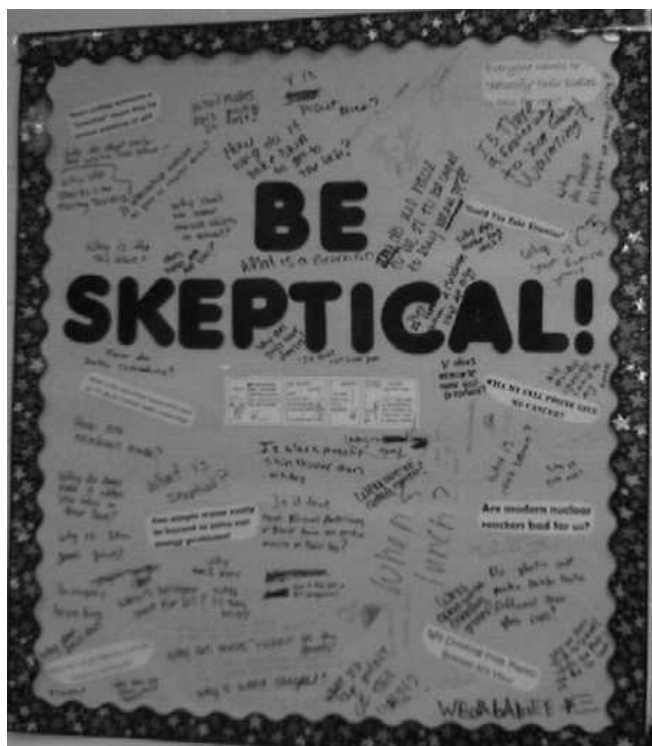




Teaching critical thinking

by John Blanton

The March meeting of the NTS featured a talk by science teacher Jamye Johnston. Jamye has previously been a scientist (biology), and she became a teacher in the Grand Prairie public school system to promote scientific thought in the classrooms.



Teacher Jamye Johnston uses the Be Skeptical poster in her classroom to encourage students to ask questions.

Photo by Jamye Johnston

The creation/evolution battle, she explains, has already been won. Teachers really need to concentrate on training young students how to think. This is a process made especially difficult by the modern requirement to address uniform achievement tests, upon which schools, and teachers, are rewarded, or not.

Jamye gave her explanation of critical thinking.

The ability to come up with questions on your own to address observations. It is:

- Skillful
- Reflective
- Informed
- Focused

It is NOT – Something a multiple choice can test effectively.

Students, when presented the opportunity to provide an explanation will often ask “What are the choices?” They are uncomfortable with the idea of proposing something that is at odds with the norm. Something else that is not new is social pressure to not stand out. Jamye’s school is exemplified by a low-performing student body, and many of the kids refuse to participate in any kind of learning activity and are only biding their time until they pass the age of compulsory education. It appears to be a self-perpetuating situation.

Jamye counters this environment by continually challenging her students with a “Be Skeptical” board in her classroom. Students are encouraged to post questions, such as “Why do some Hispanics have blue eyes?” The questions remain to allow others to review them and to consider possible answers.

Valuable lessons emerge: Critical thinking is not encouraged by giving ready answers. Teachers should not be oracles. Students must learn to resolve issues independently of authority.

She also relates real science to their own lives:

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In addition to my Be Skeptical board activity, I spend the first
 5-10 minutes of class on Friday discussing what new research
 or discoveries have been made in science that week.

The kids are often surprised that advances are being made
 RIGHT NOW. Discoveries intrigue them and make them feel
 like they are part of a changing world. Their responses are of-
 ten comical. (Example: Vincent)

Discuss the experimental techniques that the scientists used to
 reach their conclusions. What questions were they trying to an-
 swer? Was their experiment successful? – This helps students
 understand that not all science is about getting the answers you
 expect!

Jamye makes use of her extensive experience with the modern skep-
 tical community. Her lessons dip into the able demonstrations of people
 such as James Randi. She illustrates with Randi's take on astrology in
 the *Nova* video *Secrets of the Psychics*.

