"I think we have more machinery of government than is necessary, too many parasites living on the labor of the industrious."
— Thomas Jefferson

Phactum

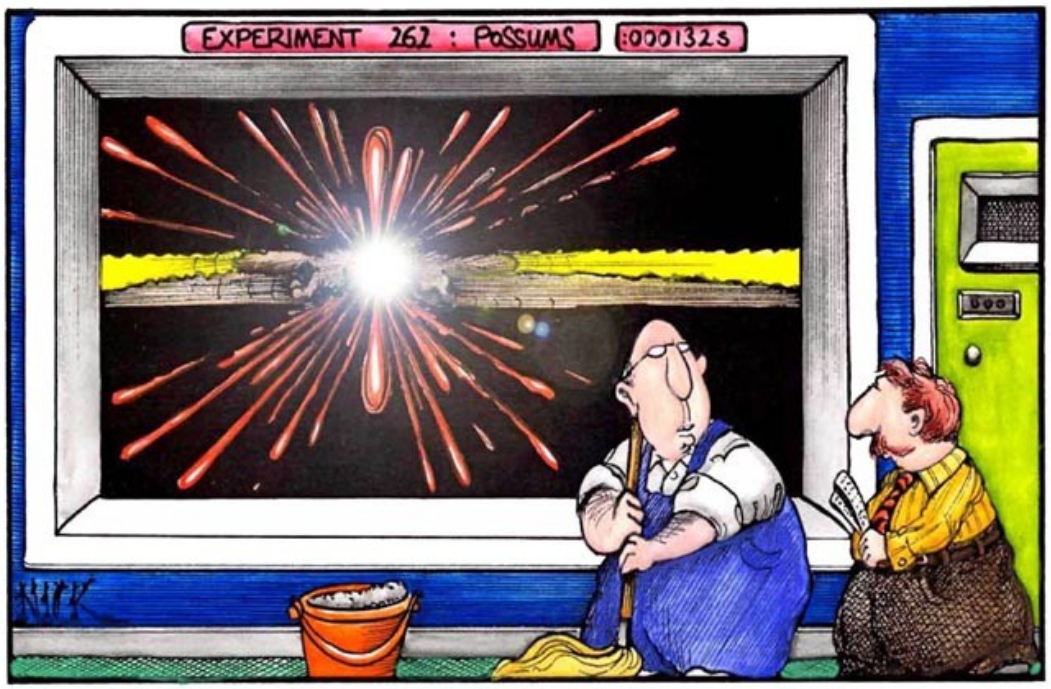
The Newsletter of the Philadelphia Association for Critical Thinking
October 2009

editor: Ray Haupt email: phactpublicity@aol.com
Webmaster: Wes Powers http://phact.org/

Large Hadron Colliders

and other hot topics in Physics - Page 6

New Approaches to Solving the New Zealand Possum problem - Page 9



"Sure been a heap more work for ME around here since those Biologists got granted research time on the ol' Supercollider…"

Cartoon by Nick D. Kim http://www.lab-initio.com Used by permission.

"Follow the path of the unsafe, independent thinker. Expose your ideas to the danger of controversy. Speak your mind and fear less the label of crackpot than the stigma of conformity."
-Thomas J. Watson, Sr., Founder of International Business Machines (IBM) (1874-1956)

PHACT CALENDAR

Dr. David Cattell, Chairman of the Physics Department of Community College of Philadelphia hosts meetings of **PhACT -** at 2:00 PM on the third Saturday of most months at Community College of Philadelphia, in **Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets**. Parking is easily available but is no longer free for PhACT attendees at CCP events. The Saturday parking rate is $3.50. Enter the college parking lot on 17th Street which is one way south bound. This meeting site is handicap accessible. **PhACT Meetings are free and open to the public unless otherwise noted.**

Saturday, October 17, 2009 - Dr. Paul Halpern, a physicist and author at the University of the Sciences in Philadelphia will discuss his book **Collider: The Search for the World's Smallest Particles**. It is about the Large Hadron Collider (and other colliders), what scientists hope to find, and the fear that colliders might produce black holes or other objects able to destroy the world. See Page 6 for more details.

