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Big Bang Theory - The Premise

by Greg Outlaw

*The Big Bang theory is an effort to explain what happened at the very beginning of our universe. Discoveries in astronomy and physics have shown beyond a reasonable doubt that our universe did in fact have a beginning. Prior to that moment there was nothing;*

Greg, what do you base that last claim on? You couldn't have gotten that from science because scientists admit there is no way, at this time, to know whether or not anything existed prior to the Big Bang.

*during and after that moment there was something: our universe. The big bang theory is an effort to explain what happened during and after that moment.*

*According to the standard theory, our universe sprang into existence as "singularity" around 13.7 billion years ago.*

Greg, not quite. Our visible Universe expanded into existence "from" a singularity - not "as" a singularity.

*What is a "singularity" and where does it come from? Well, to be honest, we don't know for sure. Singularities are zones which defy our current understanding of physics. They are thought to exist at the core of "black holes."*

*Black holes are areas of intense gravitational pressure. The pressure is thought to be so intense that finite matter is actually squished into infinite density (a mathematical concept which truly boggles the mind). These zones of infinite density are called "singularities." Our universe is thought to have begun as an infinitesimally small, infinitely hot, infinitely dense, something - a singularity. Where did it come from? We don't know. Why did it appear? We don't know.*

*After its initial appearance, it apparently inflated (the "Big Bang"), expanded and cooled, going from very, very small and very, very hot, to the size and temperature of our current universe. It continues to expand and cool to this day and we are inside of it: incredible creatures living on a unique planet, circling a beautiful star clustered together with several hundred billion other stars in a galaxy soaring through the cosmos, all of which is inside of an expanding universe that began as an infinitesimal singularity which appeared out of nowhere for reasons unknown. This is the Big Bang theory.*

*There are many misconceptions surrounding the Big Bang theory. For example, we tend to imagine a giant explosion. Experts however say that there was no explosion; there was (and continues to be) an expansion. Rather than imagining a balloon popping and releasing its contents, imagine a balloon expanding: an infinitesimally small balloon expanding to the size of our current universe.*

*Another misconception is that we tend to image the singularity as a little fireball appearing somewhere in space. According to the many experts however, space didn't exist prior to the Big Bang. Back in the late '60s and early '70s, when men first walked upon the moon, "three British astrophysicists, Steven Hawking, George Ellis, and Roger Penrose turned their attention to the Theory of Relativity and its implications regarding our notions of time. In 1968 and 1970, they published papers in which they extended Einstein's Theory of General Relativity to include measurements of time and space. According to their calculations, time and space had a finite beginning that corresponded to the origin of matter and energy." The singularity didn't appear in space; rather, space began inside of the singularity. Prior to the singularity, nothing existed, not space, time, matter, or energy - nothing.*

Greg, that last statement was pure speculation. Scientists have no way yet, of knowing anything about what preceded our visible Universe.

*So where and in what did the singularity appear if not in space? We don't know. We don't know where it came from, why it's here, or even where it is. All we really know is that we are inside of it and at one time it didn't exist and neither did we.*

*What are the major evidences which support the Big Bang theory?*

*First of all, we are reasonably certain that the universe had a beginning.*

*Second, galaxies appear to be moving away from us at speeds proportional to their distance. This is called "Hubble's Law," named after Edwin Hubble (1889-1953) who discovered this phenomenon in 1929. This observation supports the expansion of the universe and suggests that the universe was once compacted.*

*Third, if the universe was initially very, very hot as the Big Bang suggests, we should be able to find some remnant of this heat. In 1965, Radio astronomers Arno Penzias and Robert Wilson discovered a 2.725 degree Kelvin (-454.765 degree Fahrenheit, -270.425 degree Celsius) Cosmic Microwave Background radiation which pervades the observable universe. This is thought to be the remnant which scientists were looking for. Penzias and Wilson shared in the 1978 Nobel Prize for Physics for their discovery.*

*Finally, the abundance of the "light elements" Hydrogen and Helium found in the observable universe are thought to support the Big Bang model of origins.*

*Is the standard Big Bang theory the only model consistent with these evidences? No, it's just the most popular one. Internationally renowned Astrophysicist George F. R. Ellis explains: "People need to be aware that there is a range of models that could explain the observations….For instance, I can construct you a spherically symmetrical universe with Earth at its center, and you cannot disprove it based on observations….*

Greg, that's going to be kind of difficult to do since the Earth isn't even the center ... of its own solar system.

Googling Ellis brought up a host a hits that exposed Ellis as nothing more than another Creationist apologist trying to bend science to fit into his religious dogma.

*You can only exclude it on philosophical grounds.*

Greg, scientists have excluded Ellis' nonsense on all grounds. They didn't even need philosophy.

*In my view there is absolutely nothing wrong in that. What I want to bring into the open is the fact that we are using philosophical criteria in choosing our models. A lot of cosmology tries to hide that."*

Greg, that is what you might expect a loser to say. It's not Ellis' wacky science that isn't accepted - it's because there's a giant conspiracy against ... lunatics.

*In 2003, Physicist Robert Gentry proposed an attractive alternative to the standard theory,*

Greg, Gentry? You mean that guy who lost all credibility when he tried to pass metamorphic rocks off as primordial rocks and then claim they existed from the beginning? That Robert Gentry?

