

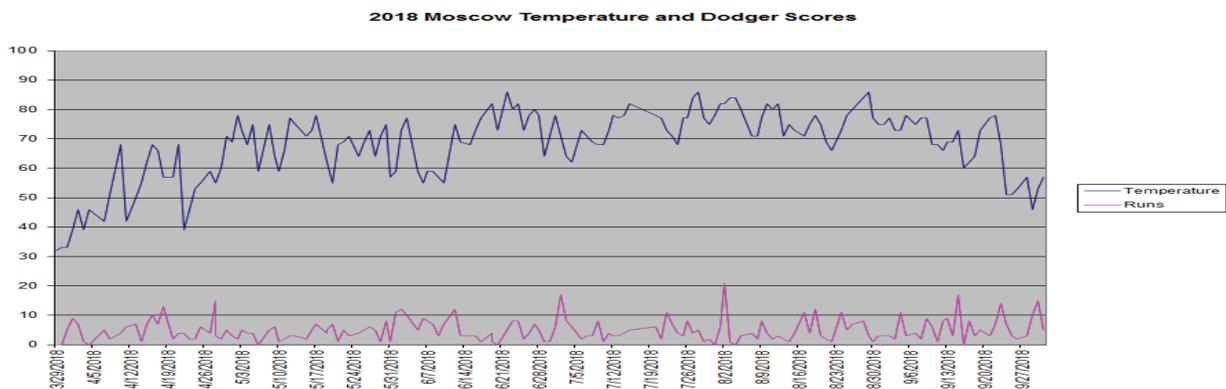
# Disclosure

of things evolutionists don't want you to know

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## MISLEADING MATH

*Misleading math can lead to incorrect conclusions about evolution.*



Nearly every article about evolution in the professional literature is full of calculations. Many times evolutionists (usually unknowingly) draw incorrect conclusions based on those calculations. To illustrate this, we will use actual data and perfectly valid mathematics to show there is a connection between the temperature in Moscow, Russia, and the number of runs scored by the Los Angeles Dodgers baseball team.

To be perfectly clear, we are not saying that evolutionists intentionally misuse math to prove something that isn't true (although in very rare cases an evolutionist might). We suggest that evolutionists who want to find mathematical proof of evolution will not question a calculation which seems to prove their point. And, to be fair, we will point out a classic example where creationists have done the same thing.

Furthermore, although we will prove the Russian connection using verifiably correct data and accurate, impartial calculations done by an Excel spreadsheet, we do not really believe that Russia affected the number of runs scored by the Los Angeles Dodgers. We are simply using a silly example to make our point.

Finally, we are going to try to make this explanation as enjoyable and understandable as we can for people who don't like math.

### STATISTICS AND PROBABILITY

The phrase "statistics and probability" is sometimes used as if statistics and probability are the same thing. There is an important difference. Statistics help us understand what happened in the past. Probability tells us what may happen in the future.

Las Vegas is built upon statistics and probability. Statistics tell the casino owners how much money was bet on roulette tables in previous years. Based on those statistics, casino owners can estimate the amount of money that will be bet on their roulette tables next year, and probability will tell them how much money they can expect to win next year if that much money was actually bet on the tables.

The classic mistake some creationists make is that they try to use probability to predict the likelihood of something that happened in the past. You no doubt have heard the "Tornado in a Junkyard" probability argument. You can't make

probability calculations about what happened in the past. (Well, technically, you can make the calculations—but they are meaningless.) Probability only works for future events. Probability can't tell what happened in the past.

### AN IMPROBABLE MARRIAGE

Consider this example: What is the probability that, sometime in the future, a man will be born on February 26? That's easy to calculate. The probability someone's birthday is February 26 is 1/365, which is 0.0027.<sup>1</sup> The probability that someone will die on September 12 of any given year is also 1/365. The probability that someone born on February 26 will die on September 12 is 0.0027 times 0.0027, which is 0.0000075. Those are pretty slim odds.

Similarly, the probability that a woman will be born on June 23 and will die on May 15 is 0.0000075. The probability that those two people will marry is 0.0000075 times 0.0000075, which is 0.000000000056. Since the probability that anyone's anniversary is March 1 is also 1/365, the probability those two people will get married on March 1 is 0.0027 times 0.000000000056, which is 0.00000000000015. That's not very likely.

Furthermore, what are the odds that they will get married in Franklin, Kentucky? There are so many places in the world to get married, the probability is just too small for me to calculate. Therefore, the probability that (in the future) somebody will be born on February 26 and marry someone born on June 23 on March 1 in Franklin, Kentucky, and will die on September 12 after his wife dies on May 15 is too small to imagine.