One standard horoscope.

- Tell the class that on a specified day, you will take the time
 to pull up each of their birthdays and write a very specific horo-
 scope just for them, and that they will be allowed to “grade”
 you on your analysis, and how accurate it is.
- Pass out the horoscopes to the class and explain that in or-
 der to remain unaffected by other people's thoughts of them,
 they can't share their horoscope with anyone else yet.
- Allow them to read and “grade” their horoscope, circling
 things that apply directly to them, and crossing out things that
 don't. Have them rate the accuracy on a scale.
- When everyone is done, explain you are going to have them
 grade the horoscopes of their classmates who know them well,
 and exchange horoscopes.
- Explain how we all have things that we consider unique and
 that we think are completely different from everyone else in the
 world, but we often share the same worries and feelings and
 goals.
- How might people use these similarities in our thought pat-
 terns to take advantage of us? How can you use this knowledge
 to prevent someone from taking advantage of you?

Jamye is giving a presentation along these lines at the Amazing
 Meeting in Las Vegas later this year. Here are the details: ¹

The Amaz!ng Meeting 8
 July 8-11, 2010
 South Point Hotel and Casino.
 9777 Las Vegas Blvd South
 Las Vegas, NV 89183
 southpointcasino.com

References

1. <http://www.randi.org/site/index.php/amazing-meeting.html>



Quote mining and common ancestry

by Prasad Golla

Let me say it outright. *Quote mining* is an evil activity. Those who indulge in it are mentioned in derogatory terms.

Let me explain *Quote mining* with a proper way of quoting others' writings and sayings. This quote is from David DeWitt, Ph.D., Director, Center for Creation Studies and Professor of Biology at Liberty University.¹

Generally speaking, quote mining refers to quoting out of context or quoting in a way to distort the intended meaning. An example that is frequently brought up are some of Stephen J. Gould's quotes about the fossil record. A sentence or two could be pulled out that would make it seem like Gould didn't believe in evolution at all when what he really was critical of was the uniform gradualness of evolution.²

I couldn't have explained that better. I usually hear skeptics, rationalists, scientists and proponents of the theory of evolution complain about creationists and such.

So, I **had** to open that message in my cluttered mailbox whose subject line read: "Creationist David DeWitt complains about quote mining"

Dr. DeWitt mentions this upfront in his December 2009 message:

Thanks for the opportunity for a defense. I saw this soon after it was posted over a year ago. My first response is that it is quite ironic.

Ironic because the author essentially quote mined my book in order to accuse me of quote mining. Notice there are only 3 sentences of mine which are in this blog article. The rest are quotes or partial sentences.

My second response is that my book must be quite good if this is the best criticism he can muster against it.³

What? The best criticism that anyone can come up with against a Creationist book makes the author (of the Creationist book) feel good about it? That elevated my attention further.

And my attention was already at that time at the level of watching the climax of an adventure movie.

I found out about the Creationist book in question from Dr. DeWitt's next paragraph itself:

This blog is referring to Chapter 5 of my book titled "Not So Natural Selection" [See Figure 1]. After a brief historical information about Charles Darwin, I begin a section on the nuts and bolts of biological evolution and the title heading is "Principles of Evolution."⁴

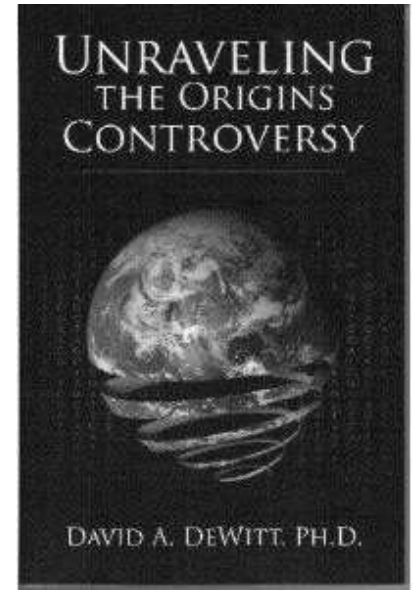


Figure 1

Those who know me can tell you that I stay out of debates, arguments, and name-calling. And they can tell you how humble I am too. (Ok, let's not go there.) In that spirit I don't want to say much more on *Quote mining*, except it is bad. To let the matter rest I am even willing to concede that Dr. DeWitt hasn't quote mined. "Generous," you may say. That's the kind of guy I am. How can I find fault with him when he ends the letter of defense thus?:

"I went out of my way to write the book in such a way that an evolutionist would disagree with my arguments but would also admit that I presented their side accurately."⁵

The main complaint of Dr. DeWitt seems to be about '*common ancestry*.' He finds it a weak argument. He thinks the *homologous structures* in species aren't because of a *common ancestor* but because there is a *common creator*.

Dr. DeWitt's letter explains that in detail in the E-mail message. He quotes the following from a textbook and points it out as 'circular reasoning':

Or consider this from a recent biology textbook: "Similar structures in two or more species are called homologous structures if the structures are similar because they evolved from the same ancestral structure."⁶

Dr. DeWitt calls evidence of common ancestry weak thus:

Similarity is very weak evidence because it is the logical fallacy of affirming the consequent. It is the

You look similar. You have a
Common Creator.

Duh, we are twins.



Cartoon by Prasad Golla

same as —

1. Broccoli makes me sick
2. I am sick
3. Therefore I ate broccoli.

Obviously I could be sick because I caught a virus.
Common ancestry would be like this —

1. Similar organisms are derived from common ancestors.
2. Organisms are similar.
3. Therefore all organisms come from common ancestors.⁷

Dr. DeWitt seems to have caught us red-handed. There is no hiding the fact anymore. Since science is based on evidence, it does work that way. If there isn't any other 'reason' that the person is getting sick other than eating broccoli, until some evidence for that other cause (virus?) is shown ('lack of evidence' and all that), science will consider that broccoli is causing the person to get sick.

It's a 'false dichotomy' to assume that since one isn't true the other must automatically be true. If we want to show that a virus is making the person sick, then we need to build up evidence for that cause. In reality, the chances that a virus is causing someone to get sick is much higher than the cause being broccoli. This is, in the least, a lop-sided analogy. A neutral argument will give an example as such.

If A then B
B
Therefore, A is supported

Today, the best evidence (nay, iron-clad evidence) for homologous structures in various species is "common ancestry."

For now the score stands: creationism, **0**, and 'common ancestry of all creatures on this earth *and* that they have evolved through slow evolutionary processes by natural selection,' **1**.

Let's see some evidence to the contrary, rather than complain that the hypothesis isn't true. Good for us that scientific theories and hypotheses are falsifiable. Any evidence to the contrary would disprove long-held theories. Theories in science, however huge, are always tentative, and are subject to be toppled at any time (however unlikely that prospect may seem). We gain confidence in the theory as evidence mounts up.

After decades of creationist research, not a shred of evidence has come out to show that anything other than 'natural selection and common descent' are behind homologous structures in species. We can accept seemingly contorted definitions because there is evidence for them. And deem those without any evidence to mere could-have-beens in spite of their seeming obvious to some of us.

There is no accounting for belief. In my life I've prayed for rain, but wasn't able to prove that my prayers helped on the occasion when it did rain. I've gotten the same inconclusive results when I prayed for it not to rain. Quite a few outdoor games got washed out despite my prayers. Maybe I didn't pray hard enough.

David DeWitt, a Liberty University biology professor, opens his classes with a prayer, asking God to help him teach his students. "I pray that you help me to teach effectively and help the students to learn and defend their faith," he says.⁸



Prasad Golla is a member of the North Texas Skeptics and serves on the board of directors. He is also one of the underwriters of the 'paranormal challenge,' administered in conjunction with North Texas Skeptics.

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1. <http://www.liberty.edu/academics/arts-sciences/biology-chemistry/index.cfm?PID=6627>
2. <http://www.ntskeptics.org/2010/2010april/DeWitt.txt>
3. Ibid.
4. Ibid.
5. Ibid.
6. Ibid.
7. Ibid.
8. <http://www.commondreams.org/headline/2010/03/10-2>

MIOS

by John Blanton

MIOS is the Metroplex Institute of Origin Science. The “Metroplex” referred to is the local term for the Dallas-Fort Worth area, and if you deduce that “Origin Science” is code for “creationism,” then you can go to the head of the class. From their Web site: ¹

The Metroplex Institute of Origin Science () was founded in 1987 by Dr. Don R. Patton and other interested individuals that wanted to show within the Dallas/Ft. Worth Metroplex, the scientific evidences for Creation to an otherwise propagandized community. The group began small but has grown over the past 20 years into a large variety of individuals including public educators, home school educators, medical doctors, dentists, scientists, researchers, students and other interested parties.

I have been attending their meetings since 1989 and have gotten to know Don Patton. He is a personable man dedicated to his beliefs in young Earth creationism (YEC). Don’s talks are always well presented and interesting.

MIOS meetings are, with a few exceptions, on the first Tuesday of each month at 7:30 p.m., and more recently they have been held at the Dr. Pepper Center at 12700 North Stemmons Freeway in Farmers Branch. Generally the meetings are free and open to the public.

Highlights of these meetings are the occasional guest speaker. About 1990 Dr. Edward Boudreaux, then professor of chemistry at New Orleans University, came to explain why the source of energy generated by the sun is not fusion of hydrogen. Unfortunately, physicist Bruce Cragin also attended the lecture and pointed out the good professor’s explanation ignored some basics of quantum mechanics. Dr. Cragin was at the time doing post doctoral work in plasma physics at the University of Texas at Dallas. Edward Boudreaux has also published in *Impact*, a publication of the Institute for Creation Research, a YEC organization from California that recently relocated to Dallas. ²

A recurring speaker is David Bassett. He has been head of Science Department at Ovilla Christian School south of Dallas. As we mentioned in the February 1997 issue of *The North Texas Skeptic*, David gave a lecture at MIOS explaining why evolution cannot be true. It’s this way: Evolutionary theory stipulates that dinosaurs have gone extinct. However, dinosaurs still live on the Earth, particularly in a dark and remote region on the African continent. They are able to survive here, David

explained, because there is a lot of moisture in the air, making it more dense and maintaining a pressure of 1.3 to 1.5 times normal. ³

The next MIOS meeting is April 6, and will feature a presentation on “Pressing Questions in Creation Biology.” The talk will be organized by David Bassett, the speaker will be Dr. Nathaniel Jeanson. Here is the lecture description from the MIOS Social Network site: ⁴

The fact of Noah’s Flood has enormous implications, not only for geology, but also for the nature of biological change. Of the three major predictions that Scripture makes about the mechanisms that promote and limit biological change, none have been well-investigated by the creation community. Dr. Jeanson will discuss these predictions as well as some preliminary scientific data relevant to these Scriptural conclusions.

After receiving his Ph.D. in cell and developmental biology from Harvard Medical School in 2009, Dr. Nathaniel Jeanson, joined ICR as a research associate. While at Harvard, he assisted in adult stem cell research, specifically on the role of Vitamin D in regulating blood stem cells. Dr. Jeanson also had the opportunity to be a stem cell panelist at the Massachusetts Citizens for Life convention and to submit testimony when the Massachusetts legislature tried to overturn laws prohibiting the use of human embryonic stem cells.

YECs need to retain the story of the flood of Noah from Genesis. Else they are hard pressed to explain modern geology and modern biology in the light of biblical inerrancy.

I have not attended MIOS meetings in several years. Work has kept me out of town much of the time, and I have had schedule conflicts at other times. I previously received meeting announcements by e-mail, but it is possible MIOS no longer sends these out. It is also possible I have been dropped from their mailing list.

A few months back I responded to a reader’s complaint about a perceived injustice against Don Patton. I responded by writing an elaboration on the issue. The issue concerned Don Patton’s Ph.D. degree, which he obtained from a dubious source in Australia, and my response spanned two issues of *The North Texas Skeptic*. I have had no mail from MIOS since that time. ⁵



References

1. http://dfwmios.com/about_us.htm
2. We previously covered Dr. Boudreaux’s publication in the February 2001 issue of *The North Texas Skeptic* at

<http://www.ntskeptics.org/2001/2001february/february2001.htm#impact>

See also

<http://www.icr.org/article/basic-chemistry-test-creation/>

3. <http://www.ntskeptics.org/1997/1997february/february1997.htm#mios>
4. <http://miosusa.ning.com/events/pressing-questions-in-creation>
5. See the two-part series here:
<http://www.ntskeptics.org/2009/2009october/october2009.htm#degree>
<http://www.ntskeptics.org/2009/2009november/november2009.htm#quote>

What's new

By Robert Park

[Robert Park publishes the What's New column at <http://www.bobpark.org>. Following are some clippings of interest.]

Manna: isn't that a gift from heaven?

The town of Odessa, MO, population 4,818, located somewhere east of Kansas City, needs jobs. So when a company, Manna of Utah, said it wanted to build a plant there employing 3000 people, folks cheered. All the town had to do was provide \$90 million in revenue bonds and a site. The company even flew local officials to Florida for a demonstration of the "world-changing" technology that would be built there. It's a home generator developed by Maglev Energy in Largo, Florida, which is leasing the technology to Manna of Utah. State Representative Mike McGhee (R-Odessa) said the product would be the "equivalent of the light bulb." Steve Everly of the Kansas City Star thought it might be a good idea to check with scientists and engineers, including Bob Park. The mayor of Odessa, Tony Bamvakais, who went on the trip to Florida, says it's not a perpetual motion machine, but it's "so efficient that it keeps on producing power when it's unhooked from an outside power source."

Patent nonsense: case law on perpetual motion machines.

When Joseph Newman was refused a patent for his Energy Machine he sued the US patent office. Legendary US District Court Judge Robert Penfield Jackson ordered Newman to turn his machine over to the National Bureau of Standards for testing. It was found to be a motor/generator of a design vastly infe-

rior to those on the market. The case, Newman v. Quigg (Quigg was the patent Commissioner) is cited as case-law giving the patent office authority to reject perpetual-motion claims out of hand. The only effect is that they are no longer called "perpetual motion machines." They are called over-unity devices, or zero-point-energy machines. Coverage of the Joe Newman case in Wikipedia is terrible. It's a remarkably useful encyclopedia, but you need to verify.

Belief: Francis Collins is free to hold any beliefs he likes.

This week saw the publication of his new book, "Belief: Readings on the Reasons for Faith." But he is now the director of the nations largest science agency, having promised to set his personal quirks aside for the time. The argument is made that the book is work he did before he became director, but that's pretty thin cover. He could wait until he steps down. Modern science had its birth with the assertion of the Greek philosopher Thales in 585 B.C. that every observable effect has a physical cause. We should not regard any person as educated unless he understands those words, including the director of NIH.

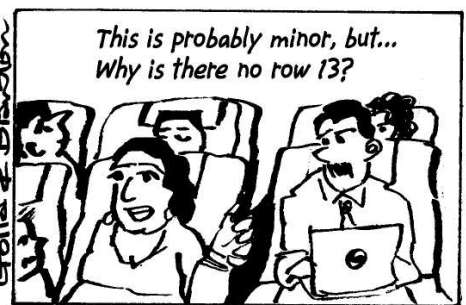
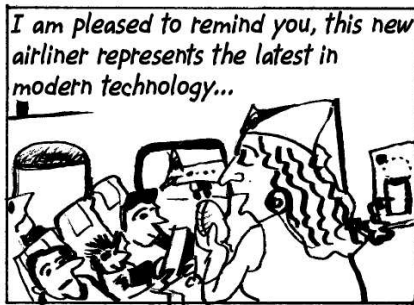
Cell phones: the Maine problem is scientific ignorance.