Saturday, November 21, 2009 - Dr. Robert L. Park, professor of physics at the University of Maryland and author of **Superstition: Belief in the Age of Science**, will be our speaker. Dr. Park will discuss his book and anything else that may be on his mind. See page 24 for description of the book.

Saturday, January 16, 2010 - TBA

Friday, October 9, 2009 at 8:00 PM. Delaware Valley Mensa General Membership Meeting. - "**Lewd, Amorous and Disorderly Practices in the Eighteen Century and its English Background**". explores a topic not often considered. Investigation of such sources as court records, "little black books" and diaries as well as period novels produce many details to illustrate this presentation. **Clarissa Dillon, Ph.D**. has a doctorate in history from Bryn Mawr College. Her work uses a blend of traditional scholarly rese arch and replication - doing 18th century women's work, "their way" to the greatest extent possible. She is an active participant in Association for Living History, Farms and Agricultural Museums (ALHFA) and is a founding member of Past Masters in Early American Domestic Arts. She can be seen demonstrating various domestic processes at many historic sites in the area.

Prepare to be entertained by this lively, original and animated speaker.

The General Membership Meeting will be held at the Police Administration Building,20750 Race Street, Philadelphia, PA. This meeting is DVM's only activity specifically open to the public, so feel free to invite your friends and relatives. Door prizes will once again be awarded, sponsored by Chocolate. The meeting will begin promptly at 8:00.
PS: Don't let traffic on the Schuylkill Expressway interfere with attending. Consider taking SEPTA and exiting at Market Street East / Gallery, it is only a two block walk to the Police Administration Building.

Thursday, October 15, 2009 at 7:30 PM. At the Free Library of Philadelphia, 20th and Benjamin Franklin Parkway. **Steve Poses** | *Things I've Learned: A Caterer's Guide to Cooking and Home Entertainment* FREE Steve Poses is the founding chef of Frög (named "Best Restaurant" of the past 25 years by Philadelphia magazine in 1998) and The Commissary. Born of the two, Poses's Frog Commissary Catering has catered more than 12,000 events in the Philadelphia area and The Frog Commissary Cookbook is a regional bestseller, with more than 100,000 copies in print. Inspired by his decades of experience in the catering industry, his new book is a guide to cooking and home entertainment. FREE. 215-567-4341

(Continued on page 3)

The **PhACT Calendar** is open to members and non-members who wish to announce meetings and events of other groups of which they are interested or affiliated. These events should be of some general interest to the Skeptical or Scientific community and should be within a reasonable radius of Philadelphia. Send submissions to the editor at ***phactpublicity@aol.com***. Keep the announcements brief. Space is limited and insertions will be made on a first come-first served basis after the needs of PhACT are accomplished. Phactum does not accept paid advertising.

Monday, October 19, 2009 at 5:00—7:00 PM. At City Hall in Philadelphia, Fifth Floor. Fairmount Park's Colonial Elite, Awards Reception and Preview. Cedar Grove, Laurel Hill, Lemon Hill, Mount Pleasant, Strawberry Mansion, Sweetbriar, and Woodford .. Historic Fairmount Park houses and icons of Philadelphia's rich architectural past, are the theme of this juried exhibition of work by **Moore College of Art & Design** students and alumnae. RSVP to 215-684-7920 or rsvpart@comcast.net.

Thursday, October 22, 2009 at 7:30 PM. At the Free Library of Philadelphia, 20th and Benjamin Franklin Parkway. **Richard Dawkins** | *The Greatest Show on Earth: The Evidence for Evolution* Evolutionary biologist and unapologetic atheist Richard Dawkins taught for many years at Oxford University as the Charles Simonyi Professor of the Public Understanding of Science. The Economist called his international bestseller, The God Delusion, "a particularly comprehensive case against religion." His other works include The Selfish Gene and The Blind Watchmaker. A follow-up to The God Delusion, The Greatest Show on Earth uses scientific evidence to argue the case for evolution. Ticket or subscription purchase required. 215-567-4341

Thursday, October 29, 2009 at 7:30 PM. At the Free Library of Philadelphia, 20th and Benjