

Why?

Dr. Terry M. Goode

Good morning!...Thank you Brother Bob for your kind introduction, and for being my service leader today...I have an extra mic here in case there are any announcements that come up during the message! Thank you Beth for sharing your talent...You always beautifully match the music to the message...And, thank you to the fellowship for the opportunity to speak today. I consider it an honor and a privilege.

Unitarians believe in the interdependent web of all existence...Principle #7. They also believe in the free and responsible search for truth and meaning...Principle #4. Today, I hope to illustrate the latter by asking an important question about the former...*writ large*..., that is, by asking a question about the origin and nature of the interdependent web of all existence, i.e., *the universe*. Only you will be the judge if the message represents a *free* and responsible search for truth and meaning, and if it furthers your understanding of all existence. For full disclosure, I note that the search for truth today is not really *free*...because the UU is paying me to speak!...

The central problem of ontology, for over 3,000 years, has been the question: ***What is there?*** Philosophers mean by this, what is the number and nature of the kinds of things that exist? The question is said by some to be the shortest philosophical problem in English, expressible in just *three* monosyllabic words. *Not so!* The shortest philosophical problem in English is just the question: “*Why?*”... which was *the* question put on the blackboard at Radcliffe College (then a subsidiary of Harvard University), in 1897, by the famous American philosopher and psychologist William James, as the *only* question on a two-hour final exam. And, it was

answered in just *two* monosyllabic words by his best student, Gertrude Stein, who turned in her blue book,...after just *two* minutes,...writing... “*Why not?*”... It is reputed that she received the only “**A**” on the exam!

The story is undoubtedly apocryphal. But Professor James asked the right question: *Why?*... However, his *Why?* question cries out for the *What?*...*Why, what?* Which is why I started my message with a *What?* question! So,...first I will provide a brief two-minute overview of the answers to that *What?* question because they serve as the catalyst for the important *Why?* question that is at the heart of today’s message.

Despite the fact that philosophers still don’t know the answer to the question *What is there?*, the *models*, the possible answers, are clear. They range from: *there is one and only one thing*...(and thus, one and only one *kind of thing*)...which is known as Monism (Spinoza being the leading proponent)...to *there are an uncountable number of things and kinds of things, possibly even an infinite number*...which is known as Pluralism (Leibniz being the principal proponent). There are two important theories in between Monism and Pluralism, that is, in between the *only one thing* and the *possibly infinitely many things* to answer the *What is there?* question. The most famous of these is Dualism (which Descartes espoused) – the theory that *there are two and only two things and kinds of things*,...namely, *bodies and minds*. But, because they are different in kind, it raised a serious problem: How then do bodies and minds interact? This is the historical *mind/body problem*. The second of the in between theories is Idealism, which is the oldest of the theories (Plato being the first proponent). It says that it is *only ideas that are real*. That is, it is the idea of something that is real, not the thing itself. For

example, even if there were no cats left in the universe, there would still be the “idea of cat,” or, as Plato called it, the *Form of Cat*...also known as *Catness*!

So, there is a long history in Western philosophy addressing the *What is there?* question. And even though we are still not certain about the answer, the *models* are clear....Either, there are *only* things, i.e., physical things; or there are physical *and* mental things; or there are physical, mental and possibly an infinite number of other kinds of things;...or there are *only* mental things. Everyone must choose among these possibilities. Even Unitarians! But, at one level you cannot make a mistake!... Because all of the possibilities assert that there is at least something. They differ only about the number and nature of what it is. This assertion,... that there is something, whatever it is,...leads to another ontological question, one that has puzzled philosophers, theologians, and scientists for centuries. It is a question at the interface of these disciplines, and a defining problem for human thought. *It is, in my opinion, the most important question ever asked!...Why? ...That is, Why is there something rather than nothing?*

Historically, this question has been conceived as being answered if it can be explained *how things began*. This idea is a central part of Christianity, going back 4,000 years, to the *Book of Job*. It is also, of course, the opening line of *Genesis* in the Old Testament. And while it took science until the 14th century, after the discovery that the Earth was not the center of the universe, to start thinking about the origin of things, it too sought an explanation requiring a beginning, which culminated in the current 20th century theory well known to all. The predominant view of Western religion is: “The universe was created by God, but will never end,

because of the Kingdom of Heaven. The predominant view of Western science is: “The universe began by a Big Bang, but will someday end because of a “Big Crunch.”

I am going to argue that both of these views are false! And that the only viable alternative is a solution that takes us outside of both science and religion for an answer, one that requires a totally different conception of all existence! *The Unitarians are on the edge of their seats!* I will argue that by assuming a beginning model both science and religion deny a major principle, ...namely, that something cannot come from nothing,...but this denial is indefensible. Thus, we must consider the other possible explanatory models. The ones that say, “The universe never began, but has always existed,...and may or may not end.” My aim is to show that one of them is closer to the truth than the beginning models of science and religion and deserves more serious consideration. I will address the former theory first, the one that says there was no beginning but there will be an end.

