

IS THE BIG BANG THEORY CREDIBLE?

A. Big Bang Theory: A Failure from the Beginning

Both biblically and scientifically, there is no real evidence for the Big Bang. Biblically, God created the universe by his spoken word (Ps. 33:6). Genesis chapter 1 repeats the phrase "And God said" a total of nine times (Gen. 1:3, 6, 9, 11, 14, 20, 24, 26, 29). Elsewhere in the Bible, **God carries out His governance of the universe by immediate implementation of His spoken word.** For instance, in Psalm 29, the "voice of the Lord" speaks seven times to govern the events of the Flood (verses 3, 4 twice, 5, 7, 8, 9).

In contrast, the origin of the universe via the Big Bang is supposed to have begun with an expansion of space and matter that is still happening. A slow and gradual process of development is supposed to have followed the Big Bang, but the word of God accomplished creation rapidly, not over eons.

Thus the Big Bang and biblical creation are opposites in their chronologies and in their durations. They are not compatible. Biblical creation was short, rapid and is no longer happening. The Big Bang and cosmic evolution were supposedly long, slow and supposedly still happen.

Scientifically, the *red shift* is commonly supposed to be one of the strongest confirmations of the Big Bang. **The red shift is a real phenomenon.** It can be observed by an astronomical instrument called a spectroscope, in which a prism splits light from a star into a spectrum of colors. Such a spectrum is completely normal except that, for most stars, the spectrum is displaced or shifted toward longer redder wavelengths.

The red shift is often claimed to be a so-called "Doppler effect" or "Doppler shift" due to the recession of stars and galaxies from us, similar to the lengthening of sound waves from receding sirens or train whistles. With sound we notice the Doppler effect because the pitch becomes lower. With star light, the motion of stars and galaxies from us is supposed to result in the color change in stellar spectra called the red shift. The presumed recession of stars and galaxies is in turn supposed to be caused by the expansion of the universe.

Thus the red shift has been used to show that the universe is expanding, and the expansion is in turn supposed to have been caused by the Big Bang.

So far in this discussion there has been only one observable phenomenon, the red shift. Other unobservable concepts have been "piggy-backed" onto the red shift: (1) the Doppler shift for starlight; (2) the recession of stars and galaxies; (3) the expansion of the universe; and (4) the Big Bang.

There is nothing anti-biblical about concepts 1, 2, and 3 (concept #4, the Big Bang, is not compatible with biblical creation as already mentioned), but biblical creation does not require them either. **But the Big Bang believer must have the Doppler shift, stellar recession, and universal expansion, because without them the Big Bang simply can't be true.**

Since the evolutionary establishment today believes in the Big Bang, it must insist that the Doppler shift of starlight is the *only* significant explanation for the red shift. But the red shift has numerous possible causes.¹ Thus the red shift cannot

be taken as confirmation of any one of them, including the Big Bang.

It is common to associate the red shift with the Doppler shift of starlight, stellar recession, and the expanding universe, as if these concepts were all equally verified and genuinely observable. This association is so strong in the minds of many scientists that the Big Bang is nowadays sometimes claimed as proof that the universe is expanding. **The reality is that only the red shift is observable.**

I. False Theories Can Make True Predictions

The earth is bathed by microwave radiation that seems to fill all of outer space. This radiation is millions of times weaker than the radiation from a microwave oven. It is known variously as the "microwave background radiation," the "cosmic microwave background," or "cosmic background radiation" (CBR). It is claimed that the Big Bang was verified by the discovery of the CBR in 1965, which Gamow and colleagues had predicted from Big Bang theory in the 1940s.

But a well-attested fact of logic is that that **while a true theory will always make true predictions, true predictions can also come from a false theory:**

"A true prediction may be derived from a false hypothesis as well as from a true one. Thus true predictions do not constitute proof of the truth of a hypothesis. ... *A true hypothesis can never give rise to a false conclusion.* In other words, predictions derived from a true hypothesis should never lead to contradictions. ... We can never *prove* that a hypothesis is true. **For, while a true hypothesis always gives rise to true predictions, so also may a false hypothesis.** The importance of this last fact cannot be overemphasized ...

