

STRANGE STRINGS

by Henry M. Morris*

I was recently reminded of an unusual article¹ which appeared many years ago in a leading science journal. The article had the fascinating sub-title, "Prius Dementat," a Latin phrase meaning "They First Make Mad." This was essentially a shortened form of an old proverb: "Whom the gods seek to destroy, they first make mad."

The content of the article was a scathing critique of the nation's many colleges of education that were then training teachers for the public schools. The author of the article had become "fed up" with the emphasis of "professional educators" on pedagogical methods rather than the substantive material which most university professors considered essential in true liberal arts education.

What reminded me of that particular article, however, was a recent paper² on the "string theory" of many modern physicists, written by one of the founders and leaders of that concept, Dr. Leonard Susskind, Professor of Physics at Stanford University. In his exposition of current developments in string theory, he made the incidental comment: "Although this phantasmagoric image seems like something out of the mind of a madman, it is hard to see how it could be wrong."³

Since I am definitely not an authority on string theory, it is hard for me to see

how he can be so sure that it could not be wrong when he also acknowledges that: "To say all of this rigorously follows from the precise mathematics of string theory is not justified at the present time,"⁴ and then further admits that: "Direct observational confirmation . . . is probably not possible."⁵

Actually, in context, he was not expounding string theory in general, but drawing some remarkable conclusions therefrom. According to Susskind:

String theory is the most ambitious attempt of theoretical physicists to explain the laws of nature. Based on the idea that elementary particles have an extended structure that resembles tiny loops of string, it has the potential to unify all the forces in nature, including the elusive quantum theory of gravity.⁶

No one has seen these elementary particles nor these tiny loops of string, for they are much too small. They appear only in the mathematical manipulations generated by string-theory physicists.

Probably the most significant distinctive of string theory is that it does not operate in the real universe of space-time, with three dimensions of space (length, width, depth) and one of time. Susskind explains: "Depending on one's viewpoint it either requires nine or ten dimensions

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of space, and one of time.”⁷ The fact that we cannot see these extra six or seven space dimensions is “explained” by the assumption that they are far smaller even than those elementary particles also postulated by modern physicists. Dr. Susskind says that these tiny loops of string somehow function in rolled-up, six-dimensional shapes called Calabi-Yau spaces, of which there are presumably many millions of distinct kinds from which to choose.

But then there are also many other variables involved in this process, which is called “compactification.” Each such space is specified by hundreds of “moduli,” as well as “branes” and “fluxes” and “vacua.” “All in all,” says Susskind, “. . . a generic compactification requires several hundred variables to fix it. . . . They may vary either with time or with location in ordinary space.”⁸

But before we get lost in these hundreds of variables, it would be well to take an overview of the conclusion to which the author is trying to lead us in all this. He had become disturbed by what has come to be known as the “anthropic principle,” and his concern that the Nobel prize-winning physicist, Steven Weinberg, whom he calls “a tireless enemy of creationism” is in danger of accepting it. This principle is the idea that many basic constants of nature are “fine-tuned just to insure our own existence.” He asserts that: “Physicists hate this idea. Especially string theorists.”⁹

String theorists seem convinced that their theory, when fully developed, will be able to explain all the laws of nature and constants of nature without any need for a Creator or Intelligent Designer to establish the conditions necessary for life to be able to evolve within the fifteen billion years or so since the universe itself supposedly evolved out of a quantum fluctuation of nothing into something.

But there is still this problem of the “fine-tuning” of the universe for life. Weinberg himself has expressed the hope that “string theory really will provide a basis for a final theory”¹⁰ that would solve this problem. Weinberg does not want to believe in a divine Creator any more than do Susskind and other string-theory physicists. The problem is how to avoid postulating a Creator when there are so many evidences that our universe was indeed structured to accommodate life.

Dr. Susskind turns to two of his colleagues for a possible answer. “Suppose that, as Andrei Linde, Alexander Vilenkin and many other cosmologists believe, the universe is vastly larger than the region that has been astronomically explored. Might it be that the cosmological constant [that is, the ‘vacuum energy density’ in space] is not really a constant but varies throughout the unimaginably larger space? And might it also be that the number of possible values that it takes on is so large that practically every value occurs somewhere?”¹¹

That would mean that, somewhere in this vast multiverse of universes, there exists at least one universe where the laws and constants of nature do permit life to evolve. That, he thinks, would solve the problem, since that universe just happens to be the one where we live.

But can string theory really allow for such an infinite complex of universes? Yes, one of the virtues of string theory is that it can do most anything one wants it to do. “The mathematical evidence for this humongous landscape of string theory is mounting.”¹²

Linde¹³ and others had already developed the idea that an infinite number of “bubbles” could form in an inflating universe. Many of these would quickly develop into “pocket universes,” which would rapidly inflate and generate more bubbles and so on. This could, indeed,

seem like a “phantasmagoric image” to ordinary folk. In such a scenario, the anthropic principle, as applicable to our particular universe is just an accident. Dr. Susskind’s conclusion is:

If this view of nature is correct then there is cold comfort for those who look to the anthropic principle for a deeper meaning to their own existence. As Darwin’s principle of survival of the fittest eliminated the need for the hand of God to guide evolution, so the environmental interpretation of the anthropic principle eliminates the necessity for a guardian angel to fine-tune the laws of nature.¹⁴

But Susskind has admitted that these inferences from string theory have not been verified by either mathematics or observation. In fact, many physicists still reject this entire theory of strange strings altogether. Eric Chaisson, for example, in a recent book on cosmology and thermodynamics says that, “Although the theory of superstrings is now causing great excitement in the physics community, there is to date not a shred of experimental or observational evidence to support it.”¹⁵

Furthermore, to do away with God, this concept has to invent not only a multi-dimensional universe, but also a multi-universe polyverse! So far, at least, all these exist only in the world of mathematics and the minds of string-theory physicists.

