



“If we have learned anything at all in a century and a half of evolutionary biology, it is that facile generalizations are dangerous. The evolutionary process finds a way to create exceptions to every model we propose.”
 Austin L. Hughes, from the [June 20](#) entry.

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Darwin Debates Attract Rhetoricians, Some Pro, Some Not

08/31/2005

Nothing like a controversy to get people talking. Some understand the issues and speak with skill and style; some just like to be part of the excitement. Here are samples from the war of the words over evolution:

- [Connect the Dots](#): Having just read Richard Weikart's *From Darwin to Hitler* (02/03/2005), Chuck Colson on [BreakPoint](#) drew parallels to the Terry Schiavo incident.
- [The Skill of Skell](#): Dr. Philip S. Skell again showed the power of a cogent editorial as he asked "Why Do We Invoke Darwin?" in [The Scientist](#). He claimed that Darwinian evolution is essentially useless as a heuristic in experimental biology. The subscription-only article has been reprinted by [Discovery Institute](#).
- [Sports ID](#): Sally Jenkins, sports writer in the [Washington Post](#), gave surprisingly good press to ID. Her point is not that ID is good science, but a little philosophical adventurism can be helpful. Seems to have a point



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here and there, but mostly name-dropping and complaining that the human body isn't perfect. Rob Crowther at [Evolution News](#) liked it. He thought she hit a home run – at least for getting the definition of ID straight.

- **Larsony:** Edward J. Larson, professor of science history (U of Georgia), told the [LA Times](#) what he thought the country needs to do about ID: not replace Darwinism, which he feels has been useful to science, but use it as a teachable moment: “good biology teachers could use issues raised by the intelligent design movement to help their classes better understand Darwinism.” Larson delivered the lectures “The Theory of Evolution: A History of Controversy” in 2002 for [The Teaching Company](#) Great Courses Series. He recognized then and now that most people do not accept doctrinaire evolution and that their values need to be taken into consideration by scientists and educators. Nevertheless, he agrees with the scientific establishment that science must operate by methodological naturalism. Tom Magnuson at [Access Research Network](#) considers Larson a brilliant man with blinders on.
- **Highlander Games:** No Bobby Burns is he; guest columnist for [The Scotsman](#), Robin Dunbar, called ID a “dangerous folly” and let President Bush have a piece of his mind.

When the rhetoric flies, the wise advise sense, not sensationalism. Some get it right, some have no context. This debate has deep roots in history. Perpetuating buzzwords or labels is not going to make the debate over naturalism vs. design disappear. Caution: read news articles and editorials on this issue only with [Baloney Detector](#) engaged and in good working order – but do read.

Next headline on: [Darwinism and Evolutionary Theory](#) • [Intelligent Design](#)

“Marvelous Puzzle”: Enceladus’ South Pole Surface Less Than 1,000 Years Old 08/30/2005

Enceladus, a moon of Saturn smaller than the British isles ([comparison image](#)), has a region at the south pole that is less than 1,000 years old, and maybe only 10 years old. This conclusion, announced at [Cassini](#) science briefings in London August 30, is based on multi-instrument observations taken July 14 during the closest flyby ever of Enceladus ([08/09/2005](#), [07/14/2005](#)). Crystalline ice has been found in four 80-mile-long parallel canyons dubbed “tiger stripes” due to their appearance. Water ice has been observed venting into a plume of small particles from these cracks, which are noticeably warmer than the surrounding regions. Measurements from all the instruments aboard the [Cassini spacecraft](#) converge on the conclusion that Enceladus’ southern polar surface is young, probably active today.

Two instruments detected icy particles coming from the south pole. The Ion and Neutral Mass Spectrometer (INMS) and the Cosmic Dust Analyzer (CDA) measurements reached a peak at closest approach ([graph](#), [flyby chart](#)), showing that material is being emitted now, and probably accounts for at least some of the fresh material replenishing the E-ring around Saturn. The [Magnetometer](#) (MAG) confirmed the existence of this plume by watching its asymmetric influence on the magnetic field lines around Enceladus; the [Ultraviolet Imaging Spectrometer](#) arrived at the same conclusion. The Virtual and Infrared Mapping Spectrometer (VIMS) ([picture](#)) and Composite Infrared Spectrometer (CIRS, see [article and picture](#)) showed a temperature rise across the tiger-stripe cracks up to -296°F, approximately 27° warmer than expected – enough to cause sublimation of ice from the surface. The crystalline nature of the ice constrains its age to 1000 years or less. Crystalline ice rapidly changes to an amorphous structure when exposed to solar radiation. Another odd thing about the tiger stripes is that each of them curves into a question mark shape at one end, all facing the same way

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“[Creation-Evolution Headlines] is *the* place to go for late-breaking news [on origins]; it has the most information and the quickest turnaround. It’s incredible – I don’t know how you do it. I can’t believe all the articles you find. God bless you!”
(a radio producer in Riverside, CA)

“Just thought I let you know how much I enjoy reading your ‘Headlines’ section. I really appreciate how you are keeping your ear to the ground in so many different areas. It seems that there is almost no scientific discipline that has been unaffected by Darwin’s Folly.”
(a programmer in aerospace from Gardena, CA)

“I enjoy reading the comments on newsarticles on your site very much. It is incredible how much refuse is being published in several scientific fields regarding evolution. It is good to notice that the efforts of true scientists have an increasing influence at schools, but also in the media.... May God bless your efforts and open the eyes of the blinded evolutionists and the general public that are being deceived by pseudo-scientists.... I enjoy the site very much and I highly respect the work you and the team are doing to spread the truth.”
(an ebusiness manager in the Netherlands)

“I discovered your site through a link at certain website... It has greatly helped me being updated with the latest development in science and with critical comments from you. I also love your [baloney detector](#) and in fact have translated some part of the baloney detector into our language (Indonesian). I plan to translate them all for my friends so as to empower them.”
(a staff member of a bilateral agency in West Timor, Indonesia)

“...absolutely brilliant and inspiring.”
(a documentary film producer, remarking on the [07/10/2005](#) commentary)

“I found your site several months ago and within weeks had gone through your entire archives.... I check in several times a day for further information and am always excited to read the new articles. Your insight into the difference between what is actually known versus what is reported has given me the confidence to stand up for what I believe. I always felt there was more to the story, and your articles have given me the tools to read through the hype.... You are an invaluable help and I commend your efforts. Keep up the great work.”
(a sound technician in Alberta)

“I discovered your site (through a link from a blog) a few weeks ago and I can’t stop reading it.... I also enjoy your insightful and humorous commentary at the end of each story. If the evolutionists’ blindness wasn’t so sad, I would laugh harder. I have a masters degree in

([picture 1](#), [picture 2](#)). Could this be a rotational effect?

The closest-approach image ([picture](#) and [zoom-in movie](#)) revealed boulders about 20m in size that [New Scientist](#) said could be ejecta from eruptions. That Enceladus should be erupting material today is puzzling to the planetary scientists for several reasons. For one, the north pole is heavily cratered and therefore looks much older; why would the south pole be active, when normally the equatorial regions are the warmest? (compare [prediction vs. observation](#)). Another puzzle is the comparison with [Mimas](#), a moon of similar size. Mimas is heavily cratered with no activity, even though it was pummeled by a colossal impact at some time in the past and is subject to greater tidal stresses due to its proximity to Saturn. Finally, small bodies cool the fastest. A moon the size of Enceladus should long ago have lost all its internal heat and remained forever frozen solid.

To account for the heat and resultant activity ([03/04/2005](#)), planetary geologists are constructing models combining radiogenic heat from a rocky interior and tidal heating from interactions with Saturn and other moons. So far, however, these energy sources seem to come up short by an order of magnitude or two (see [New Scientist](#)). This is a “marvelous puzzle,” said one scientist; another said that “Enceladus is constantly evolving and getting a makeover.” Enceladus joins a “short list of bodies in our solar system where scientists have found internal activity,” the press release said. That list includes Io ([05/04/2004](#)), Titan ([06/09/2005](#), [05/18/2005](#), [04/08/2005](#)), Triton, and Earth. Most other bodies exhibit surface features that, while not active today, appear young ([06/05/2003](#) commentary). The Cassini team expected that Enceladus would prove one of the prima donnas of the Saturn system. It appears that she delivered a “stunning surprise” of a performance.

Sources: [JPL](#), [Cassini](#) press release, [NASA Cassini page](#), [New Scientist](#), [BBC News](#), the [Planetary Society](#), [EurekaAlert](#) and the [Cassini Imaging Team](#). The latter contains polar projection maps, a graph and flyby chart, and three models attempting to explain the heating process.

Scientists love a good puzzle, and being surprised is fun; we can all share the excitement of a new and baffling phenomenon. But what none of them seems to be asking is the obvious question: how could this moon be anywhere near 4.6 billion years old? Look at the size of those canyons – 80 miles wide and 50 miles apart – they speak of large-scale processes at work, not just minor eruptions. This revelation is just the latest in a long string of discoveries that challenge the consensus view of the age of the solar system. For all the flash and color of the model diagrams, [New Scientist](#) says that tidal heating and internal radioactivity are not anywhere near sufficient to drive the activity. Why not consider the possibility that Enceladus – as well as the solar system that contains it – is young.

Don't miss the [zoom-in movie](#); it is really cool. It puts the imaging capabilities of Cassini into perspective. The [color mosaic](#) is also a beautiful sight. Here are the [tiger stripes](#) up close. For a complete catalog of Enceladus images, go to [Cassini multimedia](#) page and select “Enceladus.” The [Planetary Photojournal](#) is the NASA repository for all solar system images. Simply click on [Saturn](#), then on [Enceladus](#).

Next headline on: [Solar System](#) • [Physics](#) • [Dating Methods](#)

Back to School, Front to Darwinism Debate 08/30/2005

The national debate about how to teach origins in public schools continues to roil. Here are some recent developments:

- [California](#): An AP story published by [ABC News](#) says that Christian schools are suing the University of California system for not accepting

mechanical engineering from a leading University. When I read the descriptions, see the pictures, and watch the movies of the inner workings of the cell, I'm absolutely amazed.... Thanks for bringing these amazing stories daily. Keep up the good work.
(an engineer in Virginia)

“I stumbled across your site several months ago and have been reading it practically daily. I enjoy the inter-links to previous material as well as the links to the quoted research. I've been in head-to-head debate with a materialist for over a year now. Evolution is just one of those debates. Your site is among others that have been a real help in expanding my understanding.”
(a software engineer in Pennsylvania)

“I was in the April 28, 2005 issue of *Nature* [see [04/27/2005](#) story] regarding the rise of intelligent design in the universities. It was through your website that I began my journey out of the crisis of faith which was mentioned in that article. It was an honor to see you all highlighting the article in *Nature*. Thank you for all you have done!
(Salvador Cordova, George Mason University)

“I shudder to think of the many ways in which you mislead readers, encouraging them to build a faith based on misunderstanding and ignorance. Why don't you allow people to have a faith that is grounded in a fuller understanding of the world?... Your website is a sham.” (a co-author of the paper reviewed in the [12/03/2003](#) entry who did not appreciate the unflattering commentary. This led to a cordial interchange, but he could not divorce his reasoning from the science vs. faith dichotomy, and resulted in an impasse over definitions – but, at least, a more mutually respectful dialogue. He never did explain how his paper supported Darwinian macroevolution. He just claimed evolution is a fact.)

“I absolutely love creation-evolution news. As a Finnish university student very interested in science, I frequent your site to find out about all the new science stuff that's been happening — you have such a knack for finding all this information! I have been able to stump evolutionists with knowledge gleaned from your site many times.”
(a student in Finland)

“I love your site and read it almost every day. I use it for my science class and 5th grade Sunday School class. I also challenge Middle Schoolers and High Schoolers to get on the site to check out articles against the baloney they are taught in school.”
(a teacher in Los Gatos, CA)

“I have spent quite a few hours at Creation Evolution Headlines in the past week or so going over every article in the archives. I thank you for such an informative and enjoyable site. I will be visiting often and will share this link with others.”
[Later] “I am back to May 2004 in the archives. I figured I should be farther back, but there is a ton of information to digest.”

their students. The [Association of Christian Schools International](#) says that the UC is discriminating against high school students who used textbooks critical of Darwinism. Colin Sharkey at [Campus Magazine](#) calls this a political, not scientific move by UC. Meanwhile, [UCLA](#) is seeking to hire a professional evolutionist; does such a person publish or perish, or evolve or perish?

- [South Carolina](#): State senator Mike Fair wants South Carolina students to hear the full range of scientific theories of origins, including intelligent design, according to [Insight Magazine](#) and [Agape Press](#).
- [Australia](#): [LifeSite](#) reports that a federal minister of education down under told reporters that “ID would have a place with Darwinism should parents or schools be interested.” According to the headline, opponents are furious. The article refers to the testimony of former evolutionist Dean Kenyon, whose futile search for chemical origins of life was highlighted in the film [Unlocking the Mystery of Life](#).
- [Iowa](#): A big ID row has broken out on the Iowa State campus, [Iowa State Daily](#). 120 faculty members have signed a statement rejecting intelligent design as science. The [Des Moines Register](#) fingers Guillermo Gonzalez, co-author of [The Privileged Planet](#), as the center of the controversy. When author Rekha Basu claimed that, “ISU can’t afford to let its curriculum be polluted this way,” Mike Gene, editorializing on [Telic Thoughts](#) feared this may lead to a McCarthyesque loyalty oath for faculty members.

This set of articles most surely represents the tip of a large iceberg stretching across the United States and the world.

If science were really so threatened by a few people using the D word design, the Darwinists wouldn’t have to defend their pet story with loyalty oaths, signed statements, and discrimination. They could solve their little conflict with a little evidence. That’s where the wise advise aiming our eyes.

Next headline on: [Education](#) • [Darwinism and Evolution](#) • [Intelligent Design](#)

Do You Belong in the Zoo? 08/29/2005

People are gawking at people in the London Zoo, each probably wondering what side of the cage they belong on. In one of the primate exhibits, eight scantily clad white people are on display, reports AP (see [MSNBC](#) and [Yahoo](#)). Wearing fig leaves pinned onto their swimsuits, they play, they scratch, they groom each other, they wave to the onlookers. The idea is to show that humans are nothing special, but just like other animals. Unlike the apes and chimpanzees in the other primate cages, however, the humans get to go home at night.

The stunt is drawing visitors who had never visited the zoo. Some viewers were disappointed to find the humans wearing clothes; didn’t fig leaves come from the Genesis tradition? they wondered. Children, confused by the message of the display, have been overheard asking, “Why are there people in there?” An apocryphal story has one of the chimpanzees asking, “Am I my keeper’s brother?”

At least they’re using white people this time (see articles by [Carl Wieland](#) and [Jerry Bergman](#)). Mark Looy at [Answers in Genesis](#) couldn’t keep silence any longer, especially when he had a Londoner on staff, Dr. Monty White, to interpret the zoo’s actions in light of Darwinian theory.

The Darwin Party leaders need to give the rest of us a demonstration. They should get into the cage and show us how to act like a primate – where to scratch, how to shriek and club each

(a computer game designer in Colorado)

“The IDEA Center also highly recommends visiting [Creation-Evolution Headlines](#)... the most expansive and clearly written origins news website on the internet” (endorsement on [Intelligent Design and Evolution Awareness Center](#))

“Hey Friends, Check out this site: [www.creationsafaris.com](#). This is a fantastic resource for the whole family.... a fantastic reference library with summaries, commentaries and great links that are added to daily—archives go back five years.” (a reader who found us in Georgia)

“I just wanted to drop you a note telling you that at [www.BornAgainRadio.com](#), I’ve added a link to your excellent Creation-Evolution news site.” (a radio announcer)

“I cannot understand why anyone would invest so much time and effort to a website of sophistry and casuistry. Why twist Christian apology into an illogic pretzel to placate your intellect? Isn’t it easier to admit that your faith has no basis - - hence, ‘faith’. It would be extricate [sic] yourself from intellectual dishonesty -- and from bearing false witness.” Sincerely, Rev. [name withheld] (an ex-Catholic, “apostate Christian” Natural/Scientific pantheist)

“Just wanted to let you folks know that we are consistent readers and truly appreciate the job you are doing. God bless you all this coming New Year.” (from two prominent creation researchers/writers in Oregon)

“Thanks so much for your site! It is brain candy!” (a reader in North Carolina)

“I Love your site – probably a little too much. I enjoy the commentary and the links to the original articles.” (a civil engineer in New York)

“I’ve had your Creation/Evolution Headlines site on my favourites list for 18 months now, and I can truthfully say that it’s one of the best on the Internet, and I check in several times a week. The constant stream of new information on such a variety of science issues should impress anyone, but the rigorous and humorous way that every thought is taken captive is inspiring. I’m pleased that some Christians, and indeed, some webmasters, are devoting themselves to producing real content that leaves the reader in a better state than when they found him.” (a community safety manager in England)

“I really appreciate the effort that you are making to provide the public with information about the problems with the General Theory of Evolution. It gives me ammunition when I discuss evolution in my classroom. I am tired of the evolutionary dogma. I wish that more people would stand up against such ridiculous beliefs.” (a science teacher in Alabama)

other, how to draw figures of prey on the wall, and how to make rock music. After we lock the door and take the key, we'll promise to take good care of them (feed them all the bananas they want, etc.) as we laugh all the way to the school board meeting.

Next headline on: [Darwinism](#) • [Dumb Ideas](#)

Looking for Ethical Alternatives to Embryonic Stem Cells

08/24/2005 —

Pro-life advocates perked up their ears at the announcement of a new method that can produce stem cells without destroying embryos. [National Geographic News](#) and [MSNBC News](#) talked about the method, which uses skin cells and "reprograms" them to act like embryonic stem cells. [Religion Journal](#) thinks the ethical debate over stem cells may be over.

This story illustrates the need for conservatives who respect the sanctity of life to keep boundaries around maverick scientists motivated by dollars more than ethics. Researchers would not be looking for alternatives to grinding up human embryos if it weren't that there were enough people outraged at the ethical malfeasance of killing one life to save others. The selfish motives of the stem-cell pushers became evident when some reporters showed them worrying that this discovery might reduce funding for embryonic stem cell research.

It's too early to tell whether this or other alternative methods for breeding the totipotent cells will make embryonic stem cell research obsolete and eliminate the ethical concerns; even if it does, there are many more moral issues besides this in the era of synthetic biology. Keep informed, and keep the heat on.

Next headline on: [Health](#) • [Politics and Ethics](#)

Darwin's Finches Evolve – Back and Forth 08/24/2005 —

What's new on the Galápagos? For those needing an update on Darwin's famous finches, the researchers who have spent the most time studying them – Peter and Mary Grant (Princeton) – wrote a Quick Guide in *Current Biology*¹ in question-and-answer format. We'll skip the introductory material about how the birds got named after Darwin, and what makes them special in the history of evolutionary thought, to see if the Grants have any evidence that they have, indeed, evolved. The key question is: "Are Darwin's finches still evolving?"

An often asked question may be phrased as follows: **what can be said about evolution if it all happened in the past**, for surely understanding where our biological diversity came from is then a **mixture of scientific inference and inspired guesswork, almost impossible to verify? Imperceptibly slow evolution encourages such skepticism.** In the *Origin of Species*, Darwin wrote "We see nothing of these slow changes in progress until the hand of time has marked the lapse of ages".

In fact, numerous studies **have demonstrated evolution in action**, and the study of finches on the island of **Daphne** has **contributed significantly**. When the **environment** changes, for example when a severe and **prolonged drought** occurs, finches die in large numbers, not randomly but size-selectively. Large finches with **large beaks** have an **advantage** over small birds, and survive better, because they are able to crack the large seeds that are relatively common after almost all the small seeds have been consumed. When they breed the next year they produce offspring with large beaks because **beak size is heritable**.

This change from one generation to the next is **evolution** [sic].