"Many false hypotheses have been held by scientists and laymen alike, simply because accurate predictions could be made from these hypotheses despite their falsity" [italics in original; bolding added].²

II. A Failed Prediction: Temperature of the CBR

Since a false theory can make true predictions, the Big Bang prediction that the CBR should exist never did constitute proof of the Big Bang. But the situation is even worse than this, because **the Big Bang prediction for the temperature of the CBR was many times too large:**

"The big bang made no quantitative prediction that the 'background' radiation would have a temperature of 3 degrees Kelvin (in fact its initial prediction was 30 degrees Kelvin)."³ So the "prediction" was not really true at all. **One of the first predictions arising from Big Bang theory, and possibly the most famous, was a failure.**

Since the 1940s, cosmic evolutionary theory built on the alleged Big Bang has made a long series of additional false predictions involving galactic and cluster structure, galaxy distributions, and composition of the interstellar medium (ISM) and the intergalactic medium (IGM).

Big Bang theory actually gives no insight on how the structure of the universe was formed. Trying to make Gamow's microwave background "prediction" a success for the Big Bang is like believing airline crashes are good thing because not every passenger dies in one.

III. A Non-Prediction: Cosmic Hydrogen/Helium Abundance

Another one of Gamow's early predictions based on Big Bang theory involved the ratio of hydrogen (H) to helium (He) in the universe. The story goes that Gamow's Big Bang theory led to a correct prediction of the H/He ratio being about 3 to 1. But this "prediction" actually provided no confirmation at all.

As has been pointed out elsewhere, "Phenomena do not uniquely determine the theory. There may be several theories that give reasonable agreement with experiment [but only one, and maybe none, is correct] ... Such theories may be formulated in terms of concepts. ... Because these concepts are to a certain degree 'free creations of the human mind' we do, to some extent, impose the creations of our minds onto the workings of nature. We make experiments to fit our descriptions of nature as often as the other way around."⁴

In other words, the Big Bang theory was made to fit the observed 3-to-1 H/He ratio. It did not predict the ratio.

IV. The "Prediction" that Was Not a Prediction

We speak wrongly when we claim that any theory has been "proved" by one of its predictions. For the Big Bang theory, however, the situation is even worse than this. **The H/He ratio was well known before Gamow ever conceived the Big Bang theory, and Big Bang theory cannot explain why this ratio has the value it does.** Affirmations that cosmic H/He abundances somehow confirm the Big Bang must be taken as false, and statements such as the following should be seen more as public relations statements of Big Bang promoters, rather than as real science:

"The other observational cornerstone of the Big Bang model [besides the 3 K background radiation, which as we have seen, does not support the Big Bang model] is its prediction that the Universe should contain particular abundances of the lightest elements: hydrogen, deuterium, and helium ... Detailed calculations predicted that the present Universe should contain about 75% of its mass in the form of hydrogen and 25% as helium-4 with about one part in a million ending up in the form of all the other elements. ... These predictions have been strikingly confirmed ... witnessing ... to the essential accuracy of our cosmological model."⁵

Aside from the fact that even a false theory can make true predictions, the best that can be said for this statement is that it is simply not true, since the alleged "prediction" of Big Bang theory to which this statement alludes was not a prediction at all.

As noted above, the abundances of the light elements were already well known in the 1940s when Gamow and colleagues made this famous "prediction." **Thus their calculations were not a prediction, but merely an adjustment of the Big Bang model to previously known facts.**⁶

It is difficult to understand how this retrodictive model-fitting could have been so widely confused with a "prediction" for so many decades. Maybe the writers of such confusing statements are themselves deceived!

V. Conclusions

The two most famous Big Bang "predictions" about the CBR and the H/He ratio do not confirm the Big Bang.

After more than half a century, the predictive success of the Big Bang model is indistinguishable from zero. If science were the objective human activity it is so often claimed to be, the Big Bang model would have been discarded long ago.

B. Rescuing the Big Bang:

The "Non-falsifiability" of Evolutionary Faith

Any human concept about the natural world has the possibility of being shown to be false, or "falsified," by experiments or observations. That is, **scientific concepts are "falsifiable."** Evolutionists recognize that evolutionism as a scientific concept should be falsifiable. Indeed, evolutionists typically claim that because evolution should be falsifiable, it must be "science," not religion. Sometimes the additional claim is made that if ever evolution were falsified, it would be given up.

