

Can We Acquire Knowledge of Ultimate Reality?

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Can we acquire knowledge of ultimate reality, even significant or comprehensive knowledge? The answer I wish to offer is that for all we know we can, and there is room to rationally hope that we can. That is true, I shall maintain, whether ultimate reality is divine or non-divine, and if it is divine, whether it is personal or non-personal. At the end of the chapter I shall discuss a common response to my position. However, before presenting and defending my answer, I must first briefly discuss ultimate reality, knowledge acquisition, and kinds of possibility.

Ultimate Reality

In explaining ultimate reality, Peter van Inwagen notes that the meaning of the word ‘reality’ is closely linked to that of ‘appearance’. We typically speak of something *really* being some way in contrast to how it is apparently, or of *reality* when there is an appearance to “get behind” (e.g., the reality of a heliocentric solar system behind the appearance of the heavenly bodies rotating about the Earth). Since realities behind appearances can themselves be appearances relative to still deeper realities, *ultimate* reality, van Inwagen suggests, is the reality that is not an appearance relative to any deeper reality; or perhaps, better, the most general features of such a reality. But what if all that exists is a series of appearances behind appearances *ad infinitum*? Well, then *that*, van Inwagen suggests, will be what ultimate reality is like. So put, it seems hard to deny that there is some ultimate reality.¹

Van Inwagen’s characterization highlights two main features of our intuitive concept of ultimate reality: that there is some way reality is (even if it is all appearances), and that its most general or fundamental features are what count.

¹ van Inwagen (2002), p. 1 ff.

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Although this suffices for our purposes, we need not be committed to its details. Perhaps our intuitive object-attribute metaphysics is deeply mistaken, or the concept of ultimate reality is incoherent for reasons we cannot yet grasp. In the case of a divine ultimate reality, perhaps conceiving God as a “being alongside other beings” or even as “existing” is somehow problematic. I believe, and shall assume, however, that in such cases, if necessary, the discussion in this chapter could be suitably modified to preserve its main arguments.

Knowledge Acquisition

On the matter of knowledge acquisition, I wish to ask whether *we* can acquire knowledge of ultimate reality. At issue is whether a kind of shared or *public* knowledge regarding ultimate reality can be acquired, as opposed to, say, incommunicable private knowledge. Public knowledge is what is sought in science, and other areas, both academic and non-academic (e.g., in everyday shared perceptual experiences, like a crowd watching a sporting event). It involves a common method for justifying beliefs, which is almost certain to result in belief-fixation for anyone who follows the method. It also involves a second-order justified belief to the effect that *there is* a common method that works with virtually anyone. This second-order belief licenses increased confidence in the first-order belief, resulting in epistemically superior justification of the latter.

To illustrate, suppose someone looks up at the sky and forms the first-order belief that there is a strange, luminous object moving in an easterly direction. She may harbor doubts, wondering whether she is hallucinating or imagining, or the street lights are playing tricks with her eyes. However, if she subsequently comes to justifiably believe (second-order) that anyone who looked up would believe what she does—say, because people nearby *do* look up and issue similar reports—she can rightly dismiss her doubts and increase her confidence in her first-order belief.

The operative principle is this. A justified second-order belief that a method for acquiring a first-order belief that P is a good one (in the sense that virtually anyone following the method will acquire the belief) has the following epistemic benefit: it allows one to rule out possibilities that certain errors have crept in to one’s processes of belief-formation—errors due to idiosyncratic psychological tendencies, sloppiness, oversight, biases, etc. To the degree that such errors can be ruled out, one is justified in more confidently believing that P.²

That is why public justification and knowledge are usually epistemically superior to their non-public varieties, and it is why we tend to value them most, as is evidenced

²This will hold whenever there is a non-negligible probability of our falling into error. Where there is little or no probability of error—for example, in simple cases of introspection—publicity will provide little or no epistemic benefit. On this point, and for a useful discussion of publicity in science, see Goldman (1997). For an expanded discussion of issues discussed in this section, see Antony (2013).

by the fact that we seek them out whenever possible. It is also why, I would suggest, that public justifications *intuitively* strike us as so powerful. Consequently, other things being equal (i.e., where quality of knowledge is the only consideration), it is what we should aspire to for ultimate reality as well, even divine ultimate reality.^{3, 4}

Possibility

Consider now the word ‘can’, which refers to the *possibility* of our acquiring knowledge of ultimate reality. There are various kinds of possibility, the most inclusive of which is metaphysical or logical possibility, which for our purposes can be understood as including anything whose concept is not self-contradictory.⁵ Since it is arguably metaphysically possible that bananas might have flown, if that is the only sense in which it is possible for humans to acquire knowledge of ultimate reality, that is not very informative.