"If you choose to hold an opinion that flies in the face of every piece of evidence collected so far, you cannot be suprised [sic] when people dismiss your views."
(a "former Christian" software distributor, location not disclosed)

"...the Creation Headlines is the best. Visiting your site... is a standard part of my startup procedures every morning."
(a retired Air Force Chaplain)

"I LOVE your site and respect the time and work you put into it. I read the latest just about EVERY night before bed and send selection[s] out to others and tell others about it. I thank you very much and keep up the good work (and humor)."
(a USF grad in biology)

"Answering your invitation for thoughts on your site is not difficult because of the excellent commentary I find. Because of the breadth and depth of erudition apparent in the commentaries, I hope I'm not being presumptuous in suspecting the existence of contributions from a 'Truth Underground' comprised of dissident college faculty, teachers, scientists, and engineers. If that's not the case, then it is surely a potential only waiting to be realized. Regardless, I remain in awe of the care taken in decomposing the evolutionary cant that bombards us from the specialist as well as popular press."
(a mathematician/physicist in Arizona)

"I'm from Quebec, Canada. I have studied in 'pure sciences' and after in actuarial mathematics. I'm visiting this site 3-4 times in a week. I'm learning a lot and this site gives me the opportunity to realize that this is a good time to be a creationist!"
(a French Canadian reader)

"I LOVE your Creation Safari site, and the Baloney Detector material. OUTSTANDING JOB!!!!"
(a reader in the Air Force)

"You have a unique position in the Origins community. Congratulations on the best current affairs news source on the origins net. You may be able to write fast but your logic is fun to work through."
(a pediatrician in California)

"Visit your site almost daily and find it very informative, educational and inspiring."
(a reader in western Canada)

"I wish to thank you for the information you extend every day on your site. It is truly a blessing!"
(a reader in North Carolina)

"I really appreciate your efforts in posting to this website. I find it an incredibly useful way to keep up with recent research (I also check science news daily) and also to research particular topics."
(an IT consultant from Brisbane, Australia)

"I would just like to say very good job with the work done here, very comprehensive. I check your site every day. It's great to see *real* science directly on the front lines, toe to toe with the pseudoscience that's

Some time later, the **environment changes again**, food supply changes, the advantage shifts **toward finches with small beaks** and correspondingly the **direction of evolution changes**. The **back and forth process may have a net trajectory** toward large or small size, and this is where **inference enters the interpretation**, because **persistent directional changes in structures such as bird beaks are not likely to occur so rapidly that they can be documented in a few years**. (Emphasis added in all quotes.)

Moreover, they say when asked about finch genomics, the genes of the finches are dynamic, though the evidence is only preliminary:

The **molecular analysis** of finch beaks has **only just begun**. In addition to this functional genetic study, molecular markers in the nuclear and mitochondrial genome have been used **to estimate the phylogeny** of the finches. **With some exceptions** they support the traditional grouping of the species on the basis of their plumage and beak characteristics. Molecular markers have also been used to track the **exchange of genes between species that interbreed**, albeit rarely, and the finding is **dramatic** [sic]. They show a pair of species on Daphne in a state of flux, at present **converging genetically and morphologically**, having diverged strongly in the past. This **nicely captures** [sic] the **evolutionary dynamism** that Darwin's finches display to an unusual degree.

Yet if they diverge then converge back to what they were before, is that really evolution? The Quick Guide moves on, leaving that question unasked and unanswered.

¹Peter R. Grant and B. Rosemary Grant, "Quick Guide: Darwin's Finches," *Current Biology*, Volume 15, Issue 16, 23 August 2005, Pages R614-R615.

There you have it: the world's leading authorities on the beaks that made Charlie famous, and they don't add a thing to what young-earth creationists already believe. The Grants merely repeated what is already admitted by intelligent-design researchers in the films *Unlocking the Mystery of Life* and *Icons of Evolution*; any observed changes are mere oscillations about a mean. These poor devoted people have measured beaks for over 30 years and have not found any persistent directional changes – nor could they be expected to in one human lifetime. They even admit that today the birds remain interfertile and so have not really undergone speciation after however long they have lived on these islands. Yet they expect us to think that it is a scientifically sound *inference* to *extrapolate* their data, which, in evolutionary terms, constitute noise, into long-term directional trends.

Inference, interpretation based on presuppositions – that's what Ken Ham and the most ardent creationists accuse the Darwinists of engaging in without scientific rigor. We all have the same *data*, but the *interpretation* depends on your world view and how much you adore Charlie.

David Berlinski chuckles at the Darwinistic boasting over this most famous of examples of evolution. It doesn't even reach the level of anecdote, he said in the film *Icons of Evolution*. OK, finch beaks adapt to drought conditions, and adapt back when the rains return (the changes are submillimeter differences, by the way). Fine. Berlinski continues: we're going to need a lot more than that

mindlessly spewed from the 'prestigious' science journals." (a biology student in Illinois)

"I've been checking in for a long time but thought I'd leave you a note, this time. Your writing on these complex topics is insightful, informative with just the right amount of humor. I appreciate the hard work that goes into monitoring the research from so many sources and then writing intelligently about them." (an investment banker in California)

"Keep up the great work. You are giving a whole army of Christians plenty of ammunition to come out of the closet (everyone else has). Most of us are not scientists, but most of the people we talk to are not scientists either, just ordinary people who have been fed baloney for years and years." (a reader in Arizona)

"Keep up the outstanding work! You guys really ARE making a difference!" (a reader in Texas)

"I wholeheartedly agree with you when you say that 'science' is not hostile towards 'religion'. It is the dogmatically religious that are unwaveringly hostile towards any kind of science which threatens their dearly-held precepts. 'Science' (real, open-minded science) is not interested in theological navel-gazing." (anonymous)

Note: Please supply your name and location when writing in. Anonymous attacks only make one look foolish and cowardly, and will not normally be printed. This one was shown to display a bad example.

"I appreciate reading your site every day. It is a great way to keep up on not just the new research being done, but to also keep abreast of the evolving debate about evolution (Pun intended).... I find it an incredibly useful way to keep up with recent research (I also check science news daily) and also to research particular topics." (an IT consultant in Brisbane, Australia)

"I love your website." (a student at a state university who used CEH when writing for the campus newsletter)

"....when you claim great uncertainty for issues that are fairly well resolved you damage your already questionable credibility. I'm sure your audience loves your ranting, but if you know as much about biochemistry, geology, astronomy, and the other fields you skewer, as you do about ornithology, you are spreading heat, not light." (a professor of ornithology at a state university, responding to the [09/10/2002](#) headline)

"I wanted to let you know I appreciate your headline news style of exposing the follies of evolutionism.... Your style gives us constant, up-to-date reminders that over and over again, the Bible creation account is vindicated and the evolutionary fables are refuted." (a reader, location unknown)

to be convinced that all the complexity of life could be explained by Darwin's hypothesis of natural selection.

Next headline on: [Birds](#) • [Darwinism and Evolutionary Theory](#)

Your Brain Has Perfect Pitch 08/23/2005

Scientists have a knack for asking questions about things most of us take for granted. "The whole orchestra tunes up to an A note from the oboe – but how do our brains tell that all the different sounds are the same pitch?" asks Robert J. Zatorre in *Nature*.¹ This is a puzzling question to neurologists. There's more, as Zatorre illustrates with a Disney story:

As Pythagoras knew, if you pluck a string, it will vibrate in its entire extent, as well as in halves, thirds and so on, and each of those vibrational modes will result in a separate harmonic frequency. Yet we **usually perceive the pitch as corresponding to the lowest of these, which is the fundamental**. For a simple demonstration of the 'missing fundamental' effect, pick up a phone. Most **telephone lines cut off the lower frequencies**, resulting in a slightly tinny sound, yet the fundamental pitch does not change; a male voice does not sound like Mickey Mouse. **The brain seems to figure out the missing pitch.** (Emphasis added in all quotes.)

Is this just learned behavior, or what? Apparently not. Researchers working with marmosets have found neurons that are pitch-sensitive:

Bendor and Wang studied the auditory cortex (the region of the brain that enables perception of sound) in the marmoset monkey. They show that there are **neurons** in this region that **respond in essentially the same way to a variety of sounds** that all have the **same fundamental** but do not share any frequencies. For example, a neuron that responds to 200 hertz also responds to the combination of 800, 1,000, and 1,200 hertz because all correspond to the same fundamental. **This effect is unusual** because neurons usually respond only within their receptive field, which is typically a narrow range of frequencies. The marmoset neurons, however, responded not only to frequencies in their receptive fields, but also when there was no frequency within the receptive field but the other frequencies in the stimulus were harmonically related to the missing one. This property **makes psychologists happy**, because it provides **evidence (if not yet a mechanism) for perceptual constancy**. These **neurons respond to an abstract property – pitch – derived from, but not identical to, physical sound features**. Presumably, therefore, it is **thanks to such neurons** that we can **follow a tune as the instruments change**.

That leads to an evolutionary follow-up question, which Zatorre attempts to answer:

One might wonder **why marmosets need such a system**, given that **they don't spend much time listening to iPods**. But periodic sounds are important in the natural environment because they are almost exclusively produced by other animals, and so **pitch is a good cue to segregate these sounds from background noise**. Marmosets are highly vocal creatures, and the **development [sic] of pitch-sensitive neurons** would also be central to communication. **From an evolutionary perspective**, these

"You have a knack of extracting the gist of a technical paper, and digesting it into understandable terms."

(a nuclear physicist from Lawrence Livermore Labs who worked on the Manhattan Project)

"After spending MORE time than I really had available going thru your MANY references I want to let you know how much I appreciate the effort you have put forth. The information is properly documented, and coming from recognized scientific sources is doubly valuable. Your explanatory comments and sidebar quotations also add GREATLY to your overall effectiveness as they 1) provide an immediate interpretive starting point and 2) maintaining the reader's interest."

(a reader in Michigan)

"I am a huge fan of the site, and check daily for updates."

(reader location and occupation unknown)

"I just wanted to take a minute to personally thank-you and let you know that you guys are providing an invaluable service! We check your Web site weekly (if not daily) to make sure we have the latest information in the creation/evolution controversy. Please know that your diligence and perseverance to teach the Truth have not gone unnoticed. Keep up the great work!"

(a PhD scientist involved in origins research)

"You've got a very useful and informative Web site going. The many readers who visit your site regularly realize that it requires considerable effort to maintain the quality level and to keep the reviews current.... I hope you can continue your excellent Web pages. I have recommended them highly to others."

(a reader, location and occupation unknown)

"As an apprentice apologist, I can always find an article that will spark a 'spirited' debate. Keep 'em coming! ? The Truth will prevail."

(a reader, location and occupation unknown)

"Thanks for your web page and work. I try to drop by at least once a week and read what you have. I'm a Christian that is interested in science (I'm a mechanical engineer) and I find you topics interesting and helpful. I enjoy your lessons and insights on Baloney Detection."

(a year later):

"I read your site 2 to 3 times a week; which I've probably done for a couple of years. I enjoy it for the interesting content, the logical arguments, what I can learn about biology/science, and your pointed commentary."

(a production designer in Kentucky)

"I look up CREV headlines every day. It is a wonderful source of information and encouragement to me.... Your gift of discerning the fallacies in evolutionists interpretation of scientific evidence is very helpful and educational for me. Please keep it up. Your website is the best I know of."

abilities could be seen as **precursors to human pitch perception**, which has led to **our unique development of music and is similarly crucial for speech**.

That's that for now; he quickly changes the subject: "Now that we know that there are pitch-sensitive neural units, we have to discover how they work." He has a long list of unanswered questions: How does the ear keep the information intact through the transformations between eardrum and cochlea? How does the brain extract details from the overall fabric of sound? What are the inputs to these pitch-sensitive neurons? – are they hierarchical, or built up from multiple inputs from other structures in the brain? Do inputs from the higher cognitive regions of the brain participate? Are these neuronal properties hard-wired or learned? The list of answers is shorter: we don't know.

¹Robert J. Zatorre, "Neuroscience: Finding the missing fundamental," *Nature* 436, 1093-1094 (25 August 2005) | doi: 10.1038/4361093a.

This article almost earned a Dumb award for its useless evolutionary speculations. Zatorre committed the *plostrum ante equum* fallacy (cart before the horse), assuming that necessity was a sufficient mother of invention. Aside from the empty evolutionary fluff, though, the article underscored a fascinating aspect of hearing that merely hints at the engineering necessary to make it work. Music doesn't make evolutionary sense because it is a gift of God. If Bach appreciated that fact, how much more so should modern anatomists, physiologists and neurologists.

Next headline on: [Human Body](#) • [Physics](#) • [Amazing Stories](#)

Origin of Life: How Dry I Am? 08/23/2005

Stephen Benner (U of Florida) has stopped looking for life in water. A researcher into the evolutionary origin of life, he understands that "water is a terrible solvent for life" – not life as we know it today, he means, but life at the beginning. This sounds strange, considering most astrobiologists believe in a "follow the water" approach to finding life in space. In *Nature*,¹ he explained:

Benner points out that water is generally not a good solvent for doing organic chemistry – which is, in the end, what life is all about. For one thing, water is **rather reactive, tending to split apart the bonds** that link the building blocks of biomolecules together. It **readily breaks peptide bonds**, for example, as well as many of the **bonds in nucleic acids**, such as RNA. "**The structure of RNA screams 'I did not arise in water!'**" Benner asserts. He says that in about four out of five cases, synthetic organic chemists will avoid using water as a solvent. (Emphasis added in all quotes.)

Benner shared his ideas at a conference in Italy earlier this year. Philip Ball investigated his ideas in the article, but puzzled over what Benner said and what we know about how life utilizes water:

But of course organic chemists aren't usually trying to create life. Water has many **properties** that seem **indispensable** for the functioning of proteins and cells. It is an **excellent solvent** for ions, for example – crucial for **nerve signalling, enzymatic processes, biomineralization** and the **behaviour of DNA**. It is also a **master of weak intermolecular interactions** such as hydrogen bonds and hydrophobic forces. The latter play a **central role in protein folding** and protein-protein

(a Presbyterian minister in New South Wales, Australia)

"I've written to you before, but just wanted to say again how much I appreciate your site and all the work you put into it. I check it almost every day and often share the contents (and web address) with lists on which I participate. I don't know how you do all that you do, but I am grateful for your energy and knowledge." (a prominent creationist author)

"I am new to your site, but I love it! Thanks for updating it with such cool information." (a home schooler)

"I love your site.... Visit every day hoping for another of your brilliant demolitions of the foolish just-so stories of those who think themselves wise." (a reader from Southern California)

"I love to read your website and am disappointed when there is nothing new to read. Thanks for all your hard work." (a missionary in Japan)

"I visit your site daily for the latest news from science journals and other media, and enjoy your commentary immensely. I consider your web site to be the most valuable, timely and relevant creation-oriented site on the internet." (a reader from Ontario, Canada)

"Keep up the good work! I thoroughly enjoy your site." (a reader in Texas)

"Thanks for keeping this fantastic web site going. It is very informative and up-to-date with current news including incisive insight." (a reader in North Carolina)

"Great site! For all the Baloney Detector is impressive and a great tool in debunking wishful thinking theories." (a reader in the Netherlands)

"Just wanted to let you know, your work is having quite an impact. For example, major postings on your site are being circulated among the Intelligent Design members...." (a PhD organic chemist)

"It's like 'opening a can of worms' ... I love to click all the related links and read your comments and the links to other websites, but this usually makes me late for something else. But it's ALWAYS well worth it!!" (a leader of a creation group)

"I am a regular visitor to your website ... I am impressed by the range of scientific disciplines your articles address. I appreciate your insightful dissection of the often unwarranted conclusions evolutionists infer from the data... Being a medical doctor, I particularly relish the technical detail you frequently include in the discussion living systems and processes. Your website continually reinforces my conviction that if an unbiased observer seeks a reason for the existence of life then Intelligent Design will be the unavoidable conclusion." (a medical doctor)

interactions, whereas the former often act as **bridges between protein binding sites** and their substrates. And water's **ability to absorb and lose heat** without undergoing a large temperature change provides **thermal cushioning**, shielding cells and organisms from wild temperature swings.

No other known liquid combines all of these properties.

Because water is an enemy at the origin of life but an indispensable friend for sustaining it, chemical evolutionists have a conundrum on their hands. As an escape, they are asking "what if" questions about whether life could have arisen in other solvents.

Asking such 'what if' questions might seem **strange to biologists and chemists**, but it is **far more common in cosmology or physics** [see [08/16/2005](#)]. For cosmologists, the **physical Universe seems to be precariously fine-tuned to make life possible**. For example, the **fine-structure constant**, which determines the strength of electromagnetic interactions, is **not fixed by any known fundamental theory**; and yet **if it was ten times larger, stable atoms could not exist....**

He [John Finney, University College, London] adds that "the **fine-tuning argument** with respect to **water** is a **far more complex problem** than that in astrophysics. Without knowing what aspects of water are important, I suspect we are doing **little more than speculating.**"

Others at the conference thought Benner was putting the cart before the horse: "life on Earth is adapted to water rather than the other way round," they agreed. Benner, meanwhile, beset by the problems with RNA and proteins in water, is going to investigate uncharted territory: dry, frozen worlds with liquid methane, perhaps, like Titan ([08/09/2005](#), [01/21/2005](#)), or ones of his own making:

Benner is participating in a US National Academies panel **funded by NASA** that is **looking at possible alternative chemistries for life**, and which he hopes will **identify research directions** that **funding agencies** can pursue. He **believes** that researchers should **aim high** – to **create life forms** that do not reproduce the chemistry that is found on Earth. In other words, if we can't easily get to other worlds, we should build them here.

¹Philip Ball, "Water and Life: Seeking the Solution," *Nature*, 436, 1084-1085 (25 August 2005) | doi: 10.1038/4361084a.

Steven Benner should know better. He knows more than most evolutionists how many and intractable are the problems with chemical evolution; the problems are so bad, in fact, that he joked that they are almost enough to make one consider becoming a creationist (see [11/05/2005](#) entry). Now that is *really* bad to a Darwinist! Nothing could be worse.

Articles like this are useful to show that creationists and intelligent design advocates are not making things up when they talk about the fine-tuning of the laws of physics and the impossibility of getting life by chance. Here you have it in the evolutionists' own words.

"A church member asked me what I thought was the best creation web site. I told him [CreationSafaris.com](#)." (a PhD geologist)

"I love your site... I check it every day for interesting information. It was hard at first to believe in Genesis fully, but now I feel more confident about the mistakes of humankind and that all their reasoning amounts to nothing in light of a living God." (a college grad)

"Thank you so much for the interesting science links and comments on your creation evolution headlines page ... it is very informative." (a reader from Scottsdale, AZ)

"I still visit your site almost every day, and really enjoy it. Great job!!! (I also recommend it to many, many students.) (an educational consultant)

"I like what I see—very much. I really appreciate a decent, calm and scholarly approach to the whole issue... Thanks ... for this fabulous endeavor—it's superb!"

"It is refreshing to read your comments. You have a knack to get to the heart of the matter." (a reader in the Air Force).

"Love your website. It has well thought out structure and will help many through these complex issues. I especially love the [Baloney Detector](#)." (a scientist).

"I believe this is one of the best sites on the Internet. I really like your side-bar of '[truisms](#).' Yogi [Berra] is absolutely correct. If I were a man of wealth, I would support you financially." (a registered nurse in Alabama, who found us on [TruthCast.com](#).)

"WOW. Unbelievable.... My question is, do you sleep? ... I'm utterly impressed by your page which represents untold amounts of time and energy as well as your faith." (a mountain man in Alaska).

"Just wanted to say that I recently ran across your web site featuring science headlines and your commentary and find it to be A++++, superb, a 10, a homerun – I run out of superlatives to describe it! ... You can be sure I will visit your site often – daily when possible – to gain the latest information to use in my speaking engagements. I'll also do my part to help publicize your site among college students. Keep up the good work. Your material is appreciated and used." (a college campus minister)

*Featured Creation
Scientist for August*

There is nothing to show for a century of speculation – only futureware.

Cynics will undoubtedly follow not the water, but the money. Chemical evolution has no real use for water, methane, or any other solvent, really; the thing that lubricates it is funding. It's what gave the charlatan Sidney Fox his fifteen years of fame (01/07/2005), and is keeping Astrobiology the slickest new drainpipe for NASA dollars. Without funding, the Darwinian storytelling enterprise (12/22/2003) would dry up, and the bums would have to work in the real world. Meanwhile, it's your tax dollars at work.

Next headline on: [Origin of Life](#) • [Physics and Chemistry](#)

Paleoanthropology: Start Over? 08/22/2005

The September issue of [National Geographic](#), featuring the African continent, has arrived in homes. On page 1, Joel Achenbach of the Washington Post wrote about the quest for early man, asking, "Are we looking for bones in all the right places?" The bulk of the article describes the "messy" story of human origins. It used to be clean-cut, he said, but no longer:

Scientists are good at finding **logical** patterns and turning data into a **coherent** narrative. **But the study of human origins is tricky:** The bones tell a complicated story. The cast of characters keeps growing. **The plot keeps thickening.** It's a **heck** of a tale, still unfolding.

More than half a century ago the great biologist Ernst Mayr surveyed the field of paleoanthropology and saw all sorts of diverse characters: Peking man, Java man, and *Homo erectus*. He **figured out** [sic] that they were all the same thing and **helped bring coherence** to a **rambling tale**. By the **1960s** the **textbook version** of human origins **looked pretty tidy**: Humans evolved in Africa; *Homo habilis* **begat** *Homo erectus*, who **begat** *Homo sapiens*. (The Neandertals were sort of a fly in the ointment.) **Today the field has again become a rather glorious mess.** (Emphasis added in all quotes.)