*an alternative which also accounts for the evidences listed above. Dr. Gentry claims that the standard Big Bang model is founded upon a faulty paradigm (the Friedmann-lemaitre expanding-spacetime paradigm) which he claims is inconsistent with the empirical data.*

Greg, let's do a quick comparison here: The vast majority of the world's leading cosmologists vs. a creationist who has already been exposed for lying about his radio halo rocks.

Gee, that's really a tough call Greg: can I phone a friend?

*He chooses instead to base his model on Einstein's static-spacetime paradigm which he claims is the "genuine cosmic Rosetta." Gentry has published several papers outlining what he considers to be serious flaws in the standard Big Bang model. Other high-profile dissenters include Nobel laureate Dr. Hannes Alfvén, Professor Geoffrey Burbidge, Dr. Halton Arp, and the renowned British astronomer Sir Fred Hoyle, who is accredited with first coining the term "the Big Bang" during a BBC radio broadcast in 1950.*

Greg, that's a pretty impressive list ... of 4 guys.

Believe me, you don't want to know how long, and impressive, the list is ... of those who disagree.

*Big Bang Theory - What About God?*

*Any discussion of the Big Bang theory would be incomplete without asking the question, what about God?*

Greg, then nearly all scientific discussions are incomplete because, outside of Sunday School, I never hear God mentioned when discussing cosmology. And while we're on the subject, I never hear Him mentioned when discussing or reading about any scientific field.

*This is because cosmogony (the study of the origin of the universe) is an area where science and theology meet.*

Greg, I challenge you to produce any Creationist literature that discusses the role of Allah or Brahman, other than to ridicule them as you do science.

*Creation was a supernatural event.*

Greg, and your proof for that assertion is?

*That is, it took place outside of the natural realm.*

Greg, then how could you possibly know anything about it?

Greg, it's time you were forced out into the open: because your Bible told you so. And the Koran told the Muslims so. And the Vedas told the Hindus so. And ....

*This fact begs the question: is there anything else which exists outside of the natural realm?*

Greg, before you start worrying about that, you had better go back and first try to prove that anything exists outside the natural realm, because so far ... it's never been done.

*Specifically, is there a master Architect out there?*

Greg, if there is ... He is pretty shitty at what He does.

*We know that this universe had a beginning. Was God the "First Cause"? We won't attempt to answer that question in this short article. We just ask the question: Does God Exist?*

Greg, you can make an article as long as you like, and you still won't be able to answer that question because it is unfalsifiable.

But the nonsense in your Bible, Gregg ... has been falsified.

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THE SCIENCE SEGMENT

Bees are capable of learning feats with a tasty prize in sight

They may have tiny brains, but bumblebees are capable of some remarkable learning feats, especially when they might get a tasty reward. Researchers found bees capable of learning to solve increasingly complex problems.

The researchers presented bees with a series of artificial flowers that required ever-more challenging strategies, such as moving objects aside or upwards, to gain a sugar syrup reward.

When inexperienced bees encountered the most complex flower first, they were unable to access the syrup reward and stopped trying. Bees allowed to progress through increasingly complex flowers were able to navigate the most difficult ones.

The study was an example of scaffold learning, a concept normally restricted to human psychology in which learners move through increasingly complex steps.

Researchers also found that bees learned by watching and communicating with other bees, a process called social learning.

They made artificial flowers which required the bees to walk on the underside of a disk to get a sugar syrup reward. These experienced bees foraged on the artificial flowers for several days until they became accustomed to feeding at them.

To see whether other bees could learn from the experienced foragers, researchers confined inexperienced bees in a mesh container near the artificial flowers where they could observe the experienced bees. When the naïve bees were allowed to forage on the artificial flowers, they took just 70 seconds to get the reward.

Control bees that had not observed the experienced bees could not access the syrup.

In a final test, researchers placed experienced bees in a hive with naive bees. When the naive bees were allowed to forage on the artificial flowers, they gained the syrup in just 3.5 minutes.

Behavioral scientists usually assume that observation and imitation are at the heart of social learning, but social insects such as bees can also transmit information through touch, vibration and smell. Researchers said the communication method used by the bees is still a mystery. Clearly some in-hive communication took place.

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FAMOUS QUOTES

STEPHEN COLBERT (May 13, 1964) 50 years old

He is an American political satirist, writer, comedian, television host, and actor. Colbert's work as a correspondent on Comedy Central's news-parody series, The Daily Show, first introduced him to a wide audience.

In 2005, he left The Daily Show to host a spin-off series, The Colbert Report, a satirical news show in which Colbert portrays a caricatured version of conservative political pundits. Following The Daily Show's news-parody concept, The Colbert Report is a parody of personality-driven political opinion shows such as The O'Reilly Factor. Since its debut, the series has established itself as one of Comedy Central's highest-rated series, earning Colbert three Emmy Award nominations and an invitation to perform as featured entertainer at the White House Correspondents' Association Dinner in 2006.

Colbert was named one of Time's 100 most influential people in 2006 and 2012. His book I Am America (And So Can You!) was number one on The New York Times Best Seller list. Colbert has been chosen to succeed David Letterman as the host of the Late Show on CBS after Letterman retires in 2015.

"Remember, Jesus would rather constantly shame gays

than let an orphan have a family."