That incredibly low probability does not prove that Johnny Cash did not marry June Carter Cash on March 1, 1968. As improbable as it was, it did happen. Probability tells the likelihood of something happening in the future, but cannot be used to compute the likelihood that something happened in the past.

That's why we have never used the improbability argument against abiogenesis (the natural, spontaneous generation of the first living cell). Low probability for a past event is never a valid proof.

Yes, the probability that chemicals will spontaneously combine to form a living cell is so small that it is reasonable to believe that it will not happen in the future; and that is good reason to believe it didn't happen in the past—but it isn't proof that it didn't happen in the past. The real

<sup>1</sup> Yes, I know that birthdates, death dates, and anniversaries aren't equally likely; but let's pretend they are so as not to complicate the example too much.

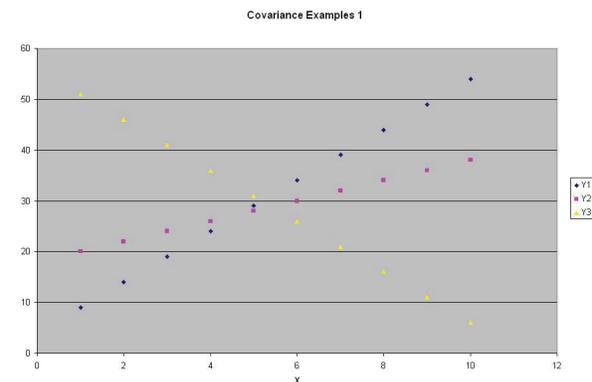
proof that it didn't happen in the past is that scientists have been unable to cause it to happen in the laboratory. The reason scientists haven't been able to cause it to happen in the laboratory is because one has to violate natural laws to do it. The scientific proof against abiogenesis is impossibility—not improbability. Scientific research has shown abiogenesis cannot happen through natural processes.

### CORRELATION

Just as creationists sometimes misuse probability, evolutionists sometimes misuse correlation to prove causality.

Mathematicians might cringe at the way we will oversimplify this; but here is a simple explanation of correlation: When one thing increases, another thing increases, too. Let's illustrate that with some simple numbers.

X	Y1	Y2	Y3
1	9	20	51
2	14	22	46
3	19	24	41
4	24	26	36
5	29	28	31
6	34	30	26
7	39	32	21
8	44	34	16
9	49	36	11
10	54	38	6
Correlation	1	1	-1



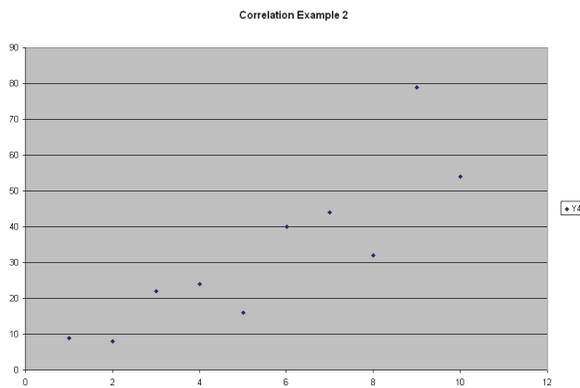
X is the independent variable plotted on the X axis. It goes from 1 to 10. The values in the Y1 column are dependent values which go from 9 to 54. They are plotted as black diamonds. The values in the Y2 column are plotted as red squares, and the values in the Y3 column are plotted as yellow triangles.

The Y1 and Y2 values increase as X increases, so they have a positive correlation. The Y3 values decrease as X increases, so Y3 is negatively correlated to X.

Because all the values fall on a perfectly straight line, the correlations for Y1 and Y2 are +1, and the correlation computed for Y3 is -1. The fact that the Y1 line is steeper than the Y2 line is irrelevant. Correlation has to do with how well the values fit on a straight line—not how steep that line is.

Let's take the Y1 values and corrupt them to create the Y4 values below.

X	Y4
1	9
2	8
3	22
4	24
5	16
6	40
7	44
8	32
9	79
10	54
Correlation	0.85785



Because they don't fit perfectly on a straight line, the correlation drops to 0.85785. If none of the values fit a straight line at all, the correlation would be 0.000.