No one takes seriously the view that our universe has always existed, but will someday cease to do so. It would be a strange universe indeed that has always existed, i.e., a universe that never began, but will someday end. What could that possibly mean? That the universe has existed for an infinite number of years, but has now decided to call it quits?! Let’s be clear. Anything that has *always* existed, *must* exist, and is thus *necessary*. And, things that are necessary cannot go out of existence. If they could, neither “necessary” nor “eternal” would have any meaning. This leaves only one possible alternative to the religious and scientific models for understanding and answering the question *Why is there something rather than*

nothing? This is the theory that: *The universe never began and will never end...that it is eternal and necessary.*

What is the significant difference between this model and the two beginning models of science and religion? *If the no beginning, no end model is viable, **Why is there something rather than nothing?** would still be an important question, but would require an entirely different kind of answer.* There would be no beginning to explain. The problem would shift, from trying to explain the beginning of the universe, to *explaining its necessity...i.e., the necessity of there being something.* This would be a huge “paradigm shift” as the philosopher of science Thomas Kuhn would have called it. I believe that this “open universe model” deserves more consideration than it has received. If the “no beginning, no end” model is correct, it would eliminate both the current Big Bang Theory of science and the traditional religious theory of Creation. At the same time, it would support the possibility of immortality, which should please theologians desirous of eternal life, as well as scientists worried about the end of the universe! Talk about a win, win situation! It’s at least worth thinking about. After all, science argues for choosing the simplest and boldest theory...even if the least probable...because it will be the easiest to test. So, how revolutionary is this idea,...the idea of an eternal and necessary universe?...

Well, it was first proposed by Democritus in 400 BC! Other ancient philosophers argued the same...Aristotle among them. Leibniz argued for it in the 17th century, proclaiming that this was “the best of all possible worlds,” and thus, *could not have been different*, thereby making it *necessary*. The great German philosopher, Kant, argued for the eternity and necessity of the

universe in the 18th century, but no one took him seriously. Perhaps they should have...because the accepted views of science and religion are not without serious problems...

What hath they wrought? Given time constraints, I'm going to concentrate on the scientific theory. I will forego analysis of the Theory of Creation....because...first, it is essentially the same theory as the Big Bang, at least in its initial assumption, and second, I know that all Unitarians are well steeped in religious theory! So, what about the Big Bang Theory? What does it tell us...and is it sustainable?

The core idea of the Big Bang Theory was formulated in 1931, by Lemaitre, a Belgian Catholic priest! *Go figure!* Lemaitre argued for a single atom that “exploded” to become the universe! The current version of the theory, which incorporates Lemaitre’s conjecture, posits a beginning of our universe 13.8 billion years ago. This estimate is based upon measurement of the size of the universe, which is based upon the speed of light, gravitational theory, and the red spectrum shift. However, the Big Bang theory doesn’t even answer the question *Why is there something rather than nothing?!* It doesn’t do so because it cannot get around a basic principle of science, namely, that something cannot come from nothing. If there was a Big Bang, there had to be something to go “bang!” This problem has plagued theology for centuries as well. How could there be creation *ex nihilo*, i.e., something created out of nothing? God had to have something to work with. The Big Bang theory posits that at the “moment,” just before the bang, (when there was no “moment”), i.e., until the “Singularity” as it is called, there was no light, no time,...no nothing,...*except... a mass of infinite density with no volume.* ***But that is something!*** There is no getting around it...*something cannot come from nothing.* The Big Bang

theory is thus, at best, a theory about what happened *after* the bang. And while it may well be the best theory we have for explaining what happened after, it does not and cannot explain the existence of a mass of infinite density but with no volume, nor the framework embodying all existence...

Moreover, the “singularity” element itself should not go unexamined. This was a *unique* event. Thus, it is not even a candidate for scientific explanation...by its own standards! If singular and unique, it cannot be explained scientifically because the laws of nature do not apply to singular events! This raises a very serious theoretical challenge to science as *the* only (or even *the* most important) way of knowing and explaining. But, that discussion, about the limits of science, will have to wait until next Sunday! (*I sense the excitement starting to build!*)

So, what happened after the Big Bang? In the first 3 minutes, 98% of all matter currently in our universe was created (or at least its building blocks). Within 3 minutes our universe was a million, million, million, million, miles across! *That's quite large!* Today, our universe is 90 billion trillion miles across! That's so big that *we can say it, but we cannot imagine it!* *We cannot model it!* How could the universe possibly be this big? Light wouldn't even have had time to cross it in the last 13.8 billion years! Well, as Big Bang theorists argue, the universe “just appeared,” very large in size, instantly, at “ground zero” and then “exploded” because...it was inflating,...i.e., the universe was expanding *faster* than the speed of light! Otherwise it would have collapsed upon itself near ground zero. And, it continues to expand very rapidly even today, not into nothing (because there is nothing except our universe, so the argument goes), but *creating itself* as it goes. And, while the universe is finite in size, it is at the same

time boundless! (I sense a paradox here. It is not only true that something cannot come from nothing, it is also true that something cannot expand into nothing. It wouldn't have anywhere to go! But that is also an issue for next Sunday!)