That represents the bulk of the article: the simple picture is gone, we don't know who begat whom, we have no fossils of chimpanzees, the family tree is full of dead ends, and we may be trying too hard to tell a story from too few bones. Achenbach quotes Dan Lieberman of Harvard: "We're **not doing a very good job of being honest** about what we don't know. Sometimes I think we're **trying to squeeze too much blood out of these stones.**"

Achenbach also contrasts the study of human evolution with the classical hard sciences:

Earth doesn't yield a perfect database. Still, it's **our scientific impulse to impose parsimonious explanations on complex problems** in the same way that [Newton](#) realized that the fall of the apple and the motion of the planets were governed by the same simple force called gravity. **But the process of evolution can't be observed like the fall of an apple.** Life—despite all the efforts of modern science—is **messy**.

One might be tempted to conclude, therefore, that the field is open to alternative explanations. Why, then, does Achenbach put this statement in the middle of his article? "The **central fact** of human evolution **is a given**—humans descended from a primate [sic] that lived in Africa six or seven million years [sic] ago—and **those who would doubt evolution are arguing against the entire**



John Napier
1550 - 1617

Our summer of mathematicians continues!

Who was the first prominent scientist from the British Isles? Who, in the early 17th century, stands in the line of pioneers of calculating machines? Who doubled the productivity of early scientists? Who according to David Hume was one of the greatest men Scotland ever produced, yet would have argued against Hume's skepticism? A man who studied the Bible seriously, and fervently defended Biblical Christianity against error. A man whose most famous discovery would have profound impact on the sciences, yet considered his Christian faith primary and his mathematics secondary. A man most students never heard of, John Napier.

John Napier (the most common, but probably inaccurate, spelling of his name) was born of a wealthy landowner in Scotland. The year he entered St. Andrew's University at age 13, his mother died. At the university, and later in studies in Europe, he learned higher mathematics and classical literature, but he first became passionately interested in theology at St. Andrews. After his marriage in 1572, he and his bride moved into a castle on the Merchiston estate when it was completed in 1574. His cleverness as an inventor became apparent as he managed his estates. He found ways to increase productivity of the soil using scientific approaches to fertilization. His wife died in their seventh anniversary year; a few years later he remarried. He had two sons, one from each

enterprise of science.” The basics are established, he claims; it’s only some key details that are unknown.

Is it any wonder why Achenbach wins *Stupid Evolution Quote of the Week*? Look at what he did. He demolished everything most of us were taught as *evolutionary fact* years ago. He admitted that the whole picture is a mess of disconnected, confusing pieces. He admitted that no one can make sense of it. He admitted that paleoanthropology is not in the same ballpark as Newton’s hard science, and why?—because “the process of evolution **can’t be observed** like the fall of an apple.” There aren’t enough ape bones, there aren’t enough human bones, and there aren’t enough bones of anything in between that is not controversial. On top of all that, we might even just be imposing our own preconceptions on the data! He quotes someone who casts doubt on the honesty of paleoanthropologists. That seasoned veteran of the “science” of paleoanthropology believes the researchers are trying to squeeze too much blood out of their bones.

In short, Achenbach has just shorn paleoanthropology of any claim to legitimate science. Yet in the midst of this doleful tale of ignorance, he commits the most egregious logical fallacy imaginable. (1) First, he **bluffs** with his made-up story that humans evolved out of Africa six or seven million years ago – how does he know? Did he *observe* this? On which bones did he base this belief? Ignoring the fact that the out-of-Africa view is controversial, even if the leading candidate for the “thickening plot,” he instructs us that this belief is not open to question: “the central fact [sic] of human evolution [sic] **is a given**.” (2) Second, like a stingy hyena unable to eat but snapping angrily at anyone approaching the carcass of a dead science, he says, “those who would **doubt evolution are arguing against the entire enterprise of science.**” So creationists, keep out; this is *our* storytelling game, he implies. Fine; if your view of science is bluffing, ignorance, open-ended storytelling and authoritarianism, you can have it.

The plot keeps thickening, he says. It’s the enterprise of science, he says. The Science Restaurant used to be a nice place to hang out before Chef Charlie swindled the owners and took over. He replaced everything on the menu with the only thing he knew how to cook, his original Thicken Plot Pie, which has become so thick now it should only be taken with a strong laxative. It’s understandable why Achenbach, moaning in discomfort, is envious of Newton and his—shall we say it?—“regularity.”

Next headline on: [Early Man](#) • [Evolution](#) • [Dumb Stories](#)

I.D. vs. Evolution Rhetoric Continues Unabated 08/22/2005, updated 08/24/2005

The surge in articles and editorials about intelligent design vs. evolution, prompted by President Bush’s remarks ([08/13/2005](#)) often seems to track the political philosophy of the person or group: Republican vs. Democrat, conservative vs. liberal – but not always. Recent salvos:

- [Irish Scream](#): Bill O’Reilly had Dr. Richard Sternberg on his O’Reilly Factor show on [Fox News](#) Aug. 24 (see [Washington Post](#) background story and [Discovery Institute](#) fact sheet). O’Reilly was clearly animated over the “brutal” tactics of the “fascist” anticreationists as Sternberg described how he was treated at the Smithsonian for allowing an I.D. paper to be published. With incredulity expressed in two-hand gestures, O’Reilly asked “*Why?*” they were doing this to him.

marriage.

Napier was born the year when the Scottish Reformation commenced, 1550. During Napier’s lifetime, disputes between Protestants and Catholics threatened to split the country in two. The controversy was not merely intellectual, because the Catholic Church had made an alliance with the Spanish in 1593 to invade Britain with the goal of conquest. Napier, fiercely committed to Scriptural authority, determined to defend Scotland from the errors of papistry. On three occasions he accompanied deputations to make their case before the king. On his own initiative, he also wrote a commentary on Revelation called *A Plaine Discourse on the Whole Revelation of St. John* in which he interpreted the harlot that sits on seven hills (Rev. 17:9) as Rome, the seat of the Catholic pope. A sense of his zeal can be gained from his preface, where he explains his response to a sermon on the Apocalypse:

... I was so mooved in admiration, against the blindnes of Papists, that could not most evidently see their seven hilled citie Rome, painted out there so lively by Saint John, as the mother of all spiritual whoredome, that not onely bursted I out in continual reasoning against my said familiar, but also from thenceforth, I determined with my selfe (by the assistance of Gods spirit) to employ my studie and diligence to search out the remanent mysteries of that holy Book: as to this houre (praised be the Lorde) I have bin doing at al such times as conveniently I might have occasion.

He wrote humbly as one who did not feel adequate to convey such important truths, yet was compelled by the urgency to “prevent the rising againe of Antichristian darknes within this Iland, then to prolong the time in painting of language.” His commentary, which took years of study, was widely

- **Concerned Women for Human Events:** The debate over ID was discussed both by [Concerned Women for America](#) and [Human Events](#), which reprinted David Limbaugh's essay (see below).
- **Larry King Live:** Larry King moderated a heated discussion between pro-ID panelists John MacArthur, Jay Richards and Senator Sam Brownback, and anti-ID panelists Barbara Forrest, Depak Chopra and Senator Christopher Shays. Larry King's opening questions seemed off point. The first thing out of his mouth was asking MacArthur if he believed the earth was only 5000 years old, and then asking Forrest if we came from monkeys, why there are still monkeys. Both respondents seemed to wonder what those questions had to do with the item under discussion. The anti-ID side seemed the most intent on making their case that ID isn't science, while MacArthur wondered why evolutionists seem to be in such a panic over the obvious evidence for design. Jay Richards stuck to his guns that the Discovery Institute does not advocate mandating ID, despite Forrest's persistent attempts to prove that ID people are religiously motivated. Chopra, who accepts ID as a source of consciousness, was more vicious against MacArthur than the evolutionists. Senator Brownback calmly asked that the nation engage in a vigorous discussion over evolution, bringing the best arguments together. Let's identify facts that are facts and theories that are theories, he repeated.
- **Frist in Line:** Senator Bill Frist (R-Tenn), though recently breaking ranks with the President over stem cell research, announced his agreement with Bush over intelligent design in an AP story (see [MSNBC News](#)). Frist has an M.D. from Harvard Medical School. He said that exposing children to both views "doesn't force any particular theory on anyone. I think in a pluralistic society that is the fairest way to go about education and training people for the future." The article mentions a voice from the other political persuasion: Democratic Party Chairman Howard Dean called President Bush "anti-science" over his remarks.
- **OhIDo:** Governor Bob Taft of Ohio, a Republican, threw his hat into the ID ring, according to the [Chillicothe Gazette](#). He's not sure what intelligent design means, but at least feels students ought to be able to hear criticisms of Darwinian evolution. The "teach the controversy" approach will provide the best compromise, he feels, between opponents who have differing ideas of how evolution should be taught.
- **Dykstra's Law:** [David Limbaugh](#) answered the critics who called him an idiot for [this editorial](#), proving that everyone is someone else's weirdo.
- **Hidden Motives:** Why did [Science](#) reproduce the following quote without comment? Utah state senator D. Chris Buttars, in a [USA Today](#) editorial August 9, said, "The trouble with the 'missing link' is that it is still missing! ... The theory of evolution ... has more holes in it than a crocheted bathtub."
- **Who Speaks for Space?** In an ostensibly nonpartisan editorial on [Space.Com](#), SETI Institute Director of Education and Public Outreach Edna DeVore spoke out against the President's remarks. Though written as the statement of a scientific rather than political organization, and quoting the positions of scientific societies, DeVore nonetheless employed arguments common to liberals: "Teaching creationism is in violation [sic] of the separation of church and state, and has been ruled illegal [sic] by the US Supreme Court in several cases." DeVore mentions in passing that Bush's remarks have generated about 120 reactions per day in print since he spoke in favor of intelligent design August 2.
- **Name-Calling:** William Safire in the [New York Times](#) looked at the scorn heaped on "creationism" in a brief and simplistic history of anti-evolutionism, and quoted several vehement anti-ID polemics, mostly liberal but with one conservative joining the scorn fest. Noting the new attack word "neo-creo" invented by anticreationist Philip Kitcher to

published in the British Isles and on the continent, and has been called, for Scotland, "the first published original work relating to theological interpretation, and is quite without a predecessor in its own field."

Napier is best known as the inventor of logarithms in 1614. His discovery has been called second only to Newton's *Principia* in importance to the foundational history of British science. Logarithms (a term coined by Napier) provided a shortcut to calculation, replacing tedious multiplications and divisions with simpler additions and subtractions. It was not an accidental discovery. Napier set his mind to find a way to make the mathematician's life easier, because the effort required for long calculations made the work tedious and error prone. His work was original and detailed, without precedent or anticipation by previous writers. The publication consisted of a 57 page treatise in Latin, with 90 additional pages of tables. His first approach was not to any base, but this was later improved with the help of an admiring mathematician from London, Henry Briggs, who made the four-day journey with the express purpose of meeting the esteemed Scot. Briggs understood the potential value of Napier's discovery. Together, they improved upon the concept, setting logarithms to the familiar base 10, the "common logs" as still used today, although "natural logarithms" are often set to the base e in the sciences (see [Euler](#)).

Logarithms were to become extremely valuable for the advance of planetary science by Kepler and later astronomers. Laplace said that "by shortening the labors, they doubled the life of the astronomer." Kepler's biographer Max Caspar claims that another mathematician on the continent, Jost Burgi, a friend to Kepler, could have scooped the fame for this

counter the “marketing genius” of the label “intelligent design,” Safire left his own views unclear. He gave the last word with a Nobel laureate at Brown University, Leon Cooper: “If we could all lighten up a bit perhaps, we could have some fun in the classroom discussing the evidence and the proposed explanations — just as we do at scientific conferences.”

- **Getting Warmer:** The New York Times printed two more articles on the intelligent design controversy [Sunday](#) and [Monday](#). Though the articles still lean heavily against I.D., the [Discovery Institute](#) president Bruce Chapman gave them credit for making progress on toning down their bias. He thinks the articles have gone from 90% negative to about 60%.
- **Separate, but Equal?** Lee Harris at [Tech Central Station](#) wrote a long essay that basically takes a “non-overlapping magisteria” position, hoping peace will be attainable if Christians throw creationism overboard and stick with theology, and science leaves them alone with their beliefs. He calls Darwinism part of the “normal science” consensus of our day.
- **Censorship:** The conservative internet news source [World Net Daily](#) has published an issue of its *Whistleblower Magazine* devoted to the issue, entitled, “Censoring God: Why is the science establishment so threatened by the intelligent design movement?”

The pro-I.D. Discovery Institute, on its [Evolution News](#) blog, keeps harping on reporters to get the definition of I.D. right. I.D. is not about *supernatural* design, but about *intelligent* design. The I.D. movement remains agnostic about the designer. Slowly, some reporters are getting their wording right, but many, like the New York Times, keep defining I.D. in sentences like, “[intelligent design claims that] some organisms are too complex to be explained by evolution alone, pointing to the possibility of supernatural influences.” The wording should be, according to a [Discovery Institute](#) statement, “certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection.”

The wording may seem subtle but is significant. Anti-ID reporters are determined to portray intelligent design as inherently religious, so they employ the word *supernatural* to make their point: “See?” they gloat, hammerlocking their [straw man](#); “This can’t be science, because it’s about the supernatural!” But if the reference is to *intelligent causes*, those are already employed in scientific explanations in many fields. Science can investigate whether the cause was planned or unplanned without making any statements about who the Planner was or what the motive for the design was: this is done all the time in archaeology and criminology, for instance – even in SETI itself, which makes DeVore’s position all the more ironic. Caught in a logical trap, all she can do is fall back on arguments from [authority](#) and [bandwagon](#).

It’s good that evolution and intelligent design are getting debated in public more and more these days, but not all comments are well reasoned or informed. Some writers who think with their gall bladders instead of their cerebra are saying the most bile things. Investigating I.D. with uninformed prejudice, they ask, “what’s that awful smell?”, unaware it is their own breath blowing back in their face. Their acerbic remarks may some day come back to sting them when the Darwin idol, like that of Saddam Hussein in Baghdad, falls and is dragged around the scientific square by cheering, liberated minds.

Next headline on: [Darwinism and Evolutionary Theory](#) • [Intelligent Design](#) • [Politics and Ethics](#)

invention in Germany but published six years too late, so the rightful priority goes to Napier, who had independently developed the method out of his own gifted mind. One encyclopedia remarks, “The more one considers the condition of science at the time, and the state of the country in which the discovery took place, the more wonderful does the invention of logarithms appear.” Napier lived in an era of tumult and superstition, but appears to have been a man of good sense and reason. The same encyclopedia elaborates, “Considering the time in which he lived, Napier is singularly free from superstition: his [Plaine Discourse] relates to a method of interpretation to a later age ... and none of his writings contain allusions to astrology or magic.” Although he probably accepted some aspects of astrology (as did practically everyone in his era) some biographies suggest Napier did practical jokes playing upon the superstitions of his neighbors, hinting of his disdain for pseudoscience.

Three years after the publication of his logarithms, Napier invented another aid to calculation that puts him in the timeline of calculating machines and computers. He constructed rods of ivory with integers on them, constructed in such an ingenious way that, laid side by side, one could quickly adduce sums, quotients, products, and square and cube roots. Later dubbed “Napier’s Bones” by others, these devices again revealed the creative mind that preferred theology as his first love and mathematics just a sidelight. Other achievements in mathematics included decimal notation for fractions and the concept of negative numbers. But this inventor also put his ingenuity to practical matters of warfare, for the defense of his homeland in light of the perilous times. He conceived of a shielded chariot that would protect its drivers while allowing artillery to be fired in all directions, a mirror that could burn a ship

You Otter Hair How Otters Keep Warm 08/22/2005 —

While on a sabbatical exploring Isle Royale National Park, John Weisel (U of Pennsylvania) decided to collect hair from various mammals. He found otter fur to be particularly interesting, says a press release from [U of Penn Health System](#). Since otters don't have a layer of fat, he wondered, how do they keep warm in the icy water? Scanning electron microscopy showed the secret: the hairs fit together like tongue-and-groove woodwork: "They found that the cuticle surface structure of the underhairs and base of the less-abundant guard hairs are **distinctively shaped to interlock**, with wedge-shaped fins or petals fitting into wedge-shaped grooves between fins of adjacent hairs" (emphasis added). Click on the micrograph for additional photos and diagrams of how these hairs interlock.

Not much on a mammal's body seems simpler than hair, but like everything else in living things, simplicity evaporates on closer inspection. Not only are these hairs shaped just right to produce a tight, insulating pattern, but the blueprint has to be encoded in DNA and transcribed by the cellular construction factory according to spec, and extruded from each hair follicle at the right time, with the right shape, the right color and the right length. Lecturer Dr. [David Menton](#) can keep an audience entranced for an hour about the wonders of hair. The structural details on the micro level are necessary to produce the macro result: a sleek, playful otter that makes a living in cold water. It doesn't take much water to keep a daughter otter happy. Two pints makes one cavort.

Next headline on: [Mammals](#) • [Amazing Stories](#)

Why Evolutionary Theory Eludes Mathematical Formalism

08/19/2005

An important mathematical tool used by evolutionists has been discredited. To study *life history evolution* (i.e., the changes over time in a population's reproductive age, maximum size, age at death, etc.) evolutionists have relied on Charnov's concept of *life history invariants*. These invariants, which are "dimensionless ratios of two life history traits—for instance, age at maturity and average length of life," according to Gerdien de Jong writing in *Science*,¹ have been a staple of evolutionary models, providing generalizations "leading to an understanding of universal life history strategies." Now, warns de Jong about work by Nee *et al.* in the same issue,² the principal method of detecting life history invariants has been called into question. "The authors have determined that the approach is misleading, **throwing the very existence of the concept into doubt.**" (Emphasis added in all quotes.)

Ratios can fall on a straight line when plotted, suggesting a mathematical relationship, but Nee *et al.* have demonstrated that the relationships are figments of the method and not necessarily real. The same data plotted between groups of animals might yield a straight line, for instance, but when plotted within isolated groups of animals can yield lines offset from one another. "The regression analysis is therefore misleading," de Jong says. The same problem can exist within other biological models. Are the patterns real, therefore, or contrived? Are they meaningful in evolutionary terms?

Life history evolution is not the only field where invariants or universal constants are proposed. The Universal Temperature Dependence of metabolism proposal asserts that the metabolism of all organisms can be described by a single equation. Scaling laws (as, for instance, basic metabolic rate scale as mass to the power 3/4) are **called universal** over all life. This **hankering for universal explanations** has been **criticized** not only on **technical grounds** but also for **ignoring biology and the variation** between

from a distance, and a device that could sail underwater. So it could be claimed that Napier was the visionary father of the tank, the death ray, and the submarine.

John Napier was the first major contributor to science from the British Isles. The encyclopedia states, "There is no British author of the time except Napier whose name can be placed in the same rank as those of Copernicus, Tycho Brahe, Kepler, Galileo, or Stevinus," all from the continent. The story of the inventor of logarithms reminds us again that Christian faith, and zealous commitment to the defense of the Word of God, is no impediment to scientific progress. On the contrary, science was born, grew and flourished among Christian stalwarts like John Napier.

If you are enjoying this series, you can learn more about great Christians in science by reading our online book-in-progress: [The World's Greatest Creation Scientists from Y1K to Y2K](#). Copies are also available from our [online store](#).

A Concise Guide to Understanding Evolutionary Theory

You can observe a lot by just watching.

– Yogi Berra

First Law of Scientific Progress

The advance of science can be measured by the rate at which exceptions to previously held laws accumulate.

Corollaries:

1. Exceptions always outnumber rules.
2. There are always exceptions to established exceptions.
3. By the time one masters the exceptions, no one recalls the rules to which they apply.

Darwin's Law

Nature will tell you a direct lie if she can.

organisms. **Interesting biology** might not be in life history invariants but in **biological variation**.

De Jong illustrates, for example, that two species of fish in the same habitat can have completely different ratios of sex to social rank. De Jong doesn't go so far as to argue that it is a waste of time to look for mathematical relationships in biology, just that "We should be wary of treating an average across species as an **explanatory** general life history invariant."

¹Gerdien de Jong, "Evolution: Is Invariance Across Animal Species Just an Illusion?", *Science*, Vol 309, Issue 5738, 1193-1195, 19 August 2005, [DOI: 10.1126/science.1117591].

²Nee *et al.*, "The Illusion of Invariant Quantities in Life Histories," *Science*, 2005 309: 1236-1239.