The use of cell phones has become ubiquitous in modern society. There is also a lot of brain cancer. This has led to a lot of people to suggest that the two are connected, and the state of Maine is considering legislation that would require cell phone manufacturers to print a warning on the product. But has the incidence of brain cancer increased at anything like the numbers of cell phones. It is a troubling issue for most physicists who recognize that cell phones almost certainly can't cause cancer. All known cancer agents act by breaking chemical bonds in DNA, creating mutant strands that may multiply to become can-

Future Meeting Dates

- 17 April 2010 (NTS program meeting)
- 24 April 2010 (board meeting and social dinner)
- 15 May (NTS program meeting)
- 19 June (NTS program meeting)
- 17 July (NTS program meeting)
- 21 August (NTS program meeting)
- 18 September (NTS program meeting)
- 16 October (NTS program meeting)
- 13 November (NTS program meeting)

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cers. Microwave photons are orders of magnitude short of being able to break chemical bonds. The Federal Communications Commission, the Food and Drug Administration and the American Cancer Society recognize this, but for most Americans the words quantum mechanics are simply an announcement that you won't understand what follows. Even a very bright high school student probably won't have any idea what you're talking about.

Imaginary science: the great drug war south of the border.

The United States and Mexico are separated by a 3000 km border that stretches across the most forbidding desert in North America. Mexican drug traffickers, for whom the US drug market is El Dorado, are fighting a bloody war with the democratically elected government of Mexico over control of the border. According to Monday's *New York Times*, outgunned Mexican officials spent more than \$10 million to purchase high-tech dowsing rods to detect caches of drugs, or weapons or anything else you have in mind. The first application was as a golf-ball finder sold in Golf-Pro shops, <http://bobpark.physics.umd.edu/WN96/wn012696.html>. The Mexican army says the devices are extremely helpful. Made in the UK by Global Technologies Ltd., the GT 200 has no sensors. Priced at more than

\$20,000, its a plastic rod attached to a hand grip by a swivel, allowing the rod to point in any direction depending on the orientation of the handle. That also describes the ADE 650 sold by ATSC Ltd., another UK company which recently sold 1,500 imaginary detectors to the Iraqis to search for explosives at checkpoints <http://bobpark.physics.umd.edu/WN09/wn110609.html>. Could Global Technologies and ATSC be the same company, switching names and locations to avoid exposure.

Acupuncture: may it go the way of prayer.

BBC news this week reported that the British Fertility Society warns that there is no evidence that acupuncture or Chinese herbal medicine boosts the chances of getting pregnant through in vitro fertilization. You will recall that just a month ago we reported what we hope was the end to the prolonged struggle between courageous California obstetrician Bruce Flamm and the claim of fertility clinic owner Qwang Cha that prayer arranged by his clinics contributed to success of the procedure. Both cases involved beliefs that began in early childhood when the brain was still open to its first language.

Bob Park can be reached via email at opa@aps.org.

EVENTS CALENDAR

April program

Saturday, 17 April at 2 p.m.
2900 Live Oak Street in Dallas

Rupert Sheldrake's experiments

Cambridge-educated chemist Rupert Sheldrake wrote about seven experiments that can change the world. We will look at one of them. Can people tell when someone is staring at them? Sheldrake says yes. We say, "Let's check it out." If you can, come on out. You may qualify for the \$12,000 challenge if you can.

NTS board meeting and social dinner

Saturday, 24 April at 7 p.m.

To be decided. It could be:
El Fenix Mexican Restaurant
5280 Belt Line Rd
Dallas, TX 75254

If you plan to attend, please call. We sometimes cancel or change these events. 214-335-9248

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FIRST CLASS

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Membership agreement:

Yes, I agree with your purposes in exploring paranormal and pseudoscientific claims from a responsible and scientific point of view, and while I do not endorse the a priori rejection of paranormal phenomena and pseudoscientific claims, I believe that such claims must be subjected to the fair and systematic testing which rational enquiry demands.

Signature _____ Date _____

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