A more restricted notion of possibility is natural or nomological possibility—what is possible given the laws of nature. But that is also too open-ended. There are possibilities consistent with the laws of nature that are closed off to us due to our universe’s actual history, and we are interested only in what is possible given that history. We must also assume conditions favorable to human knowledge acquisition: we are not interested, for example, in what knowledge could be acquired in the wake of a global catastrophe in which humans revert to conditions of severe poverty, illiteracy, and lawlessness. Finally, even assuming the world’s history, and conditions conducive to knowledge acquisition, there remain possibilities so improbable as to not merit serious consideration (e.g., maximally intelligent and virtuous humans popping into existence by quantum accident), so these too must be excluded.

It is in fact very difficult to characterize precisely the kind of possibility that is relevant to our discussion. At issue seems to be a kind of *practical possibility*, concerning, roughly, what is possible given that certain conditions in the actual world (like those described in the previous paragraph) are held fixed.⁶ However, there is also an especially strong focus on *psychological possibility*, because knowledge is at least

³For many believers in a personal god, of course, quality of knowledge is not the only consideration. Still, the question of what knowledge humans *can acquire* of a divine reality is largely independent of the question of what knowledge of a divine reality humans *ought to pursue*, all things considered. This chapter concerns only the former question.

⁴Although, if public knowledge of ultimate reality is possible, it would seem that this must be encoded in some kind of first-order representational structure like a theory or model, I shall not assume anything here about the kinds of the representations required—propositional, imagistic, experiential, some combination of these or other forms, etc.

⁵Although metaphysical and logical possibility are often distinguished from one another in various ways, we need not do so here.

⁶For a useful discussion of the concept of practical possibility in the context of political philosophy, see Jensen (2009).

in large part a psychological state. For this reason, and for ease of expression, in what follows I shall speak mainly of (*human*) *psychological possibility*. It must be kept in mind, however, that we are holding fixed all laws of nature, the actual history of our universe, conditions more or less conducive to knowledge acquisition, and the like.

So, is it psychologically possible for humans to acquire significant knowledge of ultimate reality, maybe even full or comprehensive knowledge? I shall argue that we have no clue whether such possibilities exist. This may seem to contradict my earlier assertion that for all we know we *can* acquire comprehensive knowledge of ultimate reality. But as we shall see below, that claim concerns a different kind of possibility: epistemic possibility.

Psychological Routes, Distances, and Limits

To make the case that we can know little or nothing about what is psychologically possible for us to know about ultimate reality, I must introduce a few concepts. Take a *psychological route* to be a path from a mind in an initial state of knowledge regarding some topic to a mind with increased or improved knowledge about that topic (the target state). The psychological route from the initial state to the target state comprises a series of *psychological transitions*—involving the acquisition and refinement of concepts, mental skills and capacities (intellectual, experiential, emotional, etc.), kinds of information, and so on. Psychological routes are to be conceived as *optimal*, in the sense that a route involves the best or most direct way of transforming a mind in the initial state to a mind in the target state. One might think here of the psychological transitions needed to transform a mind with a knowledge of addition into a mind with a knowledge of long division, or into a mind with a knowledge of calculus. Fewer psychological transitions are needed to transform a mind that can add into a mind that can divide than are needed to transform a mind that can add into a mind that can do calculus, and so we can say that the *psychological distance* between the initial and target states is greater in the latter case than in the former.

Our question is whether humans can acquire significant or comprehensive knowledge of ultimate reality. That is to say, we are concerned with a psychological route from **humans' current state of knowledge**—call this initial state of knowledge K^{CurHum} —to a target state that is full or comprehensive **knowledge of ultimate reality**—call this K^{UltReal} . We can think of K^{CurHum} as something like the state of knowledge of a properly functioning, well-educated, emotionally-balanced, adult human mind/brain in the second decade of the twenty-first century. This would include the stock of innate neurophysiological and cognitive-architectural features determined by our genetic makeup, as well as the concepts, knowledge, and skills (scientific, common-sensical, social, moral, etc.) from human culture that are “installed” in the brain during development. Regarding K^{UltReal} , I shall assume for now only that it is a metaphysically possible state for a mind to be in (e.g., an omniscient mind, at least).

