



The relationship of matter to anti-matter has scientists wondering how the universe could exist after the Big Bang. Those of us who were fortunate enough to be taught by a competent science teacher have certainly learned this most fundamental of all rules: theory does not equal fact. While a scientific theory may indeed eventually be proven to be fact, as a theory it remains a scientist's "best guess" given the available data and knowledge at the time. Scientists studying the properties of matter and anti-matter have recently run into a bit of a conundrum — if the Big Bang theory for the origin of the universe is accurate, then the universe should not be here. The Independent reports:

The most elite scientists in the world are still struggling to find why exactly our universe didn't destroy itself as soon as it came into existence. That's what science says should have happened — but it clearly hasn't, since you're here reading this, as far as we know. At the beginning of the universe, according to the standard model, there were equal amounts of matter and anti-matter. The trouble with that is that they would each have annihilated each other, leaving none of the matter that surrounds us today.

Researchers have been frantically looking for some difference between matter and anti-matter that could explain why the universe is still around. But they have tried a range of different possibilities — that they have different mass, electric charge, or something else — but have found no difference. This is indeed a problem, yet the Big Bang theory's larger problem has always been the lack of a verifiable explanation for *why* it all happened in the first place. What precipitated the explosion of the universe into being some 13.8 billion years ago, give or take a few years? This then gives rise to questions about the concept of time itself, and life, and self-aware sentient beings, which then give rise to still more questions about meaning and purpose, which naturally leads to philosophical inquiry, which then leads to questions about God. The fact is, science doesn't hold all the answers, and it's rarely "settled."