I. Faith in Evolution Is Non-Falsifiable

But evolution has been falsified many times, yet it has not been given up. Why is this? **The reason is that evolution is really a kind of faith in the minds of its believers, since faith, unlike scientific concepts, cannot be falsified by scientific experiments.** Thus when claiming that evolution is falsifiable, its advocates speak of it as a scientific concept, but when faced with evidence contradicting it, its advocates treat it as one would a religious faith, even while continuing to maintain that it is only science and not religion.⁷

Like evolution, creation is regarded by its advocates as both a scientific concept and as a faith. However, creationists typically are more forthcoming about the religious aspect of creation, for the creationist (especially the biblical creationist) understands that science is not really the basis for reality; faith is. Biblical revelation -- including biblical information on the creation and the Flood -- is not falsifiable. On the other hand, human scientific concepts arising from a faith in creation are falsifiable. Likewise, scientific claims stemming from evolution are falsifiable, but evolution itself is regarded by its advocates as a faith that cannot be challenged.

There is no shame in admitting that one's religious views inform one's science. Nonetheless, though informed by one's religion, science is not itself a religion. The basic difference between science and religion is that science is to be based on observation, whereas religion is based on faith, whether the faith be in natural selection or another evolutionary mechanism, in a pagan god, or in the Creator of the Bible.

Because evolutionary faith strives mightily to appear scientific when it is not, research done to "prove" evolution often takes on a religious aura. In such cases, no matter what the evidence against a certain evolutionary tenet, evolution continues to be believed. To deal with contrary evidence, the

evolutionary establishment must construct ad hoc hypotheses that appear to "neutralize" the evidence.

In such an environment, **scientific theorizing ("modeling") can reach a point that what we are seeing is not science being done, but an (evolutionary) faith being rationalized.** With every apparent "success" at rationalization (and there have been many), there is increased confidence on the part of the world system that evolution is really true and that the universe really has been evolving for a very long time. In short, we are witnessing a cultural "hardening of the heart" like that which happened to pharaoh in Egypt during Moses' time.

II. Why Falsification of the Big Bang Was Halted

A highly publicized example of "success" in confirming evolution was the salvation of the Big Bang theory in 1992 from what seemed at the time to be an almost certain oblivion. In the late 1980s and early 1990s, articles objecting to the Big Bang proliferated.

Finally books were written and marketed by mainline publishers calling for some other theory of cosmic evolution to displace the Big Bang.⁸ Biblical creationists were not surprised at this development, since the Big Bang is not divine creation, and as an evolutionary concept could be judged as false from the Bible itself. **In 1965, the CBR was perceived as the strongest support for the Big Bang, but by 1992, CBR had turned into the Big Bang's greatest threat.**

Before 1992 the CBR was acknowledged to have the same strength from all directions in the sky (i.e., it is "isotropic"). Big Bang theorists had long believed that the CBR was radiation remaining from the Big Bang. If this were true, however, the isotropic sameness of the CBR everywhere would mean that there was no sign that energy and matter began to form "clumps" (heterogeneities) after the Big Bang that could have evolved into stars and galaxies. In other words, **evolutionists viewing the CBR as a picture of the early cosmos could detect no heterogeneities to "explain" the present structure.**

This problem was only one of a long list of Big Bang difficulties that had been building for decades. A partial list of other problems related directly or indirectly to the Big Bang included:⁹

1. wrong ages for stars in clusters
2. wrong compositions for stars in clusters
3. wrong motions of stars in clusters
4. instability of star clusters
5. wrong number of Population I and II stars
6. absence of Population III stars
7. wrong number of Type I and II supernovas
8. wrong ages for stars in multiple systems
9. wrong composition for stars in multiple systems
10. instability of multiple star systems
11. wrong incidence of black holes
12. wrong incidence of brown dwarfs
13. complete absence of confirmed planetary systems
14. wrong abundances of elements in the cosmos

15. wrong distribution of stars in the heavens
16. wrong distribution of galaxies in the heavens
17. wrong distribution of galaxy clusters in the heavens
18. persistence of spiral galaxies
19. absence of any evolutionary pathway between galaxy types
20. instability of galaxies
21. instability of galaxy clusters
22. quasar red shifts
23. quasar distribution
24. quantization of quasar distances from the earth
25. absence of a companion star for the sun
26. unusual stability of the sun¹⁰

These difficulties remain unresolved to this day.