In thinking of the psychological route from K^{CurHum} to K^{UltReal} , let us begin with the psychological transitions that an unmodified human brain, with its

genetically determined characteristics and acquired social and cultural representations, is capable of undergoing. Although not inevitable, it seems highly likely that the innate features of the human brain place limits on how much humans can grasp about reality—much as the nature of a cat’s brain prohibits it from understanding the principles of organic chemistry or noncognitive metaethical positions.⁷ If so, there will be a point along the route to K^{UltReal} at which, in order to undergo further psychological transitions, a human brain would have to be altered or enhanced in a way that enables it to acquire new concepts, perform new computations, realize new states of consciousness, etc. Indeed, enhancements or alterations to our neural circuitry may be required at several points along the route to K^{UltReal} . People in the transhumanist movement, and others, believe that in the future humans will employ brain-enhancement technologies to make us vastly smarter, and more capable psychologically in other ways, than we now are.⁸ It could also be, however, that there are deep limits to what any psychologically possible, embodied mind could grasp about ultimate reality. In that case, any remaining transitions to K^{UltReal} would be merely metaphysically possible.⁹

Our Ignorance of What Is Psychologically Possible to Know About Ultimate Reality

Consider the point (assuming there is one) along the route from K^{CurHum} to K^{UltReal} at which the human brain must be altered or enhanced in order to undergo the next transition. That point represents the **maximal** degree of **knowledge** that is psychologically possible for **humans** to attain about ultimate reality, given the current structure of our brains. Call that point K^{MaxHum} . Next, consider the point along the route to K^{UltReal} at which alterations or enhancements to the human or transhuman (hereafter ‘(trans)human’) brain no longer facilitate increased knowledge of ultimate reality. Call that point K^{MaxHum^*} . K^{MaxHum^*} represents the most that is psychologically possible for an altered or enhanced (trans)human brain to know about ultimate reality.

Question: Can we currently know anything, in the sense of public knowledge, about where K^{MaxHum} or K^{MaxHum^*} lie on the route from K^{CurHum} to K^{UltReal} ?

One way of defending an affirmative answer would be to maintain that we *already* are quite close to having public knowledge of ultimate reality. The physicist Steven Weinberg, for example, has put forward such a view in his book *Dreams of a Final*

⁷ See, e.g., Chomsky (1975), Ch. 4; McGinn (1989).

⁸ See Savulescu and Bostrom (2009), Bostrom (2003), Kurzweil (2005), eminent scientists such as Hawking (1996) and Rees (2003), among many others.

⁹ I should add that my assumption that complete knowledge of ultimate reality is metaphysically possible might be false, even if there is an ultimate reality.

Theory.¹⁰ If we already possess full knowledge of ultimate reality (more or less), then we clearly *can* have it—i.e., it is psychologically possible for us to have it. It could thus be said (more or less) that $K^{\text{CurHum}} = K^{\text{MaxHum}} = K^{\text{MaxHum}^*} = K^{\text{UltReal}}$. The trouble with Weinberg's position, however, is that it is extremely controversial, even among those committed to naturalism: many strongly disbelieve it, adopting a wide range of positions on how far we are from a complete understanding ultimate reality. To take one example, the cosmologist Martin Rees agrees with Isaac Asimov¹¹ who

likened science's frontier to a fractal—a pattern with layer upon layer of structure, so that a tiny bit, when magnified, is a simulacrum of the whole: “No matter how much we learn, whatever is left, however small it may seem, is just as infinitely complex as the whole was to start with.”

Although Rees and Asimov are both atheists, on the view they espouse K^{UltReal} is very distant from K^{CurHum} , perhaps infinitely so. And, of course, anyone who believes in a divine ultimate reality will believe that the distance from K^{CurHum} to K^{UltReal} is much greater than Weinberg believes.