The Excel spreadsheet calculates correlation according to the standard mathematical definition of correlation, which we don't want to try to explain. All you need to know is

- Correlation values range from +1 to -1
- Positive correlations (regardless of magnitude) mean that Y increases as X increases
- Negative correlations (regardless of

magnitude) mean that Y decreases as X increase

- Correlations very near 0 mean that the values of X and Y are not correlated
- Correlations near +1 or -1 mean that the values of X and Y are definitely correlated

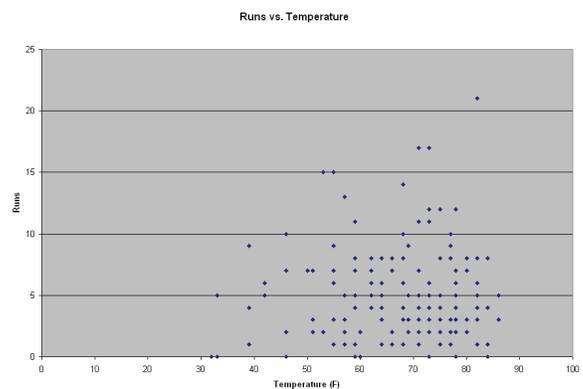
## RUSSIAN INFLUENCE

Now that the tutorial is over, we can examine how the weather in Moscow, Russia, influenced the number of runs scored by the Los Angeles Dodgers last season. ☺

The Internet can be used to find the scores of every regular season game the Dodgers played,<sup>2</sup> and the daily high and low temperatures at the Sheremetyevo Station in Moscow.<sup>3</sup> We copied the high temperatures for 162 Dodger dates, and the runs scored on those days (with two entries for the double-headers) into an Excel spreadsheet and analyzed the data. We placed the spreadsheet on our webpage<sup>4</sup> so you can examine all the raw data and calculations if you like.

We showed you the graph of the data at the beginning of this essay. Looking at the graph, you can see that the temperature in Moscow at the start of the season was around 50 degrees (Fahrenheit), it got hotter in the summer, and cooled off in the fall. (Duh!) There is no obvious trend in the baseball scores.

If you plot the runs scored versus the temperature in Moscow, the entire data set looks like this:



This was frankly surprising to me. I expected the data points to be bounded by a rectangle rather than a triangle because the number of runs scored has nothing to do with the temperature in Moscow. Because the data isn't a rectangle, the

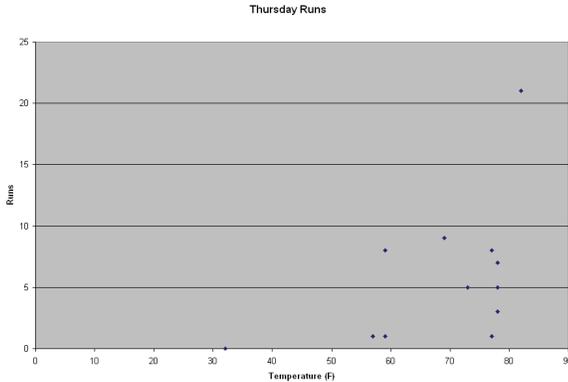
<sup>2</sup> <https://www.cbssports.com/mlb/teams/LAD/los-angeles-dodgers/schedule/regular/>

<sup>3</sup> <https://www.wunderground.com/history/monthly/ru/moscow-sheremetyevo/UUEE/date/2018-3>

<sup>4</sup> <http://scienceagainstevolution.info/v23i3.xls>, <http://scienceagainstevolution.info/v23i3.xls.pdf>

correlation coefficient isn't zero. It is +0.027, which is a slightly positive correlation.

The day of the week should not matter—but it seems to. If we just look at all the games played on Thursdays, the correlation coefficient is +0.504 and the scatter plot of the Thursday data looks like this:



The significant thing is not the day of the week—it's the fewer number of data points. Two data points will always fall on a perfectly straight line, and will always have a correlation of exactly +1, 0, or -1 regardless of whether or not they are correlated. The more points you add, the better the chance that not all the data points will fall on a straight line. Fewer data points generally result in higher correlations.

If you take all the Dodger data and divide it into seven data sets according to days of the week, and compute the correlation coefficient for each of the individual days, they are all as far, or farther, from zero than the correlation coefficient for all days combined because each day has fewer data points. Four are negative, and three are positive.

All days	0.027
Sundays	-0.027
Mondays	-0.062
Tuesdays	0.194
Wednesdays	-0.159
Thursdays	0.504
Fridays	0.060
Saturdays	-0.164

When evolutionists analyze their data statistically, they are likely to find correlation because there aren't very many samples to analyze. There just aren't very many relevant fossils. In the beginning, there weren't very many genomes that had been decoded, either. There still aren't very many genomes that have been decoded—but the more that are decoded (as we expected) the worse the DNA analysis fits the evolutionary theory.