Evolutionists desperately want their theories to be considered scientific, but the language of science is mathematics. They should recall the difference between the hard sciences and biology, as expressed by the Harvard Law: "Under the most rigorously controlled conditions of pressure, temperature, volume, humidity, and other variables, the organism will do as it *@#&! well pleases." The deception is even worse when evolutionary psychologists measure human behavior according to Koestler's Ratomorphic Fallacy, treating people like lab rats, or when they try to describe altruism, whether in humans or bacteria, in terms of the equations of game theory. One of the ugliest of recent examples involved anthropologists trying to measure the evolution of anti-Semitism (see [07/19/2005](#)).

Read the quote at the top right of this page again. Is there anything in evolutionary biology that even comes close to [Kepler's](#) Laws or [Newton's](#) Laws in generality and formal structure? Scientific research papers on evolution often contain equations, formulas, and graphs (e.g., [07/21/2005](#)), but if even some of the most basic *observable* ratios of characteristics between present-day animals can produce misleading relationships, why should anyone trust relationships inferred between dead things lost in imaginary evolutionary prehistory? If the "interesting biology" lies in variation, no pattern of evolution can be rigorously inferred. Thus, evolutionists in their formalisms commit the [fallacy of statistics](#), fooling and being fooled.

Next headline on: [Darwinism and Evolutionary Theory](#)

Saddle Up Your Algae: Scientists Harness Flagellar Motors

08/19/2005 

1805: Beast of burden of choice: oxen.

2005: Beast of burden of choice: algae.

[Science Now](#) reported an unusual item: scientists have learned how to hitch their loads to a single-celled green alga named *Chlamydomonas reinhardtii* (see [Yale](#) description). Researchers are actually calling their little teams "micro-oxen."

Scientists are increasingly interested in **harnessing biological motors** for use in micro- and **nanotechnology**, but recent research has mainly involved **taking moving parts out of cells** and adapting them for use elsewhere. It's a complicated process that can require protein engineering. So, chemist Doug Weibel of Harvard University in Cambridge, Massachusetts, and colleagues wondered if they could simply use **an intact organism as a beast of burden** instead. (Emphasis added in all quotes.)

Bloch's Extension
So will Darwinists.

Finagle's Creed

Science is true.? Don't be misled by facts.

Finagle's 2nd Law

No matter what the anticipated result, there will always be someone eager to (a) misinterpret it, (b) fake it, or (c) believe it happened according to his own pet theory.

Finagle's Rules

3. Draw your curves, then plot your data.
4. In case of doubt, make it sound convincing.
6. Do not believe in miracles – rely on them.

Murphy's Law of Research

Enough research will tend to support your theory.

Maier's Law

If the facts do not conform to the theory, they must be disposed of.

Corollaries:

1. The bigger the theory, the better.
2. The experiments may be considered a success if no more than 50% of the observed measurements must be discarded to obtain a correspondence with the theory.

Eddington's Theory

The number of different hypotheses erected to explain a given biological phenomenon is inversely proportional to the available knowledge.

Young's Law

All great discoveries are made by mistake.

Corollary

The greater the funding, the longer it takes to make the mistake.

Peer's Law

The solution to a problem changes the nature of the problem.

Peter's Law of Evolution

Competence always contains the seed of incompetence.

This alga contains whiplike flagella that propel them through liquid like motorized paddleboats (see [U of Wisconsin](#) description). “These algae are very reliable,” Weibel said. See also the [BBC News](#) report.

In other flagellum news, Howard Berg of Harvard, writing in *Current Biology*,¹ described how bacterial flagella (the rotary kind) receive feedback from the environment: “the flagellum senses wetness,” he reported. The wetness of the environment affects antagonistic regulatory proteins that control flagellum production. Research by Q. Wang *et al.* found that a suppressor is “pumped out of the cell by the flagellar transport apparatus once assembly of the basal part of the flagellum is complete,” Berg said. What for? “This prevents the cell from wasting energy on flagellin synthesis when this protein cannot be put to use.” The scientists sprinkled a little water on dry colonies for 90 seconds and, sure enough, got them to produce more and longer flagella that exhibited normal swarming behavior. Berg describes it: “Swarming is a specialized form of bacterial motility that develops when cells that swim in broth are grown in a rich medium on the surface of moist agar. The cells become multinucleate, elongate, synthesize large numbers of flagella, secrete surfactants and advance across the surface in coordinated packs.”

¹Berg, Howard, “Swarming Motility: It Better Be Wet,” *Current Biology*, Volume 15, Issue 15, 9 August 2005, Pages R599-R600.

The intelligent design movement could get a load of this. It was amazing enough that some flagella are built like high-tech rotary motors. For humans to harness that power and use it underscores the claim that these really are *molecular machines*. It's there; it works; why reinvent the wheel?

Next headline on: [Cell Biology](#) • [Amazing Stories](#)

Do Emperor Penguins Know the Meaning of True Love?

08/19/2005 —

The nature film sensation [March of the Penguins](#) is capturing the public imagination because of its portrayal of emperor penguins in almost anthropomorphic visions. Strutting upright in their feathery tuxedos, these Antarctic seabirds seem almost human: they love, they walk, they sacrifice, they grieve over the loss of a chick, they endure hardship bravely, they rejoice at a family reunion. It's a bit over the top, reports Hillary Mayell for [National Geographic News](#). She quotes biologists who cast doubt on whether penguins can experience true feelings. Penguins respond to hormones, biologists tell us, and their social behavior is instinctive. Still, the movie is worthwhile, the article confesses; the simplistic portrayal is useful, helping make some aspects of the life cycle of penguins more accessible to the general public.

Mayell is right about the fallacy of imputing human emotional and moral qualities to birds. Still, birds are among the smartest of animals ([03/23/2004](#), [02/17/2004](#), [08/09/2002](#)). Who could know what they think and feel without becoming a birdbrain? (Remember, that is a compliment, not an insult—[02/01/2005](#)). To believe that such behaviors are mere emergent properties of matter in motion seems inadequate. In evolutionary terms, animal behaviors that look playful or emotional seem senseless in a world of survival, and evolutionists are at a loss to explain them ([03/24/2005](#)). Maybe the fact that we humans can relate to the cries, chirps, and behaviors of emperor penguins indicates that there is, at some level, a non-material element to their ontology, a kind of psyche. While avoiding the fallacy of [personification](#), we must also not commit the fallacy of [reductionism](#).

Penguins, despite their comical waddling, deserve our respect.

Weinberg's Corollary

An expert is a person who avoids the small errors while sweeping on to the grand fallacy.

Souder's Law

Repetition does not establish validity.

Cohen's Law

What really matters is the name you succeed in imposing on the facts – not the facts themselves.

Harrison's Postulate

For every action, there is an equal and opposite criticism.

Thumb's Second Postulate

An easily-understood, workable falsehood is more useful than a complex, incomprehensible truth.

Ruckert's Law

There is nothing so small that it can't be blown out of proportion

Hawkins' Theory of Progress

Progress does not consist in replacing a theory that is wrong with one that is right.? It consists in replacing a theory that is wrong with one that is more subtly wrong.

Macbeth's Law

The best theory is not *ipso facto* a good theory.

Disraeli's Dictum

Error is often more earnest than truth.

Advice from Paul

Guard what was committed to your trust, avoiding the profane and idle babblings and contradictions of what is falsely called knowledge – by professing it some have strayed concerning the faith.

I Timothy 6:20-21

Song of the True Scientist

O Lord, how manifold are Your

They are wonderful birds, amazingly adapted to their harsh environment. (And, contrary to the claims of paleoanthropologists, they demonstrate that walking upright was not invented by Lucy.) As true birds, yet so profoundly different from the sparrows and robins that share our urban settings, penguins outperform fish as champion swimmers ([09/10/2004](#)). The sea is their sky. They fly through the water with the speed and grace of a swift. Emperors are among the most handsomely dressed of all penguins, their black-and-white curvaceous outfits highlighted with a blush of facial vermilion. One would think it was produced by the same fashion designer who decorated orcas and pandas. Viewers will undoubtedly notice also how the plumage pattern changes dramatically from chick to adult: the chicks' eyes are surrounded by goggles of white, whereas the parents' are nearly concealed in jet black. Knit together as effectively as thick fur, the feathery coat repels freezing water and biting winds that can rage up to 100 miles per hour and plummet to 70 degrees below. Their thick, leathery feet, looking like crampons underneath and alligator skin on top, are tough enough to survive miles of walking across ice, yet tender enough to cradle an egg and protect a downy hatchling for months.

So many physiological adaptations have to be finely tuned for these birds to survive – from the warm flap of skin that incubates the egg centimeters away from the deadly cold, to the ears and eyes that can survive the pressure a thousand feet down in the ocean, to the exact timing of the hatching of the eggs and the females' arrival to feed them, and much, much more – they seem irreducibly complex on the macro scale. Undoubtedly some accentuation of existing characters might occur over many generations as the habitat changes, but to believe that all these adaptations could have coalesced in one species by a blind process of natural selection stretches credulity beyond reason. If it were true, where are the transitional forms? Where are the fossils? Despite the single reference to millions of years of adaptation, *March of the Penguins* is a film about intelligent design. Fact is stranger than fiction. Like [World magazine](#) said, this stuff just can't be made up.

Take the family to see this movie. You'll laugh at the penguins' bellyflops, admire their handsome suits, observe the physical adaptations that outfit them for survival, and shiver at the hardships they endure. The story is beautiful, the photography stunning (a tribute to the challenges the cameramen endured), the music is memorable, and, despite the occasional human emotions attributed to the birds, it's true – emperor penguins actually perform this incredible 70-mile march, year after year, in one of the harshest environments on earth. This may be a film you will want to have in your home DVD collection along with [Winged Migration](#), to reflect on any time your life seems too difficult. We give it two flippers up. *Next headline on:* [Birds](#) • [Media](#) • [Amazing Stories](#)

From Emperors to Monarchs... 08/19/2005

If lion is king, and penguin is emperor, who would have thought a dainty insect would be monarch? [EurekaAlert](#) posted a story earlier this month too good to pass up: monarch butterflies follow the light – ultraviolet light – to their breeding grounds. Scientists at Hebrew University, working with monarchs in a specially-designed flight simulator (see [05/09/2005](#), [07/09/2002](#)), found that UV light was the key to keeping them on course. But that's not all: "Further probing revealed a **key wiring connection** between the light-detecting **navigation sensors** in the butterfly's eye and its **brain clock**," the article states. "Thus, it was shown that **input from two interconnected systems** – UV light detection in

works! ? In wisdom You have made them all. ? The earth is full of Your possessions May the glory of the Lord endure forever. ? May the Lord rejoice in His works I will sing to the Lord s long as I live; I will sing praise to my God while I have my being. ? May my meditation be sweet to Him; I will be glad in the Lord. ? May sinners be consumed from the earth, and the wicked be no more. ? Bless the Lord, O my soul! ? Praise the Lord!

from Psalm 104

Maxwell's Motivation

Through the creatures Thou hast made
Show the brightness of Thy glory.
Be eternal truth displayed
In their substance transitory.
Till green earth and ocean hoary,
Massy rock and tender blade,
Tell the same unending story:
We are truth in form arrayed.

Teach me thus Thy works to read,
That my faith,— new strength accruing—
May from world to world proceed,
Wisdom's fruitful search pursuing
Till, thy truth my mind imbuing,
I proclaim the eternal Creed —
Oft the glorious theme renewing,
God our Lord is God indeed.

— [James Clerk Maxwell](#)
One of the greatest [physicists](#)
of all time (a [creationist](#)).

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TGP

the eye and the biological clock in the brain – **together** guide the butterflies ‘straight and true’ to their destination **at the appointed times** in their **two-month migration over thousands of miles/kilometers**” (emphasis added). Think how tiny a butterfly brain is to store that kind of programming.

Next headline on: [Terrestrial Zoology](#)

Italy Going Soft on Darwinism 08/19/2005

The controversy over evolution is not limited to American shores. An editorial in the September issue of *American Naturalist*¹ expresses concern that evolutionary biology is getting a low-key treatment in Italian universities:

The Darwinian theory of evolution by natural selection is the unifying principle of the biological sciences [sic]. Unfortunately [sic] in the Italian academic system, evolutionary biology is not acknowledged as an independent research area, so no faculty positions in “evolutionary biology” can be established, and most students hear only a brief summary of evolutionary theory in the final hours of their introductory zoology, paleontology, or genetics courses. To make matters worse [sic], during the past two years, several creationist organizations have been publicly attacking the teaching of evolutionary theory. (Emphasis added in all quotes.)

It’s time to take action, says the Italian Society for Evolutionary Biology. Last year, they established the Coordinamento Italiano dei Biologi Evoluzionisti – CoEvol for short – to both strengthen collaborations between Italian evolutionists and to “improve the **teaching of evolution** in Italy and to increase the involvement of undergraduate and graduate students in evolutionary studies.” Activities include a new cyber-journal club allow evolutionists to discuss recent papers, annual meetings, and the announcement of the new Italian Society for Evolutionary Biology. More significantly, CoEvol hopes to become a “lobby group that will foster collaboration among Italian evolutionary biologists in Italy and abroad and **represent our interest in making evolutionary biology a priority** in the Italian educational system.” They have established a website: www.coevol.org.

¹Announcements, “Letter from the Italian Society for Evolutionary Biology,” [The American Naturalist](#), Vol. 166, Sept. 2005, pp. i-ii.

Today, class, we will learn about the evolution of the pizza. The pizza was not created by intelligent design, as those rascally creationists allege. Instead, it “emerged” out of the primordial dough. Over millions of years, it became just one species of Italian food on the evolutionary Cuisine of Life, with spaghetti, linguini, tortellini and macaroni branching off early and forming the Pasta Kingdom, incorporating parmesan by lateral cheese transfer. Some theorists believe that pepperoni was once a free-living organism that became incorporated into pizza as an endosymbiont during the Prosciutto epoch of the Paleocarne Era. The pizza class experienced a rapid diversification into many forms on the North American continent, as the Italian fast-food restaurant niche opened after the last Ice Cream Age. This stimulated an explosive period of adaptive radiation, producing the Round Table family, the Shakeys family, and the Chuck E. Cheese family, among others. The microwave pizza, with no phylogenetic connection to the old-world pizzas of the Italian peninsula, provides a striking example of convergent evolution....

That makes about as much sense as the usual evolutionary

storytelling in biology. Will Italian students give it much more than a yawn? Maybe Go-Evil should obtain a concertina marching band and hold parades, where Emperor Charlie as Grand Marshall can strut down the Appian Way in his new clothes – on second thought, better pack a designer loincloth.

Have you ever noticed that every announcement by Big Science starts with the same line? – “the Darwinian theory of evolution by natural selection is the unifying principle of the biological sciences.” It’s almost enough to feed conspiracy theories. In actuality, evolution is about as unifying as iron mixed with clay, the iron representing hard science based on observation, and the clay representing evolutionary speculation. No matter how much it tries to cling to the iron, the clay will not be able to support the statue without a change of ore.

Next headline on: [Darwinism and Evolutionary Theory](#) • [Education](#)

Meteorite Impacts Solar System Theories 08/18/2005

A study partly funded by NASA and published in *Nature*¹ has thrown a “monkey wrench” into theories of the origin of the solar system, according to a press release from the [University of Toronto](#). Small grains of minerals called chondrules in two meteorites are “young” – too young to have been formed in the assumed primordial solar nebula. When Alexander Krot and Yuri Amelin dated these chondrules, they found them too young to have formed at the beginning of the solar system. They postulate that heat from a collision much later might have formed them. “It soon became clear that these particular chondrules were not of a nebular origin,” Amelin said. “And the ages were quite different from what was expected. It was exciting.”

¹Krot *et al.*, “Young chondrules in CB chondrites from a giant impact in the early Solar System,” *Nature* 436, 989-992 (18 August 2005) | doi: 10.1038/nature03830.

By “young,” Amelin and Krot are not claiming *really* young, but only a few millions less than billions: some 5 million years after the assumed birthday of the solar system, when meteorites were supposed to have formed. They exaggerate this birthdate to five significant figures: 4.5672 plus or minus 0.0007 billion years ago. With such contrived precision (see [06/05/2003](#) entry), Amelin and crew feed the Age of the Solar System (q.v. acronym) Myth. The rest of the scientific community falls in line, never questioning these ages. Here, we see that Dr. Moyboy himself (“millions of years, billions of years”) has found an anomaly that allows him to throw in a thickening to the plot and get more fame in *Nature*. If this helps solar system theorists question their assumptions a little, that’s a modicum of progress. Does it demonstrate that these two chondrules really are 4.5627 +/- .0005 and 4.5628 +/- 0.9 billion years old? Better read the caveats at the end of their paper:

This formation event [the hypothetical impact that formed the chondrules] has **probably homogenized radionuclides** in chondrules and metal of the CB chondrites, and **reset short-lived radiogenic isotope systems....** For establishing **consistent Solar System chronology, these chronometers have to be linked together and tied to an absolute timescale.**

Most **meteorites** are made of **components formed at different time** [sic], and/or **experienced complex and prolonged post-formation metamorphic history,** and are **not suitable for linking short-lived**

chronometers. In contrast, the correlated studies of multiple short-lived isotope systems in CB chondrites can **potentially** test the **consistency** among them and **provide a tie to an absolute timescale**, which **will** be an important **step** towards the unified timescale of the earliest Solar System. (Emphasis added.)

With such wheeling and dealing going on behind the scenes, would you trust a resultant date to five significant figures? If so, try Madame Bluffy's panacea potion. She mixed a pinch of bat wing, a smidgeon of spider eye and a handful of shredded Amanita mushroom gill in a solution of approximately half goat milk and half vodka. She guarantees it 99.263 +/- .004% effective in the treatment of warts, goiter, acid reflux and toenail fungus.

Next headline on: [Dating Methods](#) • [Solar System](#)

Fossil Brachiopod Shows Soft Part Details 08/18/2005

American and British paleontologists described in *Nature*¹ the discovery of nearly complete brachiopods with calcified soft parts intact. They exhibited intricate details never before seen in fossils of these organisms, sometimes called lamp shells. Brachiopods, a type of marine animal that attached itself to the sea floor with a pedicle or stalk, were very abundant in the Cambrian, but are rare now.

By carving off the concretion encasing the fossil a layer at a time, and photographing each layer, Sutton *et al.* were able to produce a computerized 3-D model of the entire organism. The two specimens differ from extant brachiopods in some respects. The fossils were found buried in a Herefordshire (UK) volcanic ash bed estimated to be 425 million years old.

See also the reports in [EurekAlert #1](#) and [#2](#). The latter is entitled, "Still shellfish after 425 million years: Clam-like creature preserved perfectly in ancient fossil."

¹Sutton *et al.*, "Silurian brachiopods with soft-tissue preservation," *Nature* 436, 1013-1015 (18 August 2005) | doi: 10.1038/nature03846.

Except for the shells, brachiopods are extremely delicate. That is why, even though they were abundant in the past, no complete fossil with the soft parts intact has been found until now. That these ones could be preserved so completely, with such fine detail, is remarkable enough, but to be told that these fossils lay undisturbed for 425 million years stretches credibility.

Even according to the evolutionists' own fictional timeline, major changes to the earth were supposed to have taken place since the Cambrian: continents broke apart, supervolcanos erupted, meteors struck and caused mass extinctions, the climate warmed and cooled, mountains rose and fell, and seas and glaciers advanced and retreated. The continents could have eroded to sea level multiple times in the interval we are being asked to believe these brachiopod fossils just sat their waiting for a paleontologist to find them. How come there has been so little evolution to this group in such a long time? Why does no one in the secular literature ever ponder such questions? Why are the dates of the rocks never put into doubt? How could anyone possibly know that such specimens could remain intact for that long? Why do reporters just regurgitate everything they are told?

Since no one in those groups ever asks such questions, you can exercise a little free thought. Play a little visualization game in your head. Start by imagining all of recorded history: all the wars,

kingdoms, migrations, and natural disasters man has witnessed. Then imagine a prehistory of evolutionary and geological change stretching back a hundred thousand times as long, without any human observers. During all this time, the earth veritably remade its surface multiple times. Now think about the crudely preserved bodies buried at Pompeii in the 1st century AD for comparison. Is it reasonable to you, dear reader, to believe that these fossil brachiopods were really buried 425 million years ago? If not, why do you think they are telling us this story?

