

Essay

## On "The Grand Design" Once Again

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### Abstract

In this essay, I argue that, in his book "The Grand Design", Hawking mixed up two distinct models of cosmology that try to explain the origin of the universe: (a) The no-boundary model; and (b) The popping-up model.

**Keywords:** God, The Grand Design, Hawking, cosmology, universe, hotchotch.

A few years back I have written an article entitled "Stephen Hawking's Hotchpotch' [1] in which there was some criticism of Hawking's book "The Grand Design".

1. "In The Grand Design", Hawking has really messed up things. In his earlier book "A Brief History of Time" he advocated a no-boundary model. According to this model the universe will have no beginning and no end, it would simply be. It means that the universe has never begun, it was always there. Only that it has gone through unending cycles of expansion and contraction, but it has never completely died down. When the universe had come to a zero size due to contraction, all the physical laws of the earlier universe remained intact. From there the universe had again started a new life. But this beginning cannot be said to be an absolute beginning and this beginning should not be confused with the beginning of a universe practically from nothing due to a vacuum energy fluctuation in a void. The latter beginning can be called an absolute beginning, because in this case there will be no prehistory, no prior universe that has left its seed at its demise.

"In The Grand Design", Hawking has never said that he has abandoned his earlier model. Rather he has written in one place that in no boundary model the universe will have no beginning; or, if it was having a beginning, then that beginning was governed by the laws of science and was not needed to be set in motion by some god. This generation of the universe cannot be called a spontaneous generation from nowhere, because the seed of the universe was already there. Therefore an atheist scientist who is advocating the no-boundary model cannot at the same time say that as because there is a law such as gravity, so the universe can and will create itself from nothing. A universe that would simply be cannot again pop into existence from nothing. So it is presumed that Hawking in his book "The Grand Design" has mixed up two distinct models of cosmology that try to explain the origin of the universe:

- (a) The no-boundary model; and
- (b) The popping-up model."

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2. "Perhaps the most serious objection that can be raised against the no-boundary model is this: Even it is conceded that in no-boundary model beginning of the universe will be governed by known laws of science, still one thing is sure and certain in this scenario. The beginning of any universe can never be governed by its own laws, because a universe that has not yet come into existence cannot have any laws in it. Its beginning can only be governed by physical laws left by the universe just prior to it. If what I have said here is correct, then how could Hawking apply the quantum gravitational law and Feynman's sum over histories at the beginning of our universe? So, how could he say that there would be no singularity at the beginning? How did he come to know that the physical laws left by the earlier universe just prior to ours were an exact replica of the laws of our universe?"

When the above was posted in one YouTube comment thread, an atheist posed this question to me: If I am not a physicist or more specifically a cosmologist then why do I think I am qualified to critique his papers?

I replied to him in this way: The above was taken from my article 'Stephen Hawking's Hotchpotch' in which I had severely criticized Hawking's book 'The Grand Design'. Scientist Victor J Stenger has also written a review of this book in which he has praised the book highly. But when I have sent my article to him in an e-mail, in reply e-mail he has not said a single word in support of Hawking. Rather he has tried to draw my attention to the no-boundary solution that he has offered in his book 'The Comprehensible Cosmos'. Why? This is because my criticism of Hawking's book has not appeared to him as unjust. So, here the question is not whether I am a scientist or a cosmologist. The question is whether my criticism of Hawking's book was just or unjust. If it were unjust, then Victor Stenger being a scientist could have pointed it out to me. But he has done no such thing, which means he also thought my criticism of Hawking's book was not unjust. If it were unjust, then only he could have raised the question as to why not being a scientist or a cosmologist I had gone to criticize his book, because my unjust criticism had exposed that I was not qualified to do that. As no such thing has happened, so the question does not arise as to whether I am a scientist or a cosmologist.

When an atheist criticizes a philosopher's doctrine, then should anyone ask him this question that not being a philosopher why he has gone to criticize a philosopher?

## Reference

1. <https://scigod.com/index.php/sgj/article/view/128/149>