## CAUSALITY

Sometimes evolutionists erroneously try to correlate things to prove causality.

The Thursday scores and temperatures really are correlated. That does not prove that the temperature in Moscow on Thursdays affects the number of runs scored by the Dodgers that day. In fact, it is the number of runs that the Dodgers score on Thursdays that causes the temperature to rise in Moscow! ☺ The solution to the Moscow warming problem is to get the umpires to give the Dodgers just one swing each time at bat so the Dodgers will score fewer runs, which will make it cooler in Moscow! ☺ (Hopefully, no politician will read that last statement and pass a stupid law based on it.)

Seriously, if A and B really are correlated, it might be because A causes B; but it could be because B causes A; or an unknown process C causes both A and B; or there might be no causal relationship at all—it's just a coincidence. Correlation does not prove causality. But math is so seductive when it confirms a pet theory, it is hard not to latch onto it.

## Evolution in the News

### EGG ON THEIR FACES

*Colored eggs don't prove evolution.*

In this month's feature article, we showed that there is a measurable positive correlation between the number of runs scored by the Los Angeles Dodgers and the high temperature at Sheremetyevo Station in Moscow. We did that to illustrate the fact that correlation does not prove causality. There is no Dodger-made Moscow warming, despite the correlation.

In that article, we claimed that evolutionists frequently use correlation for proof of evolution. Here is an example: Last month there was an article in the prestigious journal *Nature*,<sup>5</sup> that was endorsed by the prestigious journal *Science*,<sup>6</sup> and reported in the science tabloid *New Scientist*<sup>7</sup>

<sup>5</sup> Wiemann, *et al.*, *Nature*, 22 November 2018, "Dinosaur egg colour had a single evolutionary origin", pp. 555-558, <https://www.nature.com/articles/s41586-018-0646-5>

<sup>6</sup> Pickrell, *Science*, 31 October 2018, "Dinosaur eggs came in many colors—just like birds", <https://www.sciencemag.org/news/2018/10/dinosaur-eggs-came-many-colors-just-birds>, published under the title "Dinosaurs began colored eggs" on page 506 of the 2 November, 2018, print issue.

<sup>7</sup> *New Scientist*, 10 November, 2018, "Birds have their

that illustrates our claim. Normally, we would not bother to address the evolutionists' ridiculous assertion that birds inherited colored eggs from dinosaurs; but in light of this month's feature article, we can use it to prove our claim that evolutionists confuse correlation for causality.

Evolutionists have discovered that some dinosaur eggs were colored—and we all know some birds' eggs are colored, too. Reptile eggs are all pure white. Using some fancy equipment, some evolutionists were able to measure the color of dinosaur eggs and found that the colors of dinosaur eggs correlate with the color of bird eggs more than reptile eggs. Therefore, they conclude, birds inherited their colored eggs from dinosaurs.

Yes, it sounds silly when we say it—and it doesn't sound any less silly when they say it.

BIRD eggs come in an astonishing range of colours. And this variety all began with one dinosaur tens of millions of years ago.

Many modern animals lay eggs, but only birds lay colourful ones. As such, we used to assume that colourful eggs were a bird innovation.

But in 2015, Jasmina Wiemann, now at Yale University, and her colleagues discovered pigment in 66-million-year-old dinosaur eggs. They were blueish-green and probably laid by a type of oviraptor, a bipedal dinosaur that is a close relative of modern birds.

Now, the team has examined more dinosaur eggs, finding evidence that seven more dinosaurs laid colourful eggs – again mostly blue-green ones.<sup>8</sup>

Seven more dinosaurs laid colorful eggs! What more proof could you demand that “this variety all began with one dinosaur tens of millions of years ago?” ☺

The journal *Science* gushed over the report published in their primary rival journal.

As the researchers write today in *Nature*, the fact that they found colored eggs in so many carnivorous theropod dinosaurs that are closely related to birds—and exactly the same method of eggshell pigmentation—means colored eggs evolved “deep within the dinosaur tree and long before the spectacular radiation of modern birds,” likely more than 150 million years ago.

Tinted shells probably camouflaged dinosaur eggs from predators, as do the shells of today's birds, whereas distinctive speckling patterns may have helped parents distinguish their own eggs from those of cuckoolike

dinosaurian nest parasites, Wiemann says. Birds with white eggs today, such as ostriches, parrots, and some domestic chickens, must have later lost the trait of coloring their eggs through evolution, she says.