Next headline on: [Fossils](#) • [Marine Biology](#)

Dumb Down or Wise Up? Rhetoric Over ID Intensifies 08/17/2005

More and more reporters, scientists and scientific societies are weighing in with their opinions on evolution vs. intelligent design (ID) this week (see [08/13/2005](#) entry). Here are some of the more interesting of the recent salvos:

- It's Official: ID Is Not Science: If the scientific validity of an idea can be ruled by authority, then intelligent design has been voted unscientific by three agricultural societies, reported [EurekAlert](#). The American Society of Agronomy, the Crop Society of America, and the Soil Science Society of America have joined other scientific organizations in condemning President Bush's remark ([08/13/2005](#)) that students should hear both sides in the origins debate. To them, anything other than evolution is religious, and evolution is just as scientific as gravity.
- Tolerance: In a somewhat surprising tone of conciliation, considering previous attacks on ID as religiously motivated ([08/10/2005](#)), [Nature](#) argued that a religious leader should be allowed to speak at a scientific meeting. Why should the Dalai Lama not be barred from sharing his views on neuroscience and society? History: "But speakers at meetings – non-scientists or scientists – should not be barred on the basis of their religious beliefs. Well-known scientists including [Newton](#) have had religious beliefs that many people would disagree with," [Nature](#) points out, "but these have no bearing on the credibility of their scientific ideas." Since the Dalai Lama will not be speaking as a scientist, presumably that's OK. He is perfectly entitled to do so, the editorial argues, with the title reading, "Science and religion in harmony."
- BBC: British Bashing Creation: Harold Evans gave his point of view on the question of creation for the [BBC News](#). Scopes, fundamentalism, creationism in a subtler guise – you get the idea.
- KDE: Kansas Denigrating Evolution: Geoff Brumfiel in [Nature](#) 08/18/2005 reported on the Kansas decision to allow criticisms of evolution. Brumfiel gives quotation rights to those who claim this is a "religiously motivated" that paves the way for teaching of intelligent design. Education board chairman Steve Abrams called the charges baloney: "Is it wrong to teach critical analysis and critical thinking?" he asked. Eugenie Scott got the last word: "These standards are very clearly denigrating evolution."
- No Worries, Mate: The Australian minister of education, Brendan Nelson, doesn't want intelligent design to replace "teaching the origins of mankind in a scientific sense," reports [CNS News](#), but if parents want their children to be taught about ID, that's fine. "It's about choice, reasonable choice," he remarked.
- Battle Royale at USA Today: Evolutionists and ID theorists faced off in [USA Today](#). Eugenie Scott and Glenn Branch gave their side, and [ID spokesmen](#) John Angus Campbell and Stephen Meyer got equal time.
- Persecution: David Klinghoffer, writing in the [National Review](#), exposed underhanded tactics used by members of the Smithsonian Institution in its

treatment of Richard Sternberg last year for his allowing the publication of an ID paper in one of its journals ([09/24/2004](#)). The [Washington Post](#) followed with an exposé. The [US Office of Special Counsel](#) issued a letter (posted by [Sternberg](#)), finding that the Smithsonian's actions constituted a "hostile work environment" designed to retaliate against Sternberg and force him out of the Smithsonian. The actions included disseminating misinformation throughout the institution about him and digging for dirt in his background.

- **Dumb Down:** With what Rob Crowther ([Discovery Institute](#)) called "shrill polemics," Peter Ward (U. of Washington), co-author of *Rare Earth*, gave a piece of his mind to the Seattle [News Tribune](#). Incredulous that intelligent design is being given the time of day, he compared creationism with belief in a flat earth, and claimed the ID leadership must admire religious states like Iran. "Teaching intelligent design at the middle school or high school level will rob our young students of a proper grounding in science, because it bears no relationship to science," he said. "Those who say it does are toying with the future of our nation. And I believe they are doing so deliberately, even maliciously." Now, Dr. Ward, tell us what you really think.
- **Wise Up:** Jonathan Witt (Discovery Institute) responded to Peter Ward in the [News Tribune](#) without flinching. He claimed such comments represent an attitude of desperation on the part of Darwinists, who don't want competition. To them, President Bush committed the unforgivable sin by allowing Darwinism to be questioned. Witt claims that the Darwinists' reactions bear all the hallmarks of a paradigm in crisis.

If the Darwinists don't come up with better talking points, they're going to lose. They all sound like each other, throwing around [loaded words](#) and [ridicule](#) with talk of flat earth, bogeymen, Taliban, pseudoscience, fundamentalism and, worst of all, "creationism." Come on, you guys, wise up. Tell ID how molecular machines built themselves and they'll turn down the heat. It is indeed strange how tolerant the materialists are of religion when it is the Eastern, mystical kind, maybe because it only makes them meditate instead of think. They can relate to that. After all, Darwinian storytelling puts one into an altered state of consciousness.

It's good to see the question of origins get some public exposure, but the thing ID should fear most is not the arguments of the Darwin Party. It is the raw exercise of their power to shut off discussion, and to rule, by fiat, Charlie Worship as the official state religion. Such a tactic would be analogous to frequent cases where laws passed by Congress or by public initiatives – sometimes by overwhelming margins – have been ruled "unconstitutional" by a single activist judge or circuit court. They could do it, you know, and they just might. The dumb will just roll over and accept the decision of the oligarchy. The wise will take note of what such a response signifies. The rulers of Athens can neither explain, nor endure, a [gadfly](#).

Next headline on: [Darwinism and Evolutionary Theory](#) • [Intelligent Design](#) • [Education](#)

Cambrian Fossil: What Is It? 08/17/2005

A Cambrian fossil discovered in China may represent a new phylum, reports [BBC News](#). *Vetustodermis*, discovered in 1979, looks like a flatworm with eye stalks and antenna. It resembles a mollusk or arthropod in some ways, but scientists aren't sure how to classify it. Forcing it into any existing group requires "pushing and pulling" that is "messy," the article states. David Bottjer

(USC) seems willing to open up a new category. “We have always been intrigued by the many molluscan features of these fossils,” he said, “but in the great menagerie of organisms that have inhabited Earth through life’s long history, we may come to conclude that *Vetustodermis* indeed represents a new phylum.” (Within each *kingdom*, a *phylum* [pl. *phyla*] is the highest rank of classification.)

Jonathan Todd (Natural History Museum, London) doesn’t want to create new phyla willy-nilly any time a new organism is found with unique features. His reasoning is evolutionary; he criticizes fellow taxonomists who are “not thinking in the phylogenetic sense” to establish where each discovery fits into “the greater evolutionary tree” of life. He reasons, “recent phyla have got to connect somehow.”

One thing is for certain: this animal was complex. Within the evolutionists’ own dating scheme, this animal is right at the beginning of multicellular life, and already has antennae, eyes, and propulsion. Only the cartoonish Popeye theory of evolution ([05/31/2005](#)) could believe such complex systems emerged suddenly without precursors.

When playing connect-the-dots, the more dots, the better. Collecting more fossils is like adding dots. When the underlying picture that slowly emerges does not fit one’s preconceptions, it is not fair to push and pull the dots toward where one wants them to be.

Next headline on: [Fossils](#) • [Evolution](#)

Can Atheism Breathe in an Anthropic Universe? 08/16/2005



Astronomers Martin Rees and Mario Livio considered “Anthropic Reasoning” in a *Science* perspectives article.¹ The question bears not only on SETI, and whether intelligent life exists elsewhere, but why it exists here. They state the issue:

We can imagine universes where the constants of physics and cosmology have different values. Many such “counterfactual” universes would not have allowed the chain of processes that could have led to any kind of advanced life. For instance, even a universe with the same physical laws and the same values of all physical constants but one—a cosmological constant lambda (the “pressure” of the physical vacuum) higher by more than an order of magnitude—would have expanded so fast that no galaxies could have formed. (Emphasis added in all quotes.)

And that’s not the only constant that appears finely tuned. They also discuss the presence of baryons (like protons and neutrons), the fact that our universe is not perfectly smooth, allowing structure to form (designated by the parameter Q), and “a gravitational force that is weaker by a factor of nearly 10^{40} than the microphysical forces that act within atoms and molecules—were gravity not so weak, there would not be such a large difference between the atomic and the cosmic scales of mass, length, and time.”

A key challenge confronting 21st-century physics is to decide which of these dimensionless parameters such as Q and are **truly fundamental**—in the sense of being explicable within the framework of an ultimate, unified theory—and **which are merely accidental...**

If some physical constants are not fundamental, then they **may take**

different values in different members of the ensemble [of universes]. Consequently, some **pocket universes** [sic] may not allow **complexity** or **intelligent life** to evolve [sic] within them. Humans would clearly have to find themselves [sic] in a pocket universe that is “biophilic.” Some otherwise puzzling features of our universe may then simply be the result of the epoch in which we exist and can observe. In other words, the values of the **accidental constants** would have to be within the ranges that would have allowed intelligent life to develop [sic].

Anthropic reasoning investigates the nature of such biophilic domains. Some cosmologists used to assume that inflation theory put these enigmas to rest, but new ones have arisen recently. “Anthropic considerations are beginning to be seriously discussed,” they say, “especially in relation to dark energy.” This factor not only impinges on the question of whether life could arise in a universe of arbitrary constants, but why it should exist now:

The question that arises is **why we happen to live in the first and probably only time in the history of the universe** in which the **matter density** and **dark energy density** are **roughly equal**.

The questions used to be: Why should empty space exert a force? Why should there be a cosmological constant lambda? Now we ask: **Why is the force so small?** If there was an inflationary era with a large cosmic repulsion, how could that force have switched off (or somehow have been neutralized) with **such amazing precision?** In our present universe, lambda is **lower by a factor of about 10^{120} than the value that seems natural to theorists.**

If lambda were larger, the universe would have expanded too fast for galaxies to form. Is lambda a random variable, one that could take on any conceivable value? If so, its precision today is amazing enough, but that’s not all: “The situation becomes more complex when more than one physical parameter is postulated to be a random variable.” Is Q also contingent, or is it dependent on the value of lambda? The more random variables there are, the luckier our presence appears.

The authors discuss two reasons why anthropic reasoning “**tends to raise the blood pressure** of some physicists.” First, proposing an ensemble of unobservable universes seems to run counter to the scientific method of observation and experimentation. It lies within metaphysics, not physics. The authors counter that the more we test our cosmological models, the more we can infer that alternate universes might exist. Second, some physicists feel that “anthropic reasoning seems to point to a fundamental limitation of physics,” the end of physics as it were. The authors respond that this is merely a psychological objection.

Physicists would like, above all else, to discover a uniquely self-consistent set of equations that determines all microphysical constants, and the recipe for the big bang. They therefore hope that future theories will reveal that all physical parameters are uniquely determined. **But there is no reason why physical reality should be structured according to their preferences.** It is good that many physicists are **motivated** to seek a theory that uniquely derives all fundamental numbers and constants, but they may be doomed to failure.

The **quest for first-principles explanations** may prove as vain as [Kepler](#)’s quest for a beautiful mathematical formula that described the solar system. If future developments bear out the possibility of a

multiverse, **then anthropic arguments will offer the only “explanation”** [sic] that **we will ever have** [sic] for some features of our universe. At the moment, we have no firm reason to close off any of the options. In view of **our current ignorance** as to what is truly fundamental and what is not, we should keep an open mind about all the options.

Last, they discuss whether anthropic reasoning has any predictive power. They argue that, in principle, it does. If lambda is random, they say, there would be a “an upper limit above which structure and complexity would not emerge.”

Assuming we inhabit a mediocre universe in the ensemble “(as **Copernican humility** would **require** [sic]),” they reason that we ours would be just below the upper limit. “As it turns out, however, the value determined from observations of high-redshift supernovae and from the spectrum of the fluctuations in the cosmic microwave background is smaller than the threshold by only a factor of 5 to 10, not inconsistent with anthropic expectations.”

In conclusion, they anticipate that better measurements of dark energy, and the detection of gravity waves from inflation, might eventually shed light on whether a multiverse exists – and whether our laws of physics are unique. “Our universe isn’t the neatest and simplest,” they claim. It has the rather **arbitrary-seeming mix of ingredients** in the **parameter range that allows us to exist**.

Until we **know for sure** [sic] which type of universe or multiverse we live in, **anthropic reasoning** is certainly **one option** in the physicists’ arsenal.”

¹Mario Livio and Martin J. Rees, “Perspectives: Cosmology: Anthropic Reasoning,” [Science](#), Vol 309, Issue 5737, 1022-1023, 12 August 2005, [DOI: 10.1126/science.1111446].

This entry is offered for your amusement and amazement at the mental gymnastics atheists go through to deny the obvious: that our universe was designed for life. Rees and Livio mourn that “anthropic arguments will offer the only “explanation” that **we will ever have** for some features of our universe.” This is the despair of atheism. Have they not known? Have they not heard? Has it not been told them from the beginning? [Isaiah](#) has a lot to say about that, but those unwilling to look at ancient sources might instead at least be willing to listen to what secular scientists like Robert Jastrow, Donald Brownlee and Paul Davies had to say in the recent film, [The Privileged Planet](#). The design features in our universe that make life possible were not abstruse or hidden to these secular astronomers; they were abundantly evident – astonishingly so. Why should anyone run so hard from the obvious interpretation, that our universe really was designed for a purpose? It would seem that the evidence for a Creator would be a source of hope, joy and gratitude, provided one is willing to swallow his pride.

The anthropic principle is not an explanation. It is a cop-out that commits the [post hoc fallacy](#), a sophistical dodge to avoid the design inference. It appeals to metaphysical entities (alternate universes) that require far more faith than belief in God – in fact, 10^{120} times as much faith. As a substitute for religion, it has become a religion itself. See, for instance, the conclusion of *The Anthropic Cosmological Principle* by Barrow and Tipler, where they speculate that intelligence will evolve toward omniscience and omnipotence. Too bad they won’t live long enough to see it.

The anthropic principle (AP), arguably the religious anthropic principle (RAP), comes in several flavors. The weak anthropic principle (WAP) says that if the universe were not structured the way it is, we wouldn’t be here to worry about the question. The strong anthropic principle (SAP) postulates a multiverse—an

ensemble of universes, and reasons that a kind of cosmic natural selection led to our finding ourselves inhabiting this one (this is the position taken by Livio and Rees).^{*} Yet atheist escapism knows no bounds. There is an even stronger form of the anthropic principle that actually asserts that humans created the universe! The suggestion is that by observing the universe, we gave reality to the parameters that made such observations possible. One critic called this the Completely Ridiculous Anthropic Principle. The acronym is left as an exercise.

Next headline on: [Cosmology](#) • [Physics](#) • [SETI](#)

^{*}Good rebuttals to the multiverse proposal can be found in the Q&A section in the Bonus Features of *The Privileged Planet*, as well as a clarification of what [Copernicus](#) taught.

Origin of Life Studies: Motion or Emotion? 08/15/2005

Harvard is going to fund origin-of-life research to the tune of a million dollars a year, according to an AP release reported by [LiveScience.com](#), [MSNBC News](#) and the [Washington Post](#). The goal is to reduce life's origin to a "series of **logical events** that could have taken place with **no divine intervention**," according to Harvard chemistry professor David Liu (emphasis added in all quotes). Part of the motivation for this initiative appears to be a counterattack to recent advances by the intelligent design (ID) movement: MSNBC titled their copy, "Harvard jumps into evolution debate."

Evolution is a fundamental scientific theory that species **evolved over millions of years**. It has been **standard** in most public school science texts for decades but recently re-emerged in the spotlight as communities and some states debated **whether school children should also be taught about creationism or intelligent design....**

Scientists [sic] say that **intelligent design, unlike evolution**, [sic] makes no scientific **predictions** and is **not testable**, and so it is **not a scientific theory** [sic]. **Scientists** [sic] freely admit they **don't know everything**, but they cite the **history of figuring things out** as evidence that **mysteries do not imply divine, undecipherable solutions**.

Harvard has not been seen as a leader in origins of life research, but the university's vast resources could change that perception.

Pro-evolutionists like Eugenie Scott have usually tried to keep the issue of the origin of life in the background, and treat it as a separate question. ID isn't letting the issue get lost in the shadows. ID publications such as the popular film [Unlocking the Mystery of Life](#) are hoisting the issue into the limelight in order to point out the inadequacy of naturalism to account for life at its most fundamental level. This may be spurring evolutionists to accelerate their efforts to show progress at most, or to look busy at least, so as not to concede an important piece of territory to their opponents. They know that if ID persuades enough people that life required intelligence at the start for the first cell, then naturalism risks appearing inadequate or even superfluous for explaining the origin of birds, mammals, trees and all the rest by an unguided, mechanistic process of natural selection. Though ID remains agnostic about identity or nature of the intelligent cause, to permit a Designer, God or undefined intelligence at any point would undermine the credibility of naturalistic science to explain the entire history of the universe without reference to divine intervention.

One strategy is to downplay the difficulty of the problem or portray it in easy-to-visualize metaphorical language. In a recent press release, for instance, the [Geological Society of America](#) suggested that meteor impacts might have "jump-started" life. The evidence is strictly circumstantial: "It's **interesting** to

note, says [Gordon] Osinski [Canadian Space Agency], that on Earth the **heaviest meteor bombardment** of the planet happened at about the same time as **life is believed to have started**: around 3.8 billion years ago.”

Another strategy is to claim partial success. Three confident-looking young scientists appeared in a recent press release from [University of Bath](#), with the title announcing, “Scientists crack 40-year-old DNA puzzle and point to ‘hot soup’ at the origin of life.” Actually, all they did was hypothesize that life began with a two-letter DNA code, and subsequently graduated to a three-letter code when a larger vocabulary of amino acids became necessary. Yet at the very time their model assumes the genetic code evolved naturally, the article points out that the genetic code possesses qualities generally characteristic of designed systems: translational integrity, robustness, optimization, and high fidelity:

The theory also explains [sic] how the structure of the genetic code **maximises error tolerance**. For instance, ‘slippage’ in the **translation** process tends to produce another amino acid with the **same characteristics**, and explains **why the DNA code is so good at maintaining its integrity**.

“This is important because these kinds of **mistakes can be fatal for an organism**,” said [Jean] Dr van den Elsen. “**None of the older theories can explain** how this **error tolerant structure** might [sic] have arisen [sic].”

It’s not likely that the opponents of evolution will be impressed by any of these three salvos, nor will retreat from pressing their case that evolutionary theory is bankrupt when accounting for the origin of life.

Not all motion is progress. It might just be emotion, commotion, or self-promotion ([04/22/2005](#), [04/11/2005](#)). Evolutionists are generating a lot of commotion these days trying to find life’s potion in the ocean, with unmixed devotion to the notion that natural causes can explain everything, even a Laotian. Harvard argues that science has a history of solving problems without reference to divine intervention. They think that by running faster they will get there eventually, but what if they are running in circles? They think that by investing more money they will win, but what if the investment is a stock fraud? They think that by digging faster they will find the buried treasure, but what if they have cordoned off from consideration the very spot on the island where the treasure map says it is buried?

The claim that naturalism will figure it out eventually, because science has a long history of figuring out other mysterious phenomena, is a common argument from the naturalists, so let’s think about it a minute. It sounds reasonable on the surface, but in essence, it is a belief based on [extrapolation](#) and [analogy](#). All experiments in chemical evolution for 75 years have failed; in fact; the situation is more hopeless now (follow the chain links on Origin of Life) than it was when Oparin, and even Charlie himself, first speculated about how the first cell might have come about in a soup of chemicals. Obviously, a runner will never win if running backwards away from the finish line, nor will a dogsledder reach the north pole when the ice he is on is moving southward at a faster rate. A look at history would appear to support the criticism that abiogenesis has nearly been falsified already, when [Pasteur](#) with his law of biogenesis disproved spontaneous generation. Chemistry shows that molecules obey the laws of valence and mass action blindly without purpose or direction. Physics shows that the laws of thermodynamics are inviolable (yes, even in open systems and

those far from equilibrium), making systems tend toward disorder. Information theory shows that communications are more likely corrupted by natural causes, like interference and static, rather than generated or improved. Clearly, the burden of proof is on the evolutionist to overcome the hurdles erected by these robust laws of observational science.

To persuade philosophers or logicians that the origin of life problem is tractable with reference to natural causes alone, evolutionists need to establish at the outset that it is in the same class of problem as explaining lightning or magnetism. After all, these were considered occult forces by many in the past. Magnetism, electricity and other examples of naturally-solved problems, however, exhibit a fundamental difference: they are observable in the present, and subject to testability and repeatability in the lab. The origin of life, by contrast, was a one-time event that was not observed by humans; evolutionists admit this. Even if biochemists find a way to coax molecules to self-assemble into some sort of self-replicating entity in the lab, they could never prove that's the way it *did* happen on the early earth; they could only assert that something similar *might* have happened. Opponents, however, will undoubtedly criticize any successes as due to investigator interference. Coaxing molecules to self-assemble commits the [self-refuting](#) fallacy, because it applies intelligent selection to get results that were supposed to come about without help from intelligent design. We're being very magnanimous here. Anyone who has followed the chemical evolution literature knows that biochemists face extremely daunting challenges, to put it mildly (see [02/20/2004](#) entry and [online book](#)). Throwing money at the problem is likely to be as futile as gambling on a race horse that is blind, deaf and crippled next to the ID Seabiscuit.