Such controversy entails that there is currently no public justification for, and hence no public knowledge of, the truth of Weinberg's position (or Rees' or Asimov's). For even if there is a method (e.g., an argument) that would lead anyone who follows it to adopt Weinberg's (or Rees' or Asimov's) position, in the face of the existing controversy there is no reason to believe (second-order) that such a method exists. Consequently, the epistemic benefits that publicity bestows are unavailable for these positions.

Another way of maintaining that we are already close to having knowledge of ultimate reality comes from religious believers—although the claim here concerns only *certain aspects* of ultimate reality, for example, that it is divine, personal, loving, merciful, etc. The idea, in other words, is that K^{CurHum} is close to *some elements* of K^{UltReal} . Such claims are usually accompanied by a description of the steps that must be taken to acquire knowledge of those aspects of ultimate reality. The steps rarely involve conceptual, theoretical, or other intellectual development, but have more to do with improving one's moral character, performing rituals, performing communicative acts expressing commitment toward, or a desire to enter into a loving relationship with, the deity, and so forth. In such circumstances, it is suggested, the divine ultimate reality, or aspects of it, will often be revealed to the believer in a way that imparts knowledge.¹² However, even if that is true, at most

¹⁰ Weinberg (1992). Weinberg is cautious not to overstate his belief that the final theory is near, offering remarks such as “from time to time we catch hints that it is not very far off” (p. 6), or “[w]e may even be able to find a candidate for such a final theory among today's string theories” (p. 235), etc. See also Horgan (1997).

¹¹ Rees (2003), p. 142; Asimov (1994), p. 472.

¹² Moser (2008) presents a view of this general sort. Questions arise here concerning revelation, an important topic that I cannot adequately treat here due to limitations of space. Suffice it to say that, although public knowledge can be imparted by way of testimony (e.g., when millions of people watch a news program on TV), I would argue that no cases of testimony about the divine that we know of have given rise to public knowledge of the divine, even if private knowledge of the divine has sometimes resulted from such testimony. See Antony (2013).

such knowledge will be private. For, again, there is far too much controversy on these matters at present for there to be public knowledge about them.

There is a third way of arguing that we can know something about where K^{MaxHum} lies on the route from K^{CurHum} to K^{UltReal} . As with the previous two ways, K^{MaxHum} is taken to be very close to K^{CurHum} , but not because K^{UltReal} is close to K^{CurHum} . The reason, rather, is because K^{UltReal} is believed to be so far removed from K^{CurHum} , so radically transcendent, that humans can make no significant progress toward K^{UltReal} whatsoever. Kantian and neo-Kantian views suggest a picture of this sort, as do other views of a radically transcendent divine reality relative to all possible (trans) human representational structures. Once again, however, there is nothing approaching public justification or knowledge regarding such positions.

Since no public justification or knowledge are involved in the above claims that we already know something about where K^{MaxHum} or K^{MaxHum^*} lie on the route from K^{CurHum} to K^{UltReal} , we must take seriously a wide range of possibilities concerning the psychological distance between K^{CurHum} and K^{UltReal} , and the positions of K^{MaxHum} and K^{MaxHum^*} on that route. Is there any hope of our formulating and defending an account of how far (trans)humans can get—i.e., where K^{MaxHum} and K^{MaxHum^*} lie on the route from K^{CurHum} to K^{UltReal} ? A bit of reflection suggests that the answer is ‘no’, and that we must remain very much in the dark about what the psychological possibilities are.