Nonetheless, with absolutely no other remotely viable theory for cosmic evolution in sight, cosmic evolutionists could not allow the Big Bang to be falsified. To do so would have been tantamount to admitting that cosmic evolution might not be real, and even worse, that the cosmos might have been created by a Creator to Whom we are accountable. The Big Bang theory had to be rescued.

III. How the Big Bang Was Rescued: Manipulating Computer Software

It is most instructive to observe the manner in which the CBR crisis was "resolved." The CBR is also called the "3 K background," since it resembles the radiation produced by an object three degrees above absolute zero. The 3 K background data were assembled and computer processed to bring out the fluctuations which Big Bang theorists believed must be present. The desired fluctuations were accordingly "found," and NASA scientists appeared on nation-wide television to announce that the Big Bang was no longer in trouble.¹¹ Since then, most anti-Big Bang articles and books have quietly dropped out of sight, and the Big Bang is assumed to have been "verified."

How was such a "verification" possible? **The 3 K data were processed in such a way that minuscule variations due to measurement uncertainties and external microwave sources appeared to be real.** *Scientific American* acknowledged that, "Much to the embarrassment of big bang boosters, increasingly sensitive studies of the microwave background continued to show a completely uniform glow of radiation.

"Theorists obligingly adjusted their models to accommodate ever smaller initial density fluctuations. ... COBE's [the Cosmic Background Explorer satellite] precision instruments seem to have come to the rescue. The detected fluctuations [are] near the limit of COBE's sensitivity."¹² In more recent years astronomer John D. Fix has also commented on how marginal the supposed "fluctuations" really are: "The fluctuations are just barely great enough to be consistent with the observed clustering of matter after the epoch of recombinations."¹³

Scientific American cited the COBE team leader as claiming that the fluctuations are "real," but then revealed, "In this case, 'real' is a somewhat blurry term. COBE's map of the

microwave sky is dominated by instrument noise; roughly two-thirds of the data ... originated in COBE or in unaccounted-for nearby sources and not in the infant universe. ... The reason for the ambiguity lies in the Herculean task of accounting for every source of microwave emission other than the cosmic background."¹⁴ **In other words, the minute fluctuations in the CBR were due to ordinary microwave sources such as stars and galaxies, and had nothing to do with the emergence of galaxies after the Big Bang.**

Nevertheless, after computer programs averaged out the microwave contribution from galaxies and smaller structures, the remaining fluctuations were assumed to be evidence of the Big Bang. Such an assumption is tantamount to presuming that we know all the sources contributing to the 3 K background, when this is simply not the case.

By endlessly repeating that COBE saw fluctuations in the microwave background, and by invoking fanciful metaphors (e.g., dubbing the supposed fluctuations the "embers of the Big Bang"), many have been convinced that though the Big Bang was on shaky ground a decade ago, it is robust now. Thus the evolutionary establishment overcame contrary evidence to evolution by a combination of doubtful science and public relations tactics.

IV. Conclusions

More recent computer software manipulations have revealed vanishingly small fluctuations in the CBR, and newer satellite data have shown that the fluctuations are so small as to be consistent with the "old" version of the isotropic CBR, aside from real inhomogeneities due to stellar microwave sources. Thus CBR inhomogeneities give vanishingly small support to Big Bang advocates, who now admit that the fluctuations are so small that they are no evidence for the Big Bang after all.¹⁵

Despite these developments, the Big Bang continues to be touted as dogmatically true, yet without anything going for it other than strong belief, the Big Bang has become an article of evolutionary faith, an "evidence of things not seen" (Hebrews 11:1). Since the Big Bang is increasingly believed by faith alone, it will not be acknowledged to have been falsified, at least not until some more "sophisticated" model for cosmic evolution appears on the horizon.

The most tragic development in the rescue of the Big Bang, however, has involved the many professing Christians who have aggressively enticed the unwary to ride the Big Bang bandwagon. These Christians are either ignorant of, or choose to overlook, the realities of physical science. What will these Christians do when Big Bang theory is given up by the world system as bankrupt?