We know a lot more now about the gap between chemicals – RNA, lipids, sugars and minerals – and the most primitive living organism ([02/15/2004](#)). We understand better the minimal requirements for life. Even at a hypothetical level, evolutionists cannot realistically imagine considering anything alive that did not have, at the very least, a container, a metabolic system, and a genetic code – each of which is extremely problematical to obtain from plausible natural conditions ([08/26/2003](#)). Moreover, the requirement for water [12/30/2003](#) and carbon is universally acknowledged, setting constraints on the environmental conditions, and few would dally with models that did not include RNA and DNA – both highly improbable to emerge or survive under natural conditions. Then there's the problem of homochirality (see [online book](#)), getting molecules to be all one-handed – and these are just samples on a long list of difficulties. That's why most of the hope stirred up in the heyday of Miller, Sagan, Ponnampetuma and others has been abandoned (except among TV animators) as reality has set in. One well-known researcher recently admitted that the problems are almost enough to turn one into a creationist ([11/05/2004](#)). Ribose, he said for instance – a basic ingredient of RNA (the evolutionists' favorite starting molecule) – is hopelessly unstable except in a desert with boron keeping it from falling apart – yet most other researchers require RNA to be abundant in water when life formed. Another said we need to start over with simpler hypothetical molecules because the ones we know don't work; her own research showed that amino acids degrade with hours under solar radiation ([01/28/2005](#), [05/18/2005](#)), but the other argued that one cannot keep changing the basic molecules without causing other problems. If the situation is so hopeless now, and getting

worse, despite all the latest lab techniques, at what point will the chemical evolutionists decide that discretion is the better part of valor? Dean Kenyon did, after all, and now embraces intelligent design as the only plausible explanation.

The quest for the chemical evolution holy grail continues largely on the assumption that science *must* seek natural explanations for things (see [quote by Lewontin](#)). But excluding intelligent causes by definition makes no sense in archaeology, forensics, cryptography and SETI, so why exclude them from biology? The very same methods used in these other scientific activities can be used to infer design in a living cell. Would it be reasonable to study the origin of Mt. Rushmore by first ruling out sculptors, and restricting one's explanatory toolkit to wind and erosion? The mountain is a "natural" phenomenon, in the sense of being made of rock, but the essence of the sculpture is not the rock but the design. Similarly, the essence of a language is not the paper and ink, nor the electrons hitting your terminal screen, but the structure, syntax, and semantics of the message conveyed by an intelligent agent. What is the difference with DNA? DNA's function is not derivable from the sugars, phosphates and nucleotides of which it is composed, but rather from the meaningful sequence of the bases. The specific sequence cannot be predicted from first principles, yet it is not random, because it produces function. Moreover, that information is translated by molecular interpreters from one language convention into another, entirely different code: the protein code of amino acids. More astonishing, to guarantee the message is not garbled, the cell constantly monitors its information database with error-correction and editing machines. This underscores the realization that DNA is, in fact, a language. It's not just a metaphor that scientists speak of DNA as the "language of life"—that's really what it is. The comparison to computer programming is even more apt. The scientific literature is replete with references to molecular machines, functioning harmoniously in robust networks programmed by codes written on informational macromolecules; on top of everything else, it now appears that DNA is a code regulated by another level of information.

The essence of life is **information made flesh** ([06/25/2005](#)). Information is the calling card of intelligent design. From our uniform experience, every coded language comes from a mind. If natural causes did not produce the Morse Code, or ASCII, why should anyone assume they could have produced the DNA code? It is futile to account only for the chemicals when information is the characteristic ingredient. The logical approach to understanding a Rosetta Stone is not to examine the minerals in the substrate, or tell stories about how they might have coagulated into the shape of the stone with all its markings. The logical approach is what Champollion did with the [Rosetta Stone](#): decipher the message with the presupposition that an intelligent messenger, whoever it was, produced it with a purpose. The only reason evolutionists abandon this approach in biology and reject the clear design inference is their philosophical bias. The result is a vain trust in inadequate causes.

The quest for a natural explanation of life's origin is reminiscent of the contest between Elijah and the Baal worshippers on Mt. Carmel (see [I Kings 18](#)). It would be interesting to see the expense report from the priests of Baal. They certainly had the advantage of numbers, for one thing, and must have thrown a lot of resources and effort into the contest with Elijah. Their efforts bear some similarity to today's contest to get the fire of life started naturalistically, by force of hubris and commotion. There's

the [bluffing](#) element: “we can do it without divine intervention.” There’s the shotgun approach of trying a lot of different methods ([02/06/2005](#)). There are the empty promises that they will figure it out in due time (futureware), or that it’s not that big a problem ([sidestepping](#); see [08/05/2005](#)). All such tactics resemble the bravado of the priests of Baal. On the defensive side, they can always fall back on the accusation that intelligent design is not science. This [equivocation](#) is as arbitrary as if the priests of Baal were to disqualify Elijah’s method because it was not polytheistic.

Elijah had a strategy of his own. He let the priests of Baal do their best. He gave them all day to shout, dance, pray, weep, cut themselves and collapse. By sundown, after they were all bleeding and panting from their doomed efforts, Elijah calmly gave a simple invocation to the adequate cause. The fire not only came instantly, it “consumed the burnt sacrifice, and the wood and the stones and the dust, and it licked up the water that was in the trench.” This overkill demonstrated to everyone the contrast between adequate and inadequate causes. That’s why the intelligent design movement doesn’t need to throw a million dollars a year, nor a large number of priests making a lot of racket, at the question of the origin of life. It doesn’t need a consensus, and it doesn’t need compromise. As an old preacher once said, “you and God make a majority in your community.”

Next headline on: [Origin of Life](#) • [Intelligent Design](#)

Evolution vs. ID: This Means War 08/13/2005

President Bush’s mild off-the-cuff remarks about students needing to hear alternatives to evolution (see [08/02/2005](#)) set off a firestorm of reaction pro and con in the media. Get your ringside seat here for the war of the words:

- **Mad Scientists:** *Nature*, as reported this week ([08/10/2005](#)), expressed outrage at the President’s remarks – a reaction fairly uniform across the leadership of scientific institutions thus far (e.g., AAAS, [07/11/2005](#), NAS, [03/24/2005](#)). Mark Bergin in *World Magazine* calls them Mad Scientists. In an editorial in the same issue of *World*, Joel Belz portrays them as unhappy warriors and grumpy spoilsports, ruining the experience of enjoying a snowflake or a flower with their stubbornness against considering the possibility of design. He contrasts their attitude with the President’s generosity and openness over the issue.
- **Catholic Counter-Reformation:** Alarmed at the possibility that the Roman Catholic Church might be backpedaling on its tacit acceptance of evolution because of a statement by a Viennese cardinal that the church does not accept neo-Darwinism, Constance Holden in *Science* (309:5737, 12 Aug 2005, pp. 996-996) highlighted the remarks of the Vatican Astronomer who defended evolution. But as she points out, it is not at all clear where the new Pope stands on the issue. “Meanwhile,” she ends, “**defenders of evolution** are still **lamenting** a comment last week by a vacationing **President George W. Bush**, in response to a reporter’s question, **suggesting** that public schools should teach students about intelligent design (*Science*, 5 August, p. 861). Groups representing biologists, astronomers, and science teachers, among others, have shot off letters to the White House **expressing their dismay.**” (Emphasis added in all quotes.)
- **Jewish Lethargy:** David Klinghoffer, writing for *Discovery Institute News*, can’t figure out why his fellow Jews are not rising to the occasion. They are remaining “curiously abstracted and irrelevant” over the conflict between evolution and intelligent design, behavior that is “a departure from our own tradition of engagement with scientific and theological

questions of just this kind.” He admonishes them with the words of 12th-century Jewish philosopher Maimonides who, in his day, had to deal with the implications of compromise in a different intellectual battle over Aristotelian philosophy. Both Aristotle and Darwin, Klinghoffer argues, threatened Judaism at its root and soul by denying a divine creation.

- Utah Raptor: According to [Science Daily](#) and [Deseret News](#), Utah Senator Chris Buttars wants ID in his state, and if the evolutionists won't give in, he is going to write legislation to force a compromise, even if it means ID will be taught in philosophy instead of biology. He has been besieged by calls and emails from parents complaining that their children are being taught as fact that they evolved from apes.
- Back in Kansas Again: John Calvert is optimistic about the new science standards that were voted in last week ([08/10/2005](#)). He brushed off an accusation by his nemesis Pedro Irigonegaray that he had led the ID hearings without a license to practice law in Kansas. Calvert considered it a technicality that did not matter, because the school board hearings were not a court of law. He believes the new standards will liberate teachers who are afraid to talk about evolution because of the controversy.
- Everybody's Right: Peter Wood, writing in [National Review Online](#), gave “thumbs up” to President Bush, but is trying to see the good on both sides. “This battle is unnecessary and intellectually irresponsible,” he claims, calling for modesty and restraint, because both sides have something to contribute. The problem with doctrinaire evolution is its insistence on randomness, he says; with a little ID in the mix, we can all get along. As to civility, he finds that “Ironically, the Creationists have come out of this recent round of controversy sounding far more open-minded than some of the scientists and the hard-core secularist advocates of Evolution-and-Nothing-But.”
- Sloppy Reporting: The [EvolutionNews](#) blog of the Discovery Institute had a lot to complain about this week. Reuters, Nightline and CNN all got it wrong, they argue. “Rather than cover the substance of the intellectual debate over design, all Nightline could do was act as the mouthpiece for ID-bashers like Barbara Forrest,” EvolutionNews complained, so [Discovery Institute](#) published the complete transcript of the pre-recorded interview with ID spokesman Dr. Stephen Meyer, including all the parts Nightline left out.
- Hardball: Chris Mathews had Bruce Chapman (ID) vs. Eugenie Scott (evolution) face off, Jim Lehrer had Michael Behe vs. Lawrence Krauss with John Calvert, Steven Case and other principals in the Kansas debate, and newspapers around the country carried stories about ID, evolution, and education.
- Turncoats in the Ranks: A recent poll, reported by [LiveScience.com](#) and [EurekAlert](#), showed that belief in God among scientists varies starkly by discipline. Contrary to expectations, the poll of 1,646 faculty members revealed that social scientists were more likely to practice religion than natural scientists. Follow-up interviews may be needed to interpret the findings, but neither class was predominantly atheistic: only 38% of natural scientists and 31% of social scientists. Even among biologists, only 41% denied belief in God, compared to 27% among political scientists.
- Foul Retreat: [Discovery Institute](#) called chicken on Richard Dawkins for his ducking out of an NPR debate against ID senior fellow George Gilder at the last minute, but criticized NPR for giving the last word to another Darwinist instead of demanding accountability from Dawkins.
- No Compromise: Al Mohler, president of Southern Baptist Theological Seminary, was highlighted by [Religion Journal](#) for his appearance in *Time* with its cover story on the “Evolution Wars” ([08/02/2005](#)). He explained why “Evangelical Christianity and evolution are **incompatible beliefs that cannot be held together logically** within a distinctly Christian

worldview.”

These are just a few samples from the news media in the past week. Probably at no time since the Scopes trial has the nation been so riveted on the E word, and who will determine what students are taught about human origins: the chance wanderings of apes, or a purposeful life.

We are living in momentous times. No, not because of war, the cost of gasoline or the debate over climate change, but over the heart and soul of science. The party that rules science (i.e., knowledge) rules the world. Is this the verge of the collapse of the Age of Darwin? Or will Big Science succeed in forcing a naturalistic imprimatur on all scientific endeavor? Will Darwinism remain immune from criticism, or has the crack opened for the wedge? Will the ID challenge succeed, or will its leaders tire and retreat into oblivion because of the relentless attacks by the scientific elites? Not long ago – for over a century – Big Science ignored creation arguments, sloughing them off as irrelevant and irrational, merely religiously motivated pseudoscientific nonsense (not that they were, but Darwinists had amassed enough power to coast on bravado). Its power never seriously threatened, it sufficed to wave the challengers off, like pesky mosquitos, with a few memorized vituperations, which were duly broadcast by the lapdog media. No longer. The Darwin Party’s champion is roused, and he is angry. ID’s stone has hit its mark, but did it hit it hard enough? And will the army rally if he falls, or be satisfied to cut and run with a peace treaty?

It is essential that each citizen get the information straight. Some reporters are fair; some try hard to accurately characterize each side’s position. Many, though, fail to do their job as journalists with a nose for news. They fail to fight past power and prestige to get to the heart of the matter. The same reporters who will mercilessly pepper a President with hard-hitting questions become sloppy and lazy when sitting at the feet of Scientists, acting like toadies before the Establishment, reproducing verbatim the talking points and [slogans](#) of the Darwin Party. With so many biases flying around, it is essential to learn the art of [baloney detecting](#). You must train yourself in the art of sifting out the salient points from the mass of verbiage on both sides. Here at *Creation-Evolution Headlines*, there is color commentary to be sure, but you also have the chance to hear extended quotes from the top spokespersons, and you can always follow the links to the original sources and read them yourself if you disagree or have doubts about the validity of the reporting or commentary. There is no excuse not to be informed. (Take note, though, of the people who want you to hear both sides, and the ones who don’t.)

But why bother? Simply, because of everything in the world. The world and all it contains was either designed for a purpose, or it evolved on its own. You are either a product of intelligent design, and you have a purpose and a destiny for being here, or you are the end result of a long chain of accidents. Get enough people believing either position and the ramifications for society are enormous. Think about abortion, the definition of marriage, sexual promiscuity, crime, the arts, law, judicial philosophy, the Supreme Court, the Constitution, medical ethics, end-of-life decisions, economic philosophy, the war on terror and all the other facets of life in 2005 that affect everything from the integrity of our political leaders to how the neighbors behave at the soccer field. Now, think

about how Darwinism vs. ID weighs in on these subjects. Nothing could be more black and white. The Darwinists teach that altruism, unselfishness, music, artistic expression, family ties, sexual fidelity, love and the very mental processes of the brain are illusions, mere emergent properties of matter in motion, without essential meaning. Worse, they routinely explain away murder, rape, war, terrorism and other behaviors as evolved strategies honed by natural and sexual selection. As such, they are not evil, just useful to one or the other players, whoever is “fittest,” whatever that means.

. Do you want to live in a world that really believes that in its heart of hearts? Does the scientific evidence support that view? Are you prepared to believe that what you are thinking right now has no validity, and that all the complexity and beauty of nature is the end result of an explosion of particles? Take a good look in the mirror and decide what you are looking at, because we are at a crossroads. Pick your future world: planet of the apes, or God’s green Earth. Let’s choose a path for which our children will bless us, and will thank us for our insight, integrity, and – indeed – our courage.

Next headline on: [Intelligent Design](#) • [Evolution](#) • [Politics and Ethics](#) • [Education](#)

Plant Communication: How Leaf Calls Bud 08/12/2005

Plants communicate with themselves in email ([07/13/2001](#)), and the messages are being hacked by scientists. Miguel Blázquez, writing in *Science*,¹ discussed three recent studies that help solve the problem of how a plant, without a nervous system, buds into flowers all at once. Two of the studies describe a couple of proteins that, working in concert, turn on the budding process. “The third paper by Huang *et al.* in this week’s Science Express,” he writes climactically, “reports how the two factors meet—FT transcript **travels from leaf to shoot via the plant vascular tissue**” (emphasis added in all quotes). This is just one example of a widespread phenomenon. “Indeed, **long-distance movement of RNAs through the phloem has been well documented in plants**,” he writes.

Robert Roy Britt has written a popular account of this research on [LiveScience.com](#). See also the [Max Planck Society](#) press release about a related study.

¹Miguel A. Blázquez, “The Right Time and Place for Making Flowers,” *Science*, Vol 309, Issue 5737, 1024-1025, 12 August 2005, [DOI: 10.1126/science.1117203].

This is just too cool. Imagine— plants communicating via microscopic packets of information through their vessels. You thought those tubes just carried water and nutrients from the soil. Had you any idea that, included in that oozing sap, was all kinds of coded information? Think of it: plants invented TCP/IP before man did. To Comprehend Plants / Information Processing.

Next headline on: [Plants](#) • [Amazing Stories](#)

Dinolava Theory Back in Eruption 08/12/2005

Meteor impact or volcanic eruption? [Science Now](#) reports that the volcano theory of dinosaur extinction has rejuvenated, challenging the long popularity of the Chicxulub impact hypothesis.

Notwithstanding all the dramatic animations on science documentaries of a cataclysmic meteor wiping out the dinosaurs, the article by Carolyn Gramling states that “Scientists have long wrangled over the cause of the extinctions....” A new French study of magnetic alignments of lavas in the Deccan Traps of India, some of the biggest lava fields in the world, suggests that the cataclysmic

eruptions occurred over a much shorter time period than previously believed – 30,000 years instead of millions – short enough, they claim, to affect worldwide climate. Some of the older eruptions may have happened even more rapidly because there is no evidence of weathering between successive layers.

A Dutch proponent of the impact scenario is not convinced, however. He said we don't know enough about behavior and variability of the Earth's magnetic field to make strong arguments based on magnetic alignments in rocks. Gramling says, "He also questions whether any known geophysical mechanism could have spewed out so much lava in such a short time."

Readers, take note: the Science Channel and all the documentaries present their scenarios as fact, and try to make them seem so certain that all scientists agree. The dating of events, especially, is rarely if ever questioned. Here, one side is claiming that the old dates of the Deccan Traps are wrong; the other side is questioning whether we can tell anything from magnetic alignments (even though they are commonly used to convince the viewing public of the precision of dating methods). Since, in the above article, neither theory overlaps the other (see [10/01/2003](#) entry), each must independently make its case. Do you begin to get the idea that neither side knows what on earth they are talking about? Good. Your eyes are open.

We need to realize how little we can *know* about prehistory by empirical methods (cf. [11/05/2003](#)). We need to acknowledge to what extent the data are subject to being molded to human interpretations and presuppositions. Data exist in the present, not the past (visualize this). Scientists build models to incorporate the present observations, but short of a time machine or eyewitnesses ([02/17/2003](#) commentary), the past is forever out of reach, and getting more so all the time. This is not to overlook that some models are more plausible than others (cf. [04/22/2004](#)). But while seemingly plausible now, today's leading model can be (and often is) overturned with the next finding. The Chicxulub story attained such a consensus in recent years as to be nearly enshrined as The Official Story of the Death of the Dinosaurs, but now look; it's got major problems ([04/10/2003](#), [09/25/2003](#), [11/25/2003](#)). Reporters, TV producers and writers of children's books have not, for the most part, caught up with this development (see [05/13/2004](#) example), but it is another case of a popular model becoming a has-been. Such turnarounds litter the history of science. Writing with an air of certainty about prehistory, therefore, mars otherwise good books like *The Privileged Planet* (e.g., pp. 22ff) that speak of events in the unobservable past, including magnetic field signatures, as if recorded on steadily-moving tape to be just read off by the unbiased eyes of scientists. The Dutch critic here reminds us that we know too little about planetary magnetic fields to speak so confidently. That goes for other dating methods as well. Discerning minds do well not to attribute infallibility to mortals.

As we have pointed out before ([10/06/2004](#) commentary), it is much safer to play conservative and not extrapolate observed measurements recklessly into the past. It is easier to set *upper limits* on time than *lower limits*. For example, estimating the lifetime of a comet into the past by a few more orbits than have been observed is reasonable, but claiming it came into existence a million years ago extends the observations far beyond human experience. The former stretches *observed* behavior a little way back; the latter *extrapolates* a few data points into unknown territory by many orders of magnitude. Who knows what perturbations might have changed the orbit before we observed it? It's more justifiable to project how long the comet might last

given its present rate of mass loss (an upper limit), than to claim it has had to exist for at least umpty million years (a lower limit). In the current case, the lack of weathering between layers would seem to place an upper limit to the amount of time that must have transpired during the sequence of eruptions. An upper limit is, of course, a limit; the actual age could have been much lower. For more examples, see [05/01/2004](#) story about tufa formations, and the [05/10/2004](#) article about caves.

