

The Tale of Two Statistics

We recently talked about “The Tale of Two Myths.” In this article, I would like to continue down a similar trend.

Evolutionary indoctrination is all around us now. We just can’t get away from it. That’s why I keep insisting, “If you don’t teach your children creation science, the world will teach them evolutionary fables.” For example: My children pick up a “kid’s meal” with the following time periods printed on the bag:

Triassic period: 245 million years ago,

Jurassic period: 208 million years ago,

Cretaceous period: 146 million years ago, etc. etc.

Other kid’s toys tell us that:

Andromeda is 2.2 million light years away,

Alpha Centauri is 4.3 light years away,

Sirius is 8.7 light years away,

Alnitak is 1.5 thousand light years away, and on and on.

These numbers are thrown around as if they are accepted fact. We are expected to just accept them. Could the Triassic period have been 244 million years ago instead of 245? Could Andromeda be 2.1 million light years away instead of 2.2? Do we even know how these measurements were established? Never mind what their accuracies and errors may be. When people publish numbers like these, it suggests accuracy, confidence, and authority.

Now for “The Tale of Two Statistics:” (Verbatim quotes from a radio program called “Earth & Sky” sponsored by the National Science Foundation, a branch of our federal government.)

Question: "Are there more stars in the sky, or grains of sand on the Earth?"

Answer: “No one knows how many sand grains there are on Earth. You can only estimate.”

After waving a few wild assumptions, they estimated somewhere between a billion billion and a trillion trillion grains of sand. Yet, listen to the response on the number of stars:

“It can be estimated -- step by step -- building on other estimates for the mass of our Milky Way galaxy and the typical masses of stars. Multiply the number of Milky Way stars by the number of galaxies in the universe -- determined from deep surveys in small areas of the sky, scaled up to the whole sky. The result -- a billion trillion stars in our universe -- a one with 21 zeros after it -- a number in between our two estimates for sand grains on Earth.”

Do we actually know the number of either? Heb 11:12 *...so many as the stars of the sky in multitude, and as the sand which is by the sea shore **innumerable**.* I am not concerned with the numerical answers of either of these calculations. My concern was the *implications*. The *implication* portrayed total uncertainty about the sand, which we can touch, squeeze, and taste (if you like). Yet the *implication* regarding the stars (something you better hadn’t attempt to touch, squeeze, or taste) was portrayed as a simple accurate calculation of fairly well known entities.

Let’s talk about a scientific principle called “significant figures.” If I took my yard stick and said my pencil is 7.527" long, you would say I was crazy! There is no way to measure anything to the thousandths of an inch with a yard stick. At best, we could say it is 7.5" long. On the other hand, if I took my precision vernier calipers and measured the length of my pencil, I could accurately measure it to the thousandths of an inch. In that case, the 7.527" would be fully valid and appropriate. Thus, if measured by the yard stick, the pencil is 7.5" long. If measured by the precision

vernier calipers, the correct answer is 7.527" long. The difference is the “significant figures” of the measurement process.

So how accurate can scientists date rocks in order to derive the ages above? Let’s look at two examples. The Cardenas Basalt at the base of the Grand Canyon, and the Basaltic rocks of the Uinkaret Plateau, have been dated by the “Rb-Sr model” method as follows:

| <u>Cardenas Basalt</u> | <u>Uinkaret Basalt</u> | |
|---------------------------|----------------------------|-------------------|
| 980 - 1100 ⁽¹⁾ | 1270 - 1390 ⁽²⁾ | millions of years |

Notes: (1) Based on six different tests

(2) Based on five different tests

I have chosen this particular example because the data points actually agree quite well with each other. (Often rock dating provides wildly different results!!) Note that the Cardenas Basalt appears to be about 1000 million years old. To say it is 980 million years old would be in error. To say it is 1100 million years old would also be in error. We could even attempt to average the data and say that the Cardenas Basalt is 1040 million years old, BUT, this number would erroneously suggest that the measurement is much more accurate than it really is. The number of “significant figures” does not support an answer with that many digits.

The same thing goes for those ages on the kid’s meal bag and the distance to the stars above. The number of digits in each of these numbers suggests accuracy way beyond the ability of the measurement. This is no different than making up the 7.527" length of my pencil if measured by a yard stick! No different! Here again, why do they fabricate these seemingly impressive, accurate numbers? To provide an appearance of confidence and authority to a science of virtually no credibility.

Why do I say “no credibility”? Let’s look at the Cardenas and Uinkaret Basalts once again. What I didn’t tell you is that the Uinkaret Basalt comes from a volcano on the ridge overlooking the Grand Canyon. Therefore, the Uinkaret Basalt cannot possibly be older than the Cardenas Basalt at the base of the canyon! Both Basalts were dated multiple times using identical methods. In every case, the volcano on top of the canyon “appeared” to be older than the basalt at the base of the canyon. (Keep in mind that this dating process measures Sr-Rb ratios, not years.) Clearly, from this data, we can draw two conclusions:

- 1) Since the multiple Sr-Rb ratio measurements of each individual basalt are fairly close together, we can say that the measurement process (for this example) is fairly repeatable. (+/- 60 million years, or 6%)
- 2) Since the volcano cannot possibly be older than the bedrock below, there is something fundamentally wrong with the extrapolation from “Sr-Rb ratios” to “years.” Thus, these ages are the products of mere imaginations. Just because a number sounds impressive, doesn’t mean that it is true!

The next time someone starts throwing around these foolish numbers, and they will, don’t ask to see their yard stick. That will only make them mad. Pray that the Holy Spirit will provide an opportunity to share the Gospel with them!

Because that, when they knew God, they glorified him not as God, neither were thankful; but became vain in their imaginations, and their foolish heart was darkened. Professing themselves to be wise, they became fools,... Romans 1:21-22