*. New York and Abingdon: Routledge.

Hart, David Bentley. 2013. *The Experience of God: Being, Consciousness, Bliss*. New Haven, CT: Yale University Press.

Hepburn, Ronald W. 1980. “The Inaugural Address: Wonder.” *Aristotelian Society Supplementary Volume* 54: 1-23.

Hick, John. 1989. *An Interpretation of Religion: Human Responses to the Transcendent.* 2nd ed. New Haven, CT, and London: Yale University Press.

Hume, David. 1998. *Dialogues Concerning Natural Religion*. Edited by Richard H. Popkin. 2nd ed. Indianapolis; Cambridge: Hackett.

Huxley, Aldous. 2017. *Psychedelics [The Doors of Perception]*. London: Vintage.

James, William. 1982. *The Varieties of Religious Experience*. Edited by Martin E. Marty. New York; London: Penguin.

James, William. 2000. *Pragmatism and Other Writings*. Edited by Giles Gunn. New York; London: Penguin.

[Jungaberle](https://www.sciencedirect.com/science/article/pii/S0028390818303368#!), Henrik, Sascha Thal, Andrea Zeuch, Ansgar Rougemont-Bücking, Maximilian von Heyden, Helena Aicher, and [Milan Scheidegger](https://www.sciencedirect.com/science/article/pii/S0028390818303368#!). 2018. “Positive Psychology in the Investigation of Psychedelics and Entactogens: A Critical Review.” *Neuropharmacology* 142: 179-99.

Al-Kindī, Abu Yusuf. 2012. *The Philosophical Works of al-Kindī*. Translated by Peter Adamson and Peter E. Pormann. Karachi: Oxford University Press.

Leibniz, Gottfried Wilhelm. 1989. *Philosophical Essays*. Edited and translated by Roger Ariew and Daniel Garber. Indianapolis and Cambridge: Hackett.

Lewis, David. 1986. *On the Plurality of Worlds*. Oxford: Blackwell.

Macfarlane, Robert. 2003. *Mountains of the Mind: A History of a Fascination*. London: Granta.

Matravers, Derek. 2012. “Wonder and Cognition.” In *Practices of Wonder: Cross-Disciplinary Perspectives*, edited by Sophia Vasalou, 166-78. Eugene, OR: Pickwick.

Nicolson, Marjorie H*.* 1959. *Mountain Gloom and Mountain Glory: The Development of the Aesthetics of the Infinite*. Ithaca, NY: Cornell University Press.

Nozick, Robert. 1981. *Philosophical Explanations*. Cambridge, MA: Harvard University Press.

Peterson, Christopher, and Martin E. P. Seligman. 2004. *Character Strengths and Virtues: A Handbook and Classification*. Washington, DC: American Psychological Association; New York: Oxford University Press.

Pollan, Michael. 2018. *How to Change Your Mind: The New Science of Psychedelics*. London: Penguin.

Schinkel, Anders. 2018. “Wonder, Mystery, and Meaning.” *Philosophical Papers* 48: 293-319.

Solomon, Robert C. 2002. *Spirituality for the Skeptic: The Thoughtful Love of Life*. New York: Oxford University Press.

Wainwright, William J. (ed). 2005. *The Oxford Handbook of Philosophy of Religion.* Oxford: Oxford University Press.

Wittgenstein, Ludwig. 1965. “Lecture on Ethics.” *Philosophical Review* 74: 3-26.

Wittgenstein, Ludwig. 1979. *Notebooks 1914-1916*. Edited by G. E. M. Anscombe and G. H. von Wright, translated by G. E. M. Anscombe. 2nd ed. Oxford: Basil Blackwell.

Vasalou, Sophia. 2015. *Wonder: A Grammar*. Albany, NY: State University of New York Press.

Yaden, David B., Scott Barry Kaufman, Elizabeth Hyde, Alice Chirico, Andrea Gaggioli, Jia Wei Zhang, and Dacher Keltner. 2019. “The Development of the Awe Experience Scale (AWE-S): A Multifactorial Measure for a Complex Emotion.” *The Journal of Positive Psychology* 14: 474-488.