Even more sobering is the possibility that the Big Bang might be a major component of an emerging end-time cosmic evolution paradigm completely displacing biblical creation. The Big Bang would then be one of the lies helping to make way for the Big Lie – the claim of Anti-Christ that the God of the Bible is not really God.¹⁶

Rather than forcing the Bible to fit the theories of fallen man, these Christians would do better to read the Bible at face value as non-evolutionary revelation.

Notes

1 Other possible explanations for the red shift include:

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| 1. starlight refraction interstellar gas | 4. transverse Doppler shift |
| 2. starlight refraction by intergalactic gas | 5. spectral non-invariance |
| 3. rotation of the universe | 6. speed of light decrease |

There is evidence that the Doppler shift of starlight is in fact *not* the best explanation for the red shift on a cosmic scale, because there are signs that the universe is not really expanding at all (see J.F. Henry, "What Does the Red Shift Really Mean?," <creationconcepts.org>).

2 Jeffrey W. Baker and Garland E. Allen, *The Study of Biology*, Addison-Wesley, 1967, pp. 29, 31.

3 Tom van Flandern, "Did the Universe Have a Beginning?," *Meta Research Bulletin*, Vol. 3 no. 3, September 15, 1994, p. 33. See also J.F. Henry, "The Elements of the Universe Point to Creation: Introduction to a Critique of Nucleosynthesis Theory," *Journal of Creation*, Vol. 20 no. 2, June-September 2006, p. 56.

4 Jeremy Bernstein, *Einstein*, Penguin, 1973, pp. 19-20.

5 John D. Barrow and Frank J. Tipler, *The Anthropic Cosmological Principle*, Oxford, 1986, pp. 368-369. 6 Henry, op. cit., pp. 55-56.

7 The history of why this is so extends back into the 1600s with the founding of the Royal Society of London, the world's first, and for a long time the most prestigious, scientific society. See J.F. Henry, "The Rise of the New Scientific Priesthood," <creationconcepts.org>.

8 Eric J. Lerner, *The Big Bang Never Happened*, Times Books, 1990, is an example.

9 William C. Mitchell, *Bye Bye Big Bang, Hello Reality*, Cosmic Sense Books, 2002, pp. 51-230; James P. Hogan, *Kicking the Sacred Cow: Questioning the Unquestionable and Thinking the Impremissible*, Baen, 2004, pp. 69-78.

10 J.F. Henry, "The Sun Is Not an Average Star," *Technical Journal*, Vol. 17 no. 3, November-February 2003, pp. 35-42.

11 The major networks broadcast documentaries announcing the "rehabilitation" of the Big Bang in April, 1992.

12 Corey S. Powell, "The Golden Age of Cosmology," *Scientific American*, Vol. 267 no. 7, July 1992, p. 18.

13 John D. Fix, *Astronomy*, WCB/McGraw-Hill, 1999, p. 615.

14 Powell, op. cit., p. 10.

15 Henry, 2006, op. cit., p. 57.

16 An interesting parallel to the emergence of the Big Bang as a possible end-time paradigm is the shift that occurred in the conventionally accepted age of the earth from 1830 to 1965. Over this 130 year interval, the earth's age grew from about 6000 years to 4.56 billion years. However, since 1965, the 4.5 billion year age has not been revised in any significant way:

"... [T]hough at one time the earth's evolutionary age was predicted by some to be almost indefinitely inflatable, it settled at around 4.5 billion years. This completed the chronological paradigm shift initiated primarily by Charles Lyell ... in the 1830s" (J.F. Henry, "An Old Age of the Earth Is the Heart of Evolution," *Creation Research Society Quarterly*, Vol. 40 no. 3, December 2003, p. 167).

The constancy of the 4.5 billion year age since 1965 suggests that the biblical paradigm is being slowly displaced by elements of an increasingly stable and dogmatic evolutionary paradigm which may last into the end times.

The conventional age of the universe has fluctuated between about 10 and 20 billion years since 1965. If the scenario of "end-time paradigm stabilization" is correct, then one may expect the age of the cosmos to settle eventually at some value greater than 4.56 billion years. Based on trends of recent decades, the new paradigm value will probably be greater than 10 billion years.