The admission about whether any known geophysical mechanism could have spewed out so much lava in such a short time is revealing. Whatever happened to uniformitarianism? (Notice: it's gone; catastrophism rules—see [11/04/2003](#) and [05/22/2003](#).) But don't let these guys puzzle about that problem only here at home. Have them tell us why big eruptions should be happening right now on Io ([05/04/2004](#)), Triton ([06/05/2003](#)), Titan ([06/09/2005](#)) and Enceladus ([07/29/2005](#)) after billions of years, each of them smaller than the Earth (and therefore possessing less gravitational heat), or why comets should still be erupting after so many trips around the sun ([03/27/2003](#)). It's not that the moyboys* can't concoct a good story, but to do so, they must keep inserting ad hoc assumptions to keep processes going that would otherwise fizzle out in far less time. In today's case, we see two sides (both naturalistic and evolutionary) undermining the credibility of each other's tale. The proper lesson is that neither idea can be trusted, and neither side *knows* what happened, because they weren't there.

*A new word meaning scientists and reporters who toss around the terms *millions of years*, *billions of years* with reckless abandon.

The upshot is that, despite all the appearance of scientific rigor, the measurements and jargon, neither story explains the extinction of the dinosaurs, or why some organisms carried on through the catastrophe as if nothing happened ([11/08/2004](#)). A corollary is that any sufficiently advanced model resting on uncertain premises is indistinguishable from a novel. After all, a good novel usually takes place in the real world and deals with observable, tangible things. Some novels even describe historical personages and places in exquisite detail (cf. the detailed measurements of magnetic field orientations in *present-day* rocks). It does not follow that the events described ever happened, or even if they did, that they happened when the believer claims they happened, or in the way they happened, or that nothing else happened that might bear on what happened. Another corollary is that a newer model is not necessarily better. A fancier mansion built on the same shifting sand has the same underlying vulnerability (see [05/13/2004](#)). It is a specious response, therefore, to retort, "Well, then, what is *your* model?" Some choose not to build on the sand, but on the rock.

Next headline on: [Dating Methods](#) • [Geology](#) • [Dinosaurs](#)

What's On the Agenda? Kansas Votes in New Science Standards 08/11/2005

[Science Now](#) (from the American Association for the Advancement of Science, publisher of *Science* magazine) reported that Kansas voted 6-4 to adopt the new science standards yesterday that "allow for the teaching of alternatives to evolutionary theory." It alleged that "scientists" (unspecified by name or number) say that the new draft standards are "a thinly disguised attempt to slip intelligent design (ID) into the science curriculum."

The brief report admits that the standards do not mention intelligent design (ID); it only calls for students "to learn about the best evidence for modern evolutionary theory, but also to learn about areas where scientists are raising

scientific criticisms of the theory.” To anti-ID professor Steve Case, though, the intent is implicit: the draft is “is littered with language that is routinely used by intelligent design advocates.”

Case was also concerned that the change in definition of science from seeking “natural explanations” to using “observations, hypothesis testing, measurement, experimentation, logical argument and theory building to lead to more adequate explanations of natural phenomena” opens the door to inserting supernatural explanations into science (see [05/18/2005](#) entry).

The report recalls that the six days of hearings in May were boycotted by scientific organizations “on the grounds that the board was simply trying to confer scientific legitimacy to ID” (see [04/21/2005](#) story). Last week, *Science* magazine in its Random Samples section¹ mentioned that anti-ID historian Niall Shanks called this a “huge mistake,” a criticism that riled Steve Case. Shanks just joined the philosophy department at Wichita State, “ground zero for the creationism movement,” although he claims the controversy is not what he is interested in; he “may extend his work from the study of biological self-organization and complexity into the philosophy of medicine.”

[Access Research Network](#) posted an analysis of the new Kansas science standards. After an external review, they will go into effect this fall.

¹Random Samples, *Science*, Volume 309, Number 5736, Issue of 05 August 2005.

The picture of Niall Shanks posted in *Science* makes him look like a pouting loser, but maybe that is his ordinary expression. The Darwin Storytelling Festival is coming to an end, and now scientists will have to work for a living: they will have to do science the old-fashioned way, using “observations, hypothesis testing, measurement, experimentation, logical argument and theory building to lead to more adequate explanations of natural phenomena.” For loafers reclining on couches entertaining “tantalizing speculations” (see [12/22/2003](#) commentary), they will have to learn a new word: rigor. It will be like making bums work for their welfare checks.

The Darwinists give nuance to the word paranoia. Read the standards: is there anything said about supernaturalism? Is there any mention of intelligent design, a Designer, Genesis, God, or creationism? On the contrary, the standards *explicitly* call for students to learn about the *best* evidence for modern evolutionary theory. There is no such explicit call for creationism or ID; the Darwin Party thus already has a big advantage. The thing that is frightening them into paranoia is the accountability. Now, for the first time, students will get to hear about “areas where scientists [not theologians] are raising scientific [not religious] criticisms of the theory.” The Darwin Playstation Game now comes with a warning label. Student customers in the Darwin Store can only buy the Darwin product, but the label will also mention the fact that some in the manufacturing division have grave concerns about it. Students might also learn (gasp) about the existence of other stores with products that work better. Darwin Marketing doesn’t want accountability, and it doesn’t want competition. Sorry, science is about freedom of inquiry.

Teachers newly empowered by the standards will find plenty of “scientists... raising scientific criticisms” of evolution. Welcome to the back issues of *Creation-Evolution Headlines*, with over 600 entries on evolutionary theory, most right out of leading science journals over the last five years. So— teachers, click away and have at it. You can [start here](#) or [here](#) and work back for much, much more, and use our handy-dandy [Evolution Curriculum](#) as an outline.

Next headline on: [Intelligent Design](#) • [Evolution](#) • [Education](#) • [Politics and Ethics](#)

Nature Rallies Troops Against I.D. to the Defense of “Science” 08/10/2005

“President Bush’s endorsement of ‘intelligent design’ has sparked a national debate in which scientists are well positioned to prevail,” editorialized *Nature* this week,¹ with the rallying-cry title, “Keeping religion out of science class.” This editorial, along with a news item by Virginia Gewin, “Scientists attack Bush over intelligent design,”² was prompted by President Bush’s off-the-cuff remarks last week that students should be allowed to hear alternative views to evolution (see [08/02/2005](#) entry). Both articles reiterated common themes of those opposing the intelligent design (ID) movement: ID is not science, ID is religiously motivated, ID is “creationism” in disguise, all scientists reject ID and creationism, and ID is not just anti-evolution but anti-science and anti-reason. The editorial went beyond these oft-stated arguments. It challenged the scientific to rise up and fight this “attack on science” with the encouragement, “The fight will go on – but science and reason can ultimately win.”

¹Editorial, “Keeping religion out of science class,” *Nature* 436, 753 (11 August 2005) | doi: 10.1038/436753a.

²Virginia Gewin, “Scientists attack Bush over intelligent design,” *Nature* 436, 761 (11 August 2005) | doi: 10.1038/436761a.

Noticeably absent from this pep talk was any defense of Darwinism and evolutionary theory in general. Big Science and the Darwin Party seem to know that it would be a losing fight to prop up Charlie’s decaying corpse before the public, so they are sticking to what they feel will be a winning strategy for maintaining their power. Since “science” is a sacred cow in our society, they assume all the Untouchable masses will genuflect before it, even if it is just a stuffed cow. So the strategy is to portray ID promoters as beefeaters who want to slay the bovine, and to play the role of Savior of the Sacred Cow. Knowing that the masses will rally to a fight, even if they don’t understand the cause of it, they portray their mission in terms of holy war: we must protect the Sacred Cow from those evil beefeaters.

This is so silly. On the Dennis Prager radio talk show today, Dr. Rodney Stark (social sciences professor at Baylor University), author of a new book [For the Glory of God](#), claimed that college students have been fed a bill of goods about the church, science, the Dark Ages, the Enlightenment and the alleged war of science vs. religion. With evident chagrin in his voice, he stressed that the true social history of science was not that way at all. He said that every serious academic knows that Christianity gave birth to modern science (see [online book](#)), and that many great scientists were deeply religious individuals who were motivated to do science for the glory of God. The [either-or fallacy](#) of science vs. religion is a myth. Several times he emphasized that this is beyond dispute by historians and professors; he said that most of his fellow academics in the historical and social sciences gave his book, which documented this fact, favorable reviews. Why, then, does *Nature* and all the anti-ID crowd get so unglued when anyone hints that there really might be a Designer?

Nature came into existence right as Darwinism was on the ascendency in Britain, for the purpose of promoting the new anti-religious, naturalistic world view (a largely politically-leftist, anti-establishment, Victorian-progressive fad). We call to the witness

stand an eminent scientist of that same period whose *actual achievements* in science (not just speculations) easily outshone those of Darwin, Lyell, and Huxley combined. When James Clerk [Maxwell](#) heard President [John Tyndall](#) promoting the new materialism and Darwinism to the [British Association](#) in 1874, the eminent scientist erstwhile poet took up his poison pen to satirize the folly of the materialistic, evolutionary position and the self-refuting belief that minds could emerge from matter in motion. His trenchant words speak for themselves. They should be carved in stone at the entrance to *Nature's* corporate offices:

British Association, Notes of the President's Address

In the very beginnings of science, the parsons, who
 managed things then,
 Being handy with hammer and chisel, made gods in
 the likeness of men;
 Till Commerce arose, and at length some men of
 exceptional power
 Supplanted both demons and gods by the atoms, which
 last to this hour.
 Yet they did not abolish the gods, but they sent them
 well out of the way,
 With the rarest of nectar to drink, and blue fields of
 nothing to sway.
 From nothing comes nothing, they told us, nought
 happens by chance, but by fate;
 There is nothing but atoms and void, all else is mere
 whims out of date!
 Then why should a man curry favour with beings who
 cannot exist,
 To compass some petty promotion in nebulous
 kingdoms of mist?
 But not by the rays of the sun, nor the glittering shafts
 of the day,
 Must the fear of the gods be dispelled, but by words,
 and their wonderful play.
 So treading a path all untrod, the poet-philosopher sings
 Of the seeds of the mighty world—the first-beginnings
 of things;
 How freely he scatters his atoms before the beginning
 of years;
 How he clothes them with force as a garment, those
 small incompressible spheres!
 Nor yet does he leave them hard-hearted—he dowers
 them with love and with hate,
 Like spherical small [British Asses](#) in infinitesimal state;
 Till just as that living [Plato](#), whom foreigners nickname
 Plateau,
 Drops oil in his whisky-and-water (for foreigners
 sweeten it so),
 Each drop keeps apart from the other, enclosed in a
 flexible skin,
 Till touched by the gentle emotion evolved by the
 prick of a pin:
 Thus in atoms a simple collision excites a sensational
 thrill,
 Evolved through all sorts of emotion, as sense,

understanding, and will;
 (For by laying their heads all together, the atoms, as
 councillors do,
 May combine to express an opinion to every one of
 them new).
 There is nobody here, I should say, has felt true
 indignation at all,
 Till an indignation meeting is held in the [Ulster Hall](#);
 Then gathers the wave of emotion, then noble feelings
 arise,
 Till you all pass a resolution which takes every man by
 surprise.
 Thus the pure elementary atom, the unit of mass and of
 thought,
 By force of mere juxtaposition to life and sensation is
 brought;
 So, down through untold generations, transmission of
 structureless germs
 Enables our race to inherit the thoughts of beasts,
 fishes, and worms.
 We honour our fathers and mothers, grandfathers and
 grandmothers too;
 But how shall we honour the vista of ancestors now in
 our view?
 First, then, let us honour the atom, so lively, so wise,
 and so small;
 The atomists next let us praise, [Epicurus](#), [Lucretius](#),
 and all;
 Let us damn with faint praise [Bishop Butler](#), in whom
 many atoms combined
 To form that remarkable structure, it pleased him to
 call—his mind.
 Last, praise we the noble body to which, for the time,
 we belong,
 Ere yet the swift whirl of the atoms has hurried us,
 ruthless, along,
 The British Association—like Leviathan worshipped
 by [Hobbes](#),
 The incarnation of wisdom, built up of our witless
 nobs,
 Which will carry on endless discussions, when I, and
 probably you,
 Have melted in infinite azure—in English, till all is
 blue.

James Clerk [Maxwell](#), 1874

But on second thought, this kind of biting satire might be over their heads; they might even find it supportive of their position. Would the corporate *Nature*-alists realize that the joke was on them?

Next headline on: [Intelligent Design](#) • [Politics and Ethics](#) • [Education](#)

What Do You Get When You Cross a Lion with a Tiger?

08/10/2005 —

A liger, that's what. No kidding: you get a big cat with a mane and faint stripes that likes to play in the water. [National Geographic News](#) has a special article, with photos, about ligers.

This is offered without much comment, just for those who want to learn about something unusual in the animal kingdom, and what it means about species, taxonomy, genetics, etc. A mule is another example of this kind of thing.

Some of our readers pointed out a statement in the article that qualifies for nomination as *Stupid Evolution Quote of the Week*: “Lion-tiger mating occurs in captivity. But it does not happen in the wild, probably for the same reason humans do not breed with gorillas or chimps.” Don’t visualize that, now; is *NG* suggesting that bestiality is wrong only on pragmatic grounds? Don’t tell the Koreans or they will want to experiment with this. Pretty soon there will be debates about humilla rights. Better keep certain people out of the primate cages in the San Francisco Zoo. Aside from ethical amorality, *NG* seems to be assuming, without warrant, that such a thing is even biologically possible, or on the same level as liger or mule hybridization. It makes an implicit Darwinistic assumption that the line between humans and chimps is blurry.

The next paragraph mentions a biological reason that is not helpful for Charlie’s little story: “‘Crossing the species line’ does not generally occur in the wild, because ‘it would result in diminished fitness of the offspring,’ said Ronald Tilson, director of conservation at the Minnesota Zoo in Apple Valley.” Well, there you have it. Fitness is maintained by living things reproducing after their kind. Even staunch creationists accept diversification within created kinds. A liger represents a blending of pre-existing characteristics, not the origination of new ones. Turn ligers loose in the wild and they would probably revert to the parent forms, or go extinct. There is enough genetic variability within the *Felidae*, however, to account for a fair amount of the diversity seen in today’s cat populations since the creation. Habitat differences can sort out characters, creationists agree. They just deny that environments make cats “emerge” from mythological precats or protopussies.

Next headline on: [Mammals](#) • [Genetics](#)

Planetary Wanderings 08/09/2005

Here are news briefs that are out of this world:

- **Death Star Sighted:** On August 2, the [Cassini Spacecraft](#) took the best-ever pictures of [Mimas](#), the little moon of Saturn with a huge crater [Herschel](#) that makes it look like the Death Star from Star Wars. Why this little moon should be one of the most heavily cratered objects in the solar system, when nearby Enceladus is not, is a mystery.
- **Aurora at Saturn:** Saturn put on a light show for Cassini, reported press releases from [Jet Propulsion Laboratory](#) and [University of Colorado](#). The planet’s own version of aurora australis was viewed from a better angle at more wavelengths recently, and was portrayed in lovely aqua blue against the butterscotch planet’s south pole.
- **Mars Too Deadly for Human Travel:** Damping ancient dreams of humans walking on Mars some day, [National Geographic News](#) reported that “space weather” (solar radiation) could be too dangerous to make a manned mission feasible. A solar flare storm like those seen in recent years (see [11/06/2003](#) entry) could be like placing astronauts in the path of nuclear explosions millions of times more powerful than those made by man. Unless some new method of shielding is devised, politicians and managers may consider it too risky to send humans into the cosmic shooting gallery for years at a time. A powerful storm missed Apollo astronauts by just months in 1972. Even if humans survived the 9-month

flight to the red planet ([10/01/2002](#)), the Martian surface environment does not offer the same protection as Earth (see [08/07/2003](#) entry). See also the press release from [University of Warwick](#).

- **Titan Is Dry as a Bone:** Contrary to earlier predictions ([10/16/2003](#)), R. A. West *et al.* wrote in *Nature*¹ that the lack of specular (mirror-like) reflections from Earth-based radar echoes indicates that Titan (Saturn's largest moon) lacks global oceans. The [BBC News](#) took this to mean that Titan is as dry as a bone. Even the sighting reported near the south pole makes the lake interpretation seem unlikely.
- **Enceladus Is Hot Topic:** *Science*² took note of the announcement of cryovolcanism on Enceladus ([07/14/2005](#)). Richard Kerr wrote, "the close-up encounter has only deepened the mystery of how a body as small as Enceladus can come up with enough energy for such an active geologic life." Treating it as a special case is "uncomfortable" to planetary scientists. Leaving the solution as a mystery, Kerr concluded, "Theoreticians will have to redouble their efforts to hammer out a moon they can live with."
- **Mars Soil Mystifies:** *Science*³ published a story by Amos Banin, "The Enigma of the Martian Soil," that suggested we still know very little about the Martian surface, even since Viking, Pathfinder and Mars Exploration Rovers have studied it up close. Though we have more data, we have new questions.
- **Mars Traffic Jam:** Add a fourth spacecraft to the orbital speedway around Mars. The new [Mars Reconnaissance Orbiter](#) (MRO) launched successfully Thursday morning, August 11, carrying the biggest camera ever launched to the red planet. It should be able to see objects the size of a card table on the surface when it begins its primary science mission in November 2006, and can transmit 10 times as much information per minute as previous orbiters. A flood of high-res photography is coming. MRO will provide several times as much data about Mars as all previous missions combined, said project manager James Graf.

¹R. A. West *et al.*, "No oceans on Titan from the absence of a near-infrared specular reflection," *Nature* 436, 670-672 (4 August 2005) | doi: 10.1038/nature03824.

²Richard A. Kerr, "Cassini Catches Mysterious Hot Spot on Icy-Cold Enceladus," *Science*, Vol 309, Issue 5736, 859-860, 5 August 2005, [DOI: 10.1126/science.309.5736.859a].

³Amos Banin, "The Enigma of the Martian Soil," *Science*, Vol 309, Issue 5736, 888-890, 5 August 2005, [DOI: 10.1126/science.1112794].

The Enceladus-Mimas dichotomy may force scientists to re-examine assumptions about cratering rates. If impactors flying around the solar system do not pummel nearby objects equally, then either some moons are able to cover the craters, or the impactors are not randomly distributed. Cratering rates are commonly assumed in determining ages of surfaces. If you cannot constrain the density and frequency of impactors, and if the weathering processes are not well known, then crater-count dating is an exercise in guesswork.

Planetary scientists will have to redouble their efforts to hammer out not only a moon they can live with, but a solar system they can live with. This has two connotations. First, the solar system is a deadly place; this underscores the beauty and habitability of our [privileged planet](#). Second, evolutionary scientists accustomed to thinking in billions of years can't live comfortably with young phenomena like Enceladus, and a Titan that should have accumulated deep oceans of methane or ethane by now. If you are unconstrained by long-age assumptions, can you live with these findings?

Next headline on: [Mars](#) • [Solar System](#) • [Dating Methods](#)

Biblical Archaeology News 08/09/2005

One point where theology and science intersect is in the field of archaeology. Here are a few recent stories that bear on historical claims in the Bible.

- **Pool of Siloam update:** Last fall, the discovery of the probable Biblical Pool of Siloam was announced (see [12/24/2004](#) story). In its September-October 2005 issue, [Biblical Archaeology Review](#) has published a detailed article with photographs about the find and the continuing excavation. See also the LA Times article copied by the [Pittsburgh Post-Gazette](#), where reporter Thomas L. Maugh II seems pretty confident it is the real thing.
- **Nebuchadnezzar's Nephew Nabonidus News:** [Science](#) magazine reported on presentations at an international convention of Assyriologists last month. Researchers discussed recent archaeological finds in Tayma that confirm that Nabonidus, nephew of the Biblical Nebuchadnezzar II and father of Belshazzar (see [Daniel 5](#)) was indeed present in Tayma (Teima) in Arabia while his son Belshazzar remained in charge of Babylon (in modern Iraq). This corroborates an explanation for apparent discrepancies between the Biblical account and earlier archaeological inscriptions that had suggested Nabonidus (not mentioned in the Bible), not Belshazzar, was the true king of Babylon. For background on the resolution of this controversy, see [ChristianAnswers.net](#) and [BibleHistory.net](#).

Speaking of Iraq, [EurekAlert](#) provided progress reports on efforts to restore the Mesopotamian wetlands (see [05/01/2003](#), [08/18/2003](#) and [02/25/2005](#) entries). In short, a little hope, but a long way to go.

- **King David Ruled Here:** The [Biblical Archaeological Society](#) also reported today the discovery of a "massive public structure" that could be the palace of King David, used not only by David but also his dynasty in Jerusalem. The structure, now being unearthed south of the Temple Mount by archaeologist Eilat Mazar, contained an inscription with the name of Yehochal, mentioned in Jeremiah as being a senior official in the court of later king Zedekiah. Archaeologist Gabriel Barkay told the [New York Times](#), "this is one of the first greetings we have from the Jerusalem of David and Solomon."