A full understanding of the relevant modal facts about K^{MaxHum} and K^{MaxHum^*} would involve a complete description of the psychological route from K^{CurHum} to K^{UltReal} (i.e., all psychological transitions), and the positions of K^{MaxHum} and K^{MaxHum^*} along the route. To know anything specific about the positions of K^{MaxHum} and K^{MaxHum^*} , one would have to know much about the route itself. But given that we are taking seriously possibilities that the distances between K^{CurHum} and K^{UltReal} and between K^{CurHum} and K^{MaxHum} are not short, how could one know any details of routes in which such possibilities obtain? After all, such routes are made up of psychological transitions through which the (trans)human mind/brain must pass in increasing its understanding of ultimate reality—*transitions humans have not yet undergone*. Consequently, so long as there is any significant distance between K^{CurHum} and K^{MaxHum} , our mind/brains as they are currently configured cannot even *conceptualize* the psychological-developmental terrain through which they must pass to achieve maximal understanding. That is not to say that we currently lack all concepts, experiential capacities, and the like that are necessary to conceive or imagine the route; on the contrary, we almost certainly possess some. But it is unlikely that those we possess would enable humans to conceive any more of the route to K^{MaxHum} than, say, Democritus could have conceived of the route from his ancient atomic theory to contemporary particle physics—even though he possessed some concepts modern physicists employ when thinking about elementary particles (*small, invisible, combine*, etc.). Similarly, if K^{MaxHum} is even somewhat distant from K^{CurHum} , it is unlikely that we can conceive or imagine much, if anything, of that route, and *a fortiori* of the route from K^{MaxHum} to K^{MaxHum^*} and K^{UltReal} . Certainly, we can currently *know* nothing substantive about such psychological routes, and so nothing about where K^{MaxHum} and K^{MaxHum^*} lie on them.

Epistemic Possibilities and Hope

At the outset, I said I would argue that for all we know we can acquire significant or comprehensive knowledge of ultimate reality. And at the end of the section “Possibility” I said that my claim concerns *epistemic possibility*. Let me now explain. According to a common characterization, a proposition P is epistemically possible for a thinker S if and only if P is consistent with everything S believes; or, in other words, if and only if P is not ruled out by any of S’s beliefs.¹³ (A public version of this would appeal to the consistency of P with what we take to be the stock of human knowledge.) The domain of the epistemically possible can thus be conceived as *everything that remains open to us, given what we believe about the world*.

Applying this to the question of what we can know about ultimate reality, we have seen that our ignorance of the psychological possibilities concerning K^{MaxHum} and K^{MaxHum^*} runs deep. But that means that virtually *the entire range of possibilities* regarding lengths of routes, and positions of K^{MaxHum} and K^{MaxHum^*} on them, is left open by our beliefs. Because we have no publicly justified beliefs about the positions of K^{MaxHum} and K^{MaxHum^*} , there is nothing that such (non-existent) beliefs can rule out. So for all we know there may be no divine reality, and K^{CurHum} is close to K^{UltReal} (as Weinberg believes), or far from K^{UltReal} (as Rees believes), or any number of other possibilities in between. Alternatively, if there is a divine reality, then the distance from K^{CurHum} to K^{UltReal} is unlikely to be short, but how long it is is beyond our current capacity to know. Regarding K^{MaxHum} and K^{MaxHum^*} , unless the distance to K^{UltReal} is short or nonexistent, there will be an enormous range of possibilities as to where K^{MaxHum} and K^{MaxHum^*} lie. Perhaps K^{MaxHum} is near to K^{CurHum} but K^{MaxHum^*} is much farther. Or perhaps both K^{MaxHum} and K^{MaxHum^*} are very far off. Maybe $K^{\text{MaxHum}} = K^{\text{MaxHum}^*}$ (more or less), and both K^{MaxHum} and K^{MaxHum^*} are positioned close to a distant K^{UltReal} . Who knows? All of this, of course, is sheer speculation. But that we can speculate so freely is itself an indication of how open these possibilities are relative to our stock of publicly justified beliefs.

So although there are indefinitely many scenarios that are epistemically possible vis-à-vis what we can come to know about ultimate reality, according to a large family of such scenarios, we (or future, enhanced versions of ourselves) can attain a significant degree of knowledge about ultimate reality, possibly even full or comprehensive knowledge. That holds even if the psychological distances are great, and even if ultimate reality is divine. That is the conclusion I set out to defend.

This means there is room for hope that we can go far, even if there exists a divine reality, reaching a point where our knowledge dwarfs anything we now possess (even if it falls far short of full or comprehensive knowledge). Other things being equal, of course, the longer the psychological distance is to K^{MaxHum} or K^{MaxHum^*} , the more time it will take (trans)humans to reach those points. Approaching a very distant K^{MaxHum} or K^{MaxHum^*} could thus take centuries, millennia, or even millions of years. It would thus likely be only our very distant descendants, if anyone, who begin to achieve a

¹³ This common characterization has several problems, but we can ignore them. See Huemer (2007) for one useful discussion.

deep understanding of ultimate reality. Our hopes or expectations for progress in our or our immediate descendants' lifetimes, therefore, must be adjusted accordingly.

