



It's OK Not to Know Everything

Marcelo Gleiser

MARCELO GLEISER *is a professor of physics and astronomy at Dartmouth College. He is the author of The Dancing Universe: From Creation Myths to the Big Bang.*

There have been many times when I asked myself whether we scientists, especially those seeking to answer ultimate kinds of questions such as the origin of the universe, are not beating the wrong drum. By trying to answer such questions as the origin of everything, we assume we can. We plow ahead, proposing tentative models that join general relativity and quantum mechanics where the universe pops out of nothing, no energy required: All is due to a random quantum fluctuation. To this, we add the randomness of fundamental constants, saying that their values are due to accident; other universes may well have other values of the charge and mass of the electron and thus completely different properties. So our universe becomes this very special place where things conspire to produce galaxies, stars, planets, and life.

What if all this is bogus? What if we look at science as a narrative, a description of the world that has limitations based on its structure? The constants of nature are the letters of the alpha-

bet, the laws of nature the grammar rules, and we build these descriptions through the guiding hand of the so-called scientific method. Period. To say things are this way because otherwise we wouldn't be here to ask the questions is to miss the point altogether. Things are this way because this is the story we humans tell based on the way we see the world and explain it.

If we take this view to the extreme, it means that we will never be able to answer the question of the origin of the universe, since it implicitly assumes that science can explain itself. We can build any cool and creative models we want, using any marriage of quantum mechanics and relativity, but we still won't understand why these laws are the laws and not others. In a sense, this means that our science is our science and not something universally true, as many believe. This is not bad at all, given what we can do with it, but it does place limits on knowledge. Which may also not be a bad thing. It's OK not to know everything. It doesn't make science weaker. Only more human.

What Is Your Dangerous Idea?



TODAY'S LEADING THINKERS
ON THE UNTHINKABLE

Edited by John Brockman

*With an Introduction by Steven Pinker
and an Afterword by Richard Dawkins*

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