Moreover, the expansion of the universe is now *faster* than it was earlier. Not faster than originally, at the time of the “Singularity,” but faster than it was just a few billion years ago. In short, the expansion of the universe is accelerating. This means that things are getting further apart (think of the universe as an inflating balloon, you can watch the separation between any objects on the surface of the balloon as it is blown up), and this means that the gravitational force is weakening because things are moving away from each other. It also means that the expansion should be slowing down, because science also tells us that all objects in motion must come to rest, even an expanding universe itself ...because *there are no perpetual motion machines*. That would be a violation of the Laws of Thermodynamics. So, there must be something causing the acceleration and the continued rapid expansion, but also capable of explaining why it might someday end. The answer? There's a different kind of “glue” in the universe, something holding it together, but also making it expand more rapidly...*Dark matter and dark energy!*...We can't see it. We can't directly test for it. But, dark matter and dark energy *must* exist, otherwise we cannot explain what's happening now and what happened in the past, particularly at the beginning of our universe. And, this “stuff,” this “cosmic super glue,” *constitutes 97% of the mass of our universe!* In this case, “What you *don't* see, is what you get!”

But what about the other 3% of our universe? Well, that *stuff* comprises all of the galaxies in our universe, with the myriad of objects that make up those galaxies! And, despite its low “3% rating,” there’s a ton of it! On any given dark night in Door County you can see between 3 and 4 thousand stars with the naked eye, some in our Milky Way Galaxy, some not. Add a decent telescope and you can get that up to 30 to 40 thousand objects, in ten different galaxies! Even with the best scientific telescopes in the world, like the Hubble, we can only see objects in about ten thousand galaxies. (The new Webb telescope will substantially increase this capability and has already begun to produce spectacular results despite being severely damaged by an asteroid shortly after deployment.)

Astronomers estimate that there are a *trillion* galaxies in addition to the Milky Way! So, how many stars does that make all together? The estimate is that there are between 300 and 400 *billion* stars just in our Milky Way Galaxy alone! And other galaxies appear to have complementary numbers. So, there’s lots of stuff out there making up the 3% minority! And, it takes up lots of space! Consider this scale model. If just our Sun, in just our solar system, were a mere *speck of dust* in a scale model of the entire Milky Way, the *model* of the galaxy would be the size of the continental United States! Now, multiply that times one *trillion*, then multiply that by 300-400 *billion* stars, and then factor in the distances among and between galaxies! You begin to sense the enormity of this thing we call our universe. It’s as if the universe is out to prove, once and for all, that *size does matter!*

So, where will it all end...or will it? One model, the “closed” universe model, proposes an implosion, a reverse Big Bang, until our universe succumbs to the “Big Crunch,” compacting to

a mass with infinite density but no volume, just like at the Singularity...i.e., compacting to the *nothing* from which the *something* supposedly came. Another scientific model, *the beginning, but no end model* (which is the scientific version of current religious thinking), suggests an eternal expansion, but with energy and gravity dissipating to a point that our universe goes into a state of equilibrium and becomes virtually “nothing,” (but still holding a place for the Kingdom of Heaven.)

Then there is the *radical* hypothesis that proposes there will be another Big Bang, after the Big Crunch, with a whole new universe forming! Or, that there have been “parallel” universes all along. Maybe there have been many universes all along because maybe *everything* (or its components) have existed forever or at least the framework for housing it. Maybe it is true, as some cosmologists say, that: *there are no un-instantiated possible micro-states!* I.e., whatever is possible already is! (Think about that! There may be UUFDCs in all of these other universes, possibly even an infinite number! So many Brother Bob’s!) Who says the creation of universes can’t go on forever? Or, that it hasn’t gone on forever? Maybe the *no beginning, no end, eternal and necessary model* does make sense...even if each individual universe (and everything in them) exists only contingently ...which, if possible, *explaining it, i.e., explaining “contingency within necessity” would become the new most important problem for human thought!* But, as I suggested earlier, and this is, *the significant philosophical point I want to make: such theories require that we completely change the way we have to think about all existence.* It changes the problem and the solution. If the universe is eternal, an explanation of a beginning would not be necessary because there was none (or there might have been and will

be many, perhaps infinitely many). And, an explanation of an end would not be necessary because there won't be one (or, there might have been and will be many, perhaps infinitely many). There are, of course, critics of both the idea of multiple universes and the idea of an eternal and necessary universe, but I cannot explore these today. I have already taken up way too much of your precious time left in just this universe!

Why is there something rather than nothing? Is this really just a question for science and religion, a question assuming only a beginning for an answer? Or, might our universe be part of a necessary continuum, the process having always existed... and always will? Maybe Democritus was on to something back in 400 BC! I believe the view is worthy of serious consideration. ***Why is there something rather than nothing?*** is the most important question ever asked....Reflection upon it tests the ingenuity, profundity and depth of human thought. Its answer, if we ever find it, will unlock the mystery of life and of all existence.

Thank you again to the fellowship for the opportunity to speak today. Thank *you all*, for patiently listening. I look forward to the talkback...which I will begin by playing a recording of the formation of a new universe! *Surely that will bring the Unitarians out of their seats!*