Artifacts from the Davidic period are hard to come by not only because Jerusalem is a holy site for three major world religions (Judaism, Christianity and Islam), with all the cultural and political tensions that creates, but also because the entire city was ransacked and destroyed multiple times, particularly by Nebuchadnezzar in 586 BC and the Romans in 70 AD. King David reigned much earlier, from 1025 - 985 BC (see [CARM](#) timeline).

Each new artifact or structure uncovered in the lands of the Bible brings excitement, but why any more than the greatest, most detailed inscription of all, the Bible itself?

Next headline on: [Theology and the Bible](#)

Editorial: "Faith-Based Evolutionism" 08/09/2005

Dr. Roy Spencer (Principal Research Scientist, U of Alabama) on [Tech Central Station](#) wrote his view about the Darwinism vs. Intelligent Design controversy. He claims that evolutionism in the sense of common ancestry of all living things has no observational support and is just as religious as creationism. He defends intelligent design, which he claims he embraced on the scientific evidence alone, as a constitutionally protected and an intellectually more satisfying approach that will not impede scientific progress, whereas queries into the evolutionary origins of things only tease intellectual curiosity and tend to perpetuate the same beliefs.

Demonstrating that evolutionism is a faith, he turns the Constitution's Establishment Clause back on the Darwinists, and denies that theistic evolution is an acceptable compromise. No one would disagree with his ending expression of appreciation for the "freedom that we have in a free society to discuss, and study, such issues."

This is a short, cogent, reasoned, non-threatening, thoughtful, complete statement that is well worth reading. Writers should take note at this good example of making a compelling case in an article that would fit on one sheet of paper.

Next headline on: [Intelligent Design](#) • [Evolution](#) • [Education](#)

History Channel Documentary on Human Ancestry: History or Fiction? 08/09/2005

The [History Channel](#) aired a program called "Ape to Man" Monday evening August 7, alleging that modern science had finally pieced together the solution to the puzzle of human evolution. Although it included debunking episodes of Piltown (11/18/2003) and Java Man (02/27/2003), the flavor of the show was that the picture of human origins has become clear because we now "know" (02/15/2002) that tool use and not brain size (12/30/2004, 11/05/2002, 07/04/2002) is the key to understanding what makes us human, and we "know" (11/05/2003, 10/20/2003, 03/07/2002, 02/15/2002) that humans emerged from Africa and not Europe (as the proud Europeans had wanted to believe, making them gullible for the Piltown hoax). An animation, often repeated, showed a long string of transitional forms over millions of years in a lineup that the animation camera swept over in rapid succession, giving the impression of linear and slow gradual change over hundred thousands of generations. Another episode portrayed clumsy, imbecilic Neanderthals (02/25/2005) sneaking up to a wildfire to learn the secret of the mysterious flames.

Ape to Man was rebroadcast on Thursday evening Aug. 11. The [History Channel](#) advertising poster mocked the Michelangelo fresco *The Creation of Man* by showing the hand of God pointing to a hairy half-ape arm. Below it, a timeline purports to show 5 million years of human evolution. Brad Harrub at [Apologetics Press](#), co-author of [The Truth About Human Origins](#), was quick to post a rebuttal listing the inaccuracies and falsehoods in the show.

Brief glimpses at this program by your faithful editor led to the perception that the writers of *Ape to Man* were either liars (11/19/2004), clueless (12/21/2004, 05/24/2004, 03/25/2004) or had not done their required reading assignment on *Creation-Evolution Headlines* (12/30/2004, 09/23/2004, 07/23/2004, 06/11/2004, 03/28/2003). The animated ape-to-man lineup, for instance, is contrary to what even the evolutionists believe (02/16/2005). They admit that the human family tree was not a Victorian picture of orthogenesis, leading in a single line from ape to man, but was a complex, branching bush of mosaics of features that are difficult to classify. Understanding this background, *Ape to Man* appears as unvarnished [bluffing](#), tarnishing the credibility of the History Channel (usually one of the few watchable cable networks). Harrub will tell you everything else you need to know about this travesty of casuistry, this mockumentary that does little more than deceive the public while providing job security for fully-human but depraved actors (03/19/2003) who like to wear makeup and hair (06/10/2003) instead of clothes. Don't show it to impressionable adults. They might not be as bright as Brother Neanderthal (see 10/01/2004, 05/19/2005, 03/27/2003).

This seems to be Evolution Promotion Week on the cable channels. The Science Channel is preaching molecules to man

evolution in back-to-back specials, complete with the usual weird avant-garde music and dreary British narration in deep baritone, *500 million years ago, as the Uth cooled, bluff bluff, the first life emerged, bluffity bluff bluff, eyes evolved, blah blah, dinosaurs sprouted wings and took to the skies*, and so on, and so forth, zzzzzzzzz. What is this, a campaign to soften the opposition to evolutionary mythology? If so, it's not working. Actually, it is standard daily repertoire on all the "non-fiction" channels. It hasn't worked since before TV was invented, or else the polls wouldn't be showing the majority believing in creation. Viewers seem to understand that movie technique can't substitute for evidence, common-sense and reasonable interpretation of the observable facts. They seem to sense when storytelling is being passed as truth. Any sufficiently financed doxology to evolutionary biology is indistinguishable from tragic fiction. Unless they are already Charlie Church fundamentalists, most people watch it for entertainment, or as a cure for insomnia.

Next headline on: [Early Man](#) • [Media](#) • [Dumb Ideas](#)

Stupid Evolution Quote of the Week 08/06/2005

In a [CNN Presents](#) program August 6 about astrobiology and SETI called, "Is Anyone Out There?", Miles O'Brien one-upped Carl Sagan with this gem: "We are made of starstuff. Mix and blend for 15 billion years, and out pops us – an intelligent, sentient soufflé."

Have any of you baked a soufflé that was sentient? Tell us how you communicated with it. Has anyone called you a soufflé before? Describe your feelings. What would you do to someone who called you a soufflé? Hint: consider some angles on the definition of soufflé: "a dish that is made primarily from beaten egg whites and yolks and baked until [puffed up](#)."

Next headline on: [Origin of Life](#) • [SETI](#) • [Dumb Ideas](#)

Body Scan: How Precision Engineering Aids Human

Acumen 08/05/2005 

Often the most interesting science stories are the ones about us—how our bodies and minds function. Actions we perform each day without much thought are made possible by precision engineering, sometimes at the molecular level. Here is a selection of news briefs about human superpowers.

- **Electrical engineering:** We have untold myriads of electrical voltage sensors in our cells. They are so small, scientists must use extremely delicate techniques of X-ray crystallography to try to determine their structure. [Science Now](#) summarizes recent papers by Roderick MacKinnon *et al.* (see [05/01/2003](#), [3/12/2002](#) entries) about potassium channels in the membranes of neurons. The structure of the pores and the adjacent voltage sensors is coming into focus. There are four positively-charged arginine molecules (amino acids) that sit on top of the voltage sensors that surround the channel. "These charged arginines," the article says, "move in response to changes in the voltage across the cell membrane, pressing up and down on the lever that opens and closes the pore." Just how this movement takes place is still unknown, but it happens really fast. That's what makes you cry *ouch* almost instantly after stubbing your toe: an electrical current, set up by these voltage-dependent ion channels, travelled from neuron to neuron from toe to brain in a fraction of a second.
- **Optical engineering:** What could be clearer than a cornea? This outer surface of the eye looks simple, like a glass lens, but it is very complex.

[EurekAlert](#) summarized work by the American Society for Biochemistry and Molecular Biology. The scientists identified 141 distinct proteins in the cornea, 70% of which were previously unknown. (For the structure of protein, see our [online book](#)). These complex molecules perform many important roles, such as “antimicrobial defense, heme and iron transport, tissue protection against UV-radiation and oxidative stress,” it lists. “Several other proteins were known antiangiogenic factors, which prevent the formation of blood vessels.” The cornea is not a mere gateway for light, but a lively, active place, constantly undergoing maintenance, repair and cleaning. The September issue of [Sky and Telescope](#) recommends that you think carefully before deciding on laser surgery on this delicate, dynamic, living surface.

- Software engineering: Perceiving perception: Your brain uses database technology. A press release from [Howard Hughes Medical Institute](#) states that “The brain may interpret the information it receives from sensory neurons using a code more complicated than scientists previously thought.” This “perception code,” studied by experiments with monkeys (which presumably have similar neuronal equipment to humans) found that “most attention to the first 250 milliseconds of neural firing, and that their attention falls off exponentially from there.” Maybe some form of attention deficit is built in to deal with TMUI (too much uninteresting information).

See also a related report on [EurekAlert](#) about work at Johns Hopkins, “How the brain understands pictures.” Researchers found that “the system continuously organizes the whole scene, even though we usually are attending only to a small part of it.” Three or four times per second, the brain organizes the chunks of a scene into something like a database, according to a “sophisticated program” to “select and process the information that is relevant at a given moment.” As one researcher visualized it, imagine the challenge of pulling order out of a chaotic jumble of Lego blocks. He said, “the visual system first has to arrange this bag of blocks into useful ‘chunks’ and provide threads by which one or the other chunk can be pulled out for further processing.”

- The Cellular 007: When major threats arise, sometimes you have to give the cops their leash and turn them loose to do whatever is necessary to maintain security. [EurekAlert](#) reported on work by Yokoyama *et al.* at Washington School of Medicine. They found that natural killer cells act like the “James Bond” of the immune system. Under certain circumstances, the body gives them a “license to kill” – “the arsenals of natural killer cells only become fully armed after a receptor on their surfaces interacts with a molecule on the surfaces of other cells.” That’s the warrant to search and destroy. The article says that these natural killer cells are produced in the bone marrow, and that the entire population is replaced in a week’s time. “The molecular details of the process were so unusual,” says the report, “that Yokoyama and his colleagues found themselves struggling to develop terms to describe it to other immunologists.”
- Safe Stem Cells: Scientists at Pittsburgh School of Medicine, reports [EurekAlert](#), have found that discarded placentas apparently contain stem cells with the “same potential as the more controversial counterparts,” embryonic stem cells. If so, then “placentas would no longer be relegated to the trashcan,” but become a lifesaving source of regenerative material. See also the [MSNBC News](#) report.
- Navigational Guidance and Control: Those orthogonal semicircular canals in our inner ears do more than just help balance. Because they respond to acceleration and deceleration, reports [EurekAlert](#) on work by the Institute of Neurology in London, they provide the brain with inputs for an “on-line movement guidance system” that is crucial when visual cues are absent, such as finding your way in a dark room. Additionally,

the otolith organs (see [10/10/2003](#) entry), part of the vestibular system, are essential for determining which way is up. The article states that “the inner-ear vestibular organs provide what is essentially an on-line movement guidance system for maintaining the accuracy of whole-body movements.” This not only helps those of us lost in the dark, but highly-trained specialists undergoing “complex, high-precision whole-body movements, such as those of the gymnast or circus performer.” Visualize an acrobat balancing and catching a jug on his head and making it spin around, or picture an Olympic gymnast on uneven bars nailing a double twisting dismount, or a skater executing a perfect triple Lutz. You can bet those vestibular organs are working overtime. The full article by Brian L. Day and Richard C. Fitzpatrick, loaded with praise for the vestibular system, can be found on [Current Biology](#), Volume 15, Issue 15, 9 August 2005, pages R583-R586. Here is the opening paragraph:

Small, beautifully formed and locked in the skull, the vestibular organs continuously bombard the brain with messages. The messages are quite unlike any others. They tell of accelerations, how the head is rotating and translating and its orientation in space. The messages never stop and cannot be turned off. Even when we are completely motionless, they signal the relentless pull of gravity. Perhaps because of their constant monologue, the vestibular sensation is different to the other senses. There is no overt, readily recognizable, localisable, conscious sensation from these organs. They provide a silent sense.

A body is a terrible thing to waste (speaking of waist, there can be too much of a good thing). Whether your body is fully functional or afflicted with a malady or two, you have a marvelous set of capabilities, and a dignity underscored by the complexity of the engineering that went into your making. Even if you are completely disabled, there is more complex engineering working properly under the skin than you could possibly realize. Fill in the box you were given. Exercise, eat right, practice. Maintain your machinery in optimum working order. Aim your body at something noble and worthwhile. You have a huge support infrastructure, with a staff of trillions behind the scenes, hoping you will make the right choices.

Next headline on: [Human Body](#) • [Cell Biology](#) • [Amazing Stories](#)

Origin of Life: Can A Liability Be Turned Into an Asset?

08/05/2005 

Most of us know the Second Law of Thermodynamics (2TD) as the law of decay and disorder, and would tend to assume it would constitute a major obstacle to theories of the origin of life by chemical evolution (see [online book](#)); certainly creationists Duane Gish and Henry Morris frequently employed the 2TD skilfully in their debates with evolutionists. Surprisingly, Eric Schneider and Dorian Sagan (Carl Sagan’s son by his first wife, the Gaia theorist Lynn Margulis) praised the 2TD as a life-giving principle in their new book, *Into the Cool: Energy Flow, Thermodynamics and Life*. “Cool is not enough” remarked J. Doyne Farmer (Santa Fe Institute) in his review of the book in *Nature*.¹ Unimpressed with the concept, he smirked, “There’s more to life than the second law of thermodynamics.”

How could Schneider and Dorian Sagan turn a liability like 2TD into an asset? Farmer gives their thesis a two-paragraph synopsis:

The authors' **central thesis** is that the broad principle needed to understand **self-organization is already implicit in the second law of thermodynamics**, and so has been **right under our noses for a century and a half**. Although the second law is a statement about **increasing disorder**, they argue that recent generalizations in non-equilibrium thermodynamics make it clear that it also plays a central role in **creating order**. The **catchphrase** they use to summarize this idea is "nature abhors a gradient". Being **out of equilibrium** automatically implies a gradient in the flow of energy from free energy to heat. For example, an organism takes in food, which provides the free energy needed to do work to perform its activities, maintain its form and reproduce. The conversion of free energy to entropy goes hand in hand with the **maintenance of organization in living systems**.

The twist is to claim that **the need to reduce energy gradients drives a tendency towards increasing complexity** in both living and non-living systems. In their words: "Even **before natural selection**, the **second law 'selects'**, from the kinetic, thermodynamic, and chemical options available, those systems best able to reduce gradients under given constraints." For example, they argue that the reason a climax forest replaces an earlier transition forest is that it is more efficient at fixing energy from the Sun, which also reduces the temperature gradient. They claim that **the competition to reduce gradients introduces a force for selection**, in which less effective mechanisms to reduce gradients are replaced by more effective ones. They argue that this is the fundamental reason why both living and non-living systems tend to display **higher levels of organization over time** [sic]. (Emphasis added in all quotes.)

Interesting, Farmer mumbles, but uh-uh. "This is an intriguing idea but I am not convinced that it makes sense." He proceeds to criticize their vagueness of the "selection" process or why things should tend to increase in complexity. Yes, the 2TD is important for understanding the operation of complex systems, but "the authors' claim that non-equilibrium thermodynamics explains just about everything falls flat," he contends. For example, "consider a computer." A computer has a power supply, but "the need for power tells us nothing about what makes a laptop different from a washing machine." At this point, things get interesting. Farmer starts arguing intelligent design; is this J. Dooyne Farmer speaking, or Stephen Meyer?

To **understand** how a computer **works**, and what it **can and cannot do**, requires the **theory of computation**, which is a **logical theory** that is **disconnected from thermodynamics**. The power supply can be **designed** by the same person who **designs** them for washing machines.

The key point is that, although the second law is **necessary** for the emergence of complex order, it is **far from sufficient**. **Life** is inherently an **out-of-equilibrium phenomenon**, but then **so is an explosion**. Something other than nonequilibrium thermodynamics is **needed to explain why these are fundamentally different**. Life relies on the **ability of matter to store information and to implement functional relationships, which allow organisms to maintain their form and execute purposeful behaviours that enhance their survival**. Such complex order **depends on the rules** by which matter interacts. It may well be that many of the details are not important, and that there are general principles that might allow us to determine when the result will be organization and

when it will be chaos. But this **cannot be understood in terms of thermodynamics alone.**

With this, Farmer left the origin of life as an unsolved problem. “Understanding the logical and physical principles that provide sufficient conditions for life is a fascinating and difficult problem that should keep scientists busy for at least a millennium,” he wrote. Thermodynamics is just one of many actors in the play, and not even the principal one; “The others remain unknown.”

¹J. Doyne Farmer, “Cool is not enough,” *Nature* 436, 627-628 (4 August 2005) | doi: 10.1038/436627a.

They’re not unknown; they’re right in your hotel room drawer. This review was interesting because Farmer invoked arguments similar to those used by creationists and intelligent design theorists. Since it is highly doubtful that Farmer’s review was religiously motivated, this supports the contention that arguments against chemical evolution arise from the facts, not the motivation.

Contrary to the habits of their opponents, Morris and Gish always stuck to the scientific principles and observational facts, not theological arguments, in their famous debates on college campuses with leading evolutionists. Like Farmer, they stressed that energy is necessary, but not sufficient, for life or for any other directed process that uses energy to accomplish work. They argued that two other principles always need to be applied: (1) an energy conversion mechanism, and (2) a program to direct the energy toward the desired end. In an automobile, for instance, the chemical energy of the gasoline is converted into kinetic energy of the drive shaft by channeling the “explosion” of the fuel in the piston according to a programmed sequence of events: inlet, spark, explosion against the moveable piston, outlet for the waste gases and heat, etc. In a plant leaf, the energy of sunlight is directed into very complex conversion mechanisms of photosynthesis to direct it into metabolic processes.

Gish always emphasized that the application of raw energy is even more harmful than none at all: pouring gas on the car and lighting a match does not help it drive uphill, and holding a dead stick up to the sunlight will not make it sprout and grow fruit. Only when the far-from-equilibrium energy is channeled by intelligent design will the tendency toward disorder be overcome, and that only locally and temporarily. The downhill effects of the Second Law of Thermodynamics are inexorable; all real processes must obey the law of entropy. In this book review, Farmer admitted as much, and even made the case stronger by pointing to computers. A laptop computer channels electrical energy into complex programmed pathways that we all know are the result of intelligent design. Software engineers may be far from equilibrium, but there’s more to the story than that!

That Schneider and Dorian Sagan would try to turn the Second Law into a driving force for evolution is almost comical. The Big Science establishment treats Gaia theory, even its most naturalistic incarnations, with nearly the same disdain as it does creationism. *Nature* would not let this book get by with any more than faint praise for some aspects, but that they would let the reviewer employ implicit ID/creationist reasoning to debunk its primary thesis is instructive.

Next headline on: [Origin of Life](#) • [Physics](#) • [Intelligent Design](#)

President Bush Votes Yes on ID 08/02/2005

Asked whether ID was a valid alternative to evolution, President Bush told reporters August 1, “Both sides ought to be properly taught ... so people can understand what the debate is about.... Part of education is to expose people to different schools of thought. You’re asking me whether or not people ought to be exposed to different ideas, and the answer is yes.” According to [Answers in Genesis](#), Bush’s science advisor John Marburger tried to soften this statement by claiming that evolution is the cornerstone of biology. Regardless, the [Discovery Institute](#) commended the president for his stance. See [Fox News](#) for the context of the remarks. [Science](#) magazine took note, quoting the director of the Biodiversity Research Center at the University of Kansas, who said that if Bush wanted to promote ID as an alternative to evolution, “that would be a terrible mistake.” On the other side, David Limbaugh, in an editorial on [TownHall.com](#), thought the anti-ID folks were making the mistake. The remarks caused enough notice to make the cover of [Time Magazine](#).

Update 08/04/2005: On [Breakpoint](#) August 4, Chuck Colson also praised President Bush for his position, then added some interesting new information about the former atheist Antony Flew (see [12/09/2004](#) story). Colson met Flew in Oxford last week and verified that ID had shaken Flew’s evolutionary beliefs. Then, Colson posed a follow-up question that made Flew admit it was a provocative point worthy of thought: “He [Flew] could prove theism was the only philosophically sustainable position, but he could not prove who God was. I said, ‘If you could prove who God was, you could not love God—which is the principle object of life.’” Whether further reflection on that question will move Flew from atheist to deist to Biblical theist is a story in progress.

Predictably, the usual heathen (NCSE, ACLU, AUSCS, etc.) beat their voodoo drums over the president’s remarks. Who will heed the call, and send missionaries to these tribes, lost in darkness and ignorance? We want to hear Antony Flew respond, “Here am I: send me.”

Next headline on: [Politics](#) • [Intelligent Design](#) • [Evolution](#) • [Education](#) **TOP**