What does the true God who created our real universe have to say about all this? We don’t know directly, of course, since none of the Biblical writers have even mentioned any such strange notions. As far as the implications of God’s Word are concerned, our universe extends spatially without end in all three of its dimensions of space and eternally forward in time.

Four dimensions do seem to be implied in Paul’s beautiful prayer for the


Christian believers at Ephesus, when he prayed that they

*May be able to comprehend with all saints [and that would include us as well!] what is the breadth, and length, and depth, and height; And to know the love of Christ, which passeth knowledge, that ye might be filled with all the fullness of God.*¹⁶

I don’t know, but I like to think that “height” is included in this prayer because “breadth and length and depth” apply not only to objects on the earth, but extend forever high into the heavens, and this could suggest “time” as well. And note how Paul concludes this prayer of his for the Ephesians:

Unto Him be glory in the church by Christ Jesus throughout all ages, world without end. Amen (Ephesians 3:21).

Endnotes

1. Harry J. Fuller: “The Emperor’s New Clothes, or Prius Dementat,” *The Scientific Monthly* (January 1951), pp. 32–41. Dr. Fuller was a professor of botany at the University of Illinois.
2. Leonard Susskind: “A Universe Like No Other” *New Scientist* (Volume 180, No. 2419; November 1, 2003), pp. 34–41.
- 3-5. *Ibid.*, p. 41.
6. *Ibid.*, p. 36.
7. *Ibid.*, p. 39.
8. *Ibid.*, p. 40.
- 9-10. *Ibid.*, p. 36.
11. *Ibid.*, p. 38.
12. *Ibid.*, p. 41.
13. A. D. Linde. “The Self-Reproducing Inflationary Universe,” *Scientific American*. Vol. 271, November 1994, pp. 48–55.
14. Susskind, p. 41.
15. Eric J. Chaisson, *Cosmic Evolution* (Cambridge, Massachusetts: Harvard University Press, 2001), p. 246.
16. Ephesians 3:18–19. 

IS BELIEVING IN EVOLUTION THE SAME KIND OF THING AS BELIEVING IN GRAVITY? by John D. Morris, Ph.D.

An article appeared in the Jan./Feb. 2004 issue of *The Professional Geologist* by paleontology Professor, James S. Mellett, with the intriguing title, “Question: Do You Believe in Evolution? Answer: Do You Believe in Gravity?” While the article brought nothing new to the debate, and indeed belied a substantial misunderstanding of creation thinking, its title indicates a profound misunderstanding of evolution as well and merits a response.

Let me remind you that “science” has always relied on human observation. Obviously, observations occur in the present, even if they relate to things in the past. For instance, paleontologists, who exist in the present, make observations in the present of fossils, which exist in the present even though the fossils are the remains of organisms, which lived in the past. Science is done in the present.

The study of gravity involves science, for the effects of gravity can be observed today. In fact, each and every time someone observes anything, gravity operates. Gravity is more than a theory, it is a law, and has never been known to fail. It seems nonsensical to ask, “Do you believe in gravity?” because we know for a certainty that gravity works.

Contrast this with evolution. By “evolution” I mean “macro-evolution,” or big changes such as the transformation of a fish into an amphibian or a dinosaur into a bird or an ape into a man. On a grander scale, evolution implies the common ancestry of all life, including amoeba-to-man. Evolution means that dogs evolved from a non-dog ancestor.

Today we observe dogs with many adaptations, even having speciated into domestic dogs, wolves, coyotes, etc., all inter-fertile, but this observed variety in the present does not address the ultimate origin of dogs in the unobserved past.

Evolutionists claim that large-scale evolution occurs too slowly to be observed today. The question remains, did it happen in the unobserved past, when no human was there to observe it? While gratuitously called a “historical” science, evolution thinking obviously differs from observational, empirical sciences such as the study of gravitational effects. In reality it is a historical reconstruction, attempting to decipher what happened in the unobserved past to make things get to be the way we observe them today.

While the evolutionary reconstruction of history may have some appeal, providing a way to arrange today’s array of life, it is far from proven. Creationists contend there is another, more scientifically robust way to understand history, i.e., that each basic type of life appeared abruptly, without having descended from some other type, and remained substantially the same, varying within limits, until either becoming extinct or surviving into the present. This view much better fits the observed facts.

The claim that evolution is as well proved as gravity surfaces repeatedly in evolution discussions. But the statement does not stand the test of scrutiny, nor does evolution fare well in comparison to the alternative. ☞



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