Interesting questions arise here about the rationality of hoping for a K^{MaxHum} and K^{MaxHum^*} that is close to K^{UltReal} , and our ability to reach it. Philip Pettit suggests that hope can have a kind of epistemic rationality, but whether it can or not, it at least seems that it can be instrumentally rational.¹⁴ After all, focusing on epistemically possible scenarios in which we acquire significant knowledge about ultimate reality seems certain to increase the probability that we will realize our epistemic potential (i.e., reach K^{MaxHum} and possibly K^{MaxHum^*}), *regardless of where K^{MaxHum} and K^{MaxHum^*} are*. In any event, our epistemic situation vis-à-vis ultimate reality closely parallels our epistemic situation regarding other deep and difficult problems in science and philosophy (they both involve ignorance of psychological possibilities about what we can know, epistemic possibilities that we might make significant progress, etc.), so the story one tells there about the rationality of hope for progress, and motives for engaging in inquiry, should be closely parallel as well.

A Common Response

I would like to end by addressing a common response to the claim that, for all we know, we might acquire significant knowledge of ultimate reality, even a divine ultimate reality. The response does not involve an argument; it is more of a reaction to, or expression of, a strong feeling that humans could never come close to acquiring significant knowledge of ultimate reality, especially God or any other divine reality. This feeling, I believe, is grounded primarily in one's inability to even begin to imagine how we could traverse the vast psychological distance to a rich understanding of ultimate (divine) reality. I believe that this is the most common barrier to people accepting that we might come to know much about ultimate reality (or about other deep problems such as consciousness, free will, etc.).¹⁵

The confusion implicit in this worry, however, should be apparent. Given that we currently lack the psychological resources to see beyond what our current psychological resources permit, we should not *expect* to be able to see along any route from K^{CurHum} to K^{UltReal} . Cluelessness is what we should expect. Our epistemic situation,

¹⁴ Pettit (2004).

¹⁵ For believers in an infinite divine being, it might be thought that the fact that we are finite beings contributes to the feeling that we could never reach K^{UltReal} . But this may come to much the same thing: it is simply very hard to conceive or imagine how we, as finite beings, could come to possess significant, not to mention comprehensive or full, knowledge of an infinite being. Many would claim that having full knowledge of an infinite being would require that one *be* infinite. However, in spite of its *prima facie* plausibility, that is not yet an argument, certainly not one against our acquiring significant or comprehensive knowledge that falls slightly short of full knowledge. I suspect there is also a different factor that sometimes contributes to the feeling that humans cannot acquire significant or comprehensive knowledge of a divine reality—namely, the feeling that we *ought not* attempt to do so because there is something immoral, arrogant, blasphemous, etc. in the pursuit. Although there is much to be said about this issue, I believe that, even for such believers, the factor described in the text would often suffice on its own to generate the feeling that we cannot reach K^{UltReal} .

after all, would be the same for a somewhat close K^{MaxHum} and a very distant K^{MaxHum} (we would be unequipped to conceive the routes to either of them), so our epistemic situation in itself can provide no reason for disbelieving that K^{MaxHum} (or K^{MaxHum^*}) is very distant, and possibly close to K^{UltReal} .

This conclusion can be strengthened by reflecting on conceptual revolutions in the history of human thought, and how they transform people's visions of reality. How the world looks after a conceptual revolution in general could not have been glimpsed prior to the conceptual revolution. Longstanding problems viewed from a post-conceptual-revolution perspective often take on an entirely new character, which also could not have been predicted (or conceived) before the conceptual revolution. One need only imagine a dozen or so conceptual revolutions of Einsteinian proportions over the course of some centuries or millennia to get a sense of how easily the (trans)human *commonsense* perspective on reality could become incomprehensible and alien to us. However, for all we know, such changes might not be very far from K^{CurHum} , relatively speaking, and the psychological distance to K^{MaxHum} or K^{MaxHum^*} might be much further. Viewed in this light, it should seem obvious that we should not expect to be able to glimpse *how* we might come to acquire rich, detailed, possibly even comprehensive knowledge of ultimate reality. But that does nothing to weaken the claim that, for all we know, we might in time acquire comprehensive knowledge of the most fundamental and deepest aspects of reality.¹⁶

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