Traditionally, dinosaurs were thought of as reptilian-style breeders that dumped their eggs and left. But because egg color in birds is associated with complex nesting behaviors, this—along with existing fossil evidence—signals such advanced parental care may have also taken place among dinosaurs. Egg coloration as camouflage likely evolved soon after dinosaurs switched from burying their eggs to building open nests, Weimann adds, because from that point on, they needed to hide them from predators.<sup>9</sup>

Based on egg color, “scientists say” they know these things: Egg color evolved more than 150 million years ago; modern birds with white eggs somehow devolved from birds with colored eggs; dinosaurs may have exhibited advanced parental care; and dinosaurs switched from burying eggs to building open nests. It is all speculation, and no science.

The actual article in *Nature* is full of basically unquotable paragraphs like this one:

Only biliverdin was detected in *D. novae-hollandiae*, whereas only protoporphyrin IX was present in the eggshells of the Mongolian microtroodontid (MAE 14-40 (specimen codes in parentheses)), the Chinese and Mongolian troodontids, the Mongolian enantiornithine, *P. rothschildi* and *G. domesticus*. Both egg colour pigments were detected in eggshells from *H. huangi*, the Mongolian microtroodontid (IGM 100/1323) and macrotroodontid (AMNH FARB 6631), *D. antirrhopus*, *R. americana* and the North American ratite. The presence of eggshell pigments corresponds to (partially) open nesting habits (Fig. 1).

All eggshell and associated sediment samples were plotted on a whole spectra-based principal component analysis (PCA) (Extended Data Fig. 4 and its Source Data).<sup>10</sup>

In other words, they measured the whole spectrum of colored light reflected from the eggs, and compared them. Then based on how well the various colors of eggs of extinct dinosaurs correlated with the various colors of eggs of modern birds, they drew unwarranted conclusions.

This is not science. It is the improper use of math to make speculation sound credible.

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dinosaur ancestors to thank for their colourful eggs”, p. 18, [https://www.newscientist.com/inbrief/?issue\\_num=3203](https://www.newscientist.com/inbrief/?issue_num=3203)

<sup>8</sup> *ibid.*

<sup>9</sup> See footnote 6.

<sup>10</sup> See footnote 7.

by Lothar Janetzko

# FACTS & EVIDENCE AGAINST EVOLUTION

<https://www.drydeadfish.co.uk/facts-evidence-against-evolution>

*-- bonitas non est pessimis esse meliorem --*

The website review for this month looks at an article found on a UK website with the unique name of DryDeadFish. In the article, the author “examines the theories and methods used in dating the age of rocks and fossils, experiments in evolution through mutations, facts that are ignored, and how a cataclysmic global flood fits perfectly with the facts that we do have.”

The article begins by discussing microevolution and macroevolution. The author points out that these are not scientific terms. “To evolutionists, and to science, there is just ‘evolution’, and the fact that small changes occur are assumed to be proof that the large changes can also occur.” He believes that there is no factual evidence supporting macroevolution and many claims made by evolutionists are pure speculation. A discussion of the fossil record is presented to show that there is not any real evidence of species gradually evolving into other species on a large scale.

Next in the article you will find a lengthy discussion of facts and theories. You often hear evolutionists complain when people call evolution, “just a theory.” They want you to believe in the “fact” of human evolution. “Science is claimed to be the opposite of religion, being fact-based rather than faith-based.” This really is not true. A great deal of faith is required to believe the many claims evolutionists make regardless of the speculation involved in their claims. In the article you will find a discussion of several theories that once were considered factual but now have been proven false.

What follows next is a discussion of the flaws in the theory of macroevolution through mutation. Here you can read about experiments related to evolution made with fruit flies and *E. coli* bacteria.

The topic of calculating the age of the earth by means of fossils, geological layers and dating methods is discussed next. The problem with most of the different methods is that the assumptions made to determine the age of rocks or organic material have not proven to be accurate.

The last topic discussed is the flood theory. The problem evolutionists have with the occurrence of a global cataclysmic flood is that it suggests that “sedimentary layers are not millions of years old and neither are the fossils within them.” Evolution really requires millions of years of time to allow for macroevolution to take place.

P.S. In case you are wondering. The Latin Phrase “*bonitas non est pessimis esse meliorem*” means “It is not goodness to be better than the worst.”



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