1. Hepburn (1980) refers to this experience as “existential” wonder, and Schinkel (2018) follows him in this usage. Evans (2010) uses the term “cosmic” wonder in the same sense. I will use both terms interchangeably. [↑](#footnote-ref-1)
2. The experience of the sublime in nature is a case in point. The historicity and cultural evolution of this aesthetic response was central to Nicolson’s analysis in Nicolson 1959. Cf. Macfarlane 2003, e.g. 14-19. [↑](#footnote-ref-2)
3. Which is also why the experience is hard to preserve, as Hart notes: “there is nothing to hold on to in the experience” (2013, 89). [↑](#footnote-ref-3)
4. Analyses or restatements of these arguments can be found in virtually any introduction or companion to the philosophy of religion. For two good starting points, see Wainwright 2005 and Craig and Moreland 2009. [↑](#footnote-ref-4)
5. The most prominent contemporary exponent of this argument is William Lane Craig. For a recent exposition, see Craig and Sinclair 2009. [↑](#footnote-ref-5)
6. For a lucid reconstruction of this argument, see Adamson 2007, 93, and generally chapter 4 for a comprehensive discussion of al-Kindī’s arguments against the eternity of the world. [↑](#footnote-ref-6)
7. The term, and specification, is Nozick’s, in Nozick 1981, 4-8. [↑](#footnote-ref-7)
8. His own examples of “common” experiences of cosmic wonder (Evans 2010, 62) certainly point to some form of intellectual paternity, including the intellectual direction provided within spiritual practices. “Wide accessibility” is an important criterion in Evans’ account of natural signs. [↑](#footnote-ref-8)
9. Matravers’ concern is more directly with the loss of its *value*. [↑](#footnote-ref-9)
10. As I understand his discussion, the value is posited of the *experience*, not the object of the experience (i.e. the world)—though the two valuations are not wholly unconnected. [↑](#footnote-ref-10)
11. This also provides the context for John Cottingham’s alternative proposal (Cottingham 2014, 28-35) that we view these arguments as aiming to clarify the content of theistic faith rather than produce such faith. [↑](#footnote-ref-11)
12. There are many questions one could ask as to how exactly this position engages with the perspective of theistic arguments. As Lewis notes (ibid), his position should not be taken as an attempt to *explain* why there is something instead of nothing. [↑](#footnote-ref-12)
13. Compare my discussion in Vasalou 2015, 207-220, though it is not framed specifically in relation to argument-induced wonder. [↑](#footnote-ref-13)
14. This is Pollan’s term (2018, 25), in the context of describing one of the first experiences of LSD by its accidental discoverer, the Swiss scientist Albert Hofmann; its phenomenology shared interesting ground Huxley’s later experience. [↑](#footnote-ref-14)
15. Huxley in fact sees concepts as profoundly inimical to this Adamic perception. The concept “distorts every given fact into the all too familiar likeness of some generic label or explanatory abstraction” (2017, 63) and stands in the way of a more direct experience of the world. [↑](#footnote-ref-15)
16. In his account of one of his own psychedelic experiences, Pollan frames this perception of the mystery of being in terms far more closely related to the philosophical case I’ve been considering: he experiences a sense of “gratitude for the very fact of being,” viewing the fact “that there is something rather than nothing” as a “gift” and a “miracle” (Pollan 2018, 280). [↑](#footnote-ref-16)
17. Suggestive, though at a slight angle, as Huxley is not referring directly to mescaline as the reason or cause in this context. [↑](#footnote-ref-17)
18. “Seventy-nine percent of the volunteers rated that the psilocybin experience increased their current sense of personal well being or life satisfaction ‘moderately’ (50%) or ‘very much’ (29%).” [↑](#footnote-ref-18)
19. See e.g. the recent review article Jungaberle et al. 2018 and Elsey 2017. These kinds of (in principle objectively measurable) outcomes of the experience provide a partial remedy for the epistemological solipsism that its “noetic quality” entails (cf. James 1982, 422). [↑](#footnote-ref-19)
20. For wonder, see e.g. Fuller 2006, 88-92 (and generally chapter 6); for awe, see Yaden et al. 2019, 476. [↑](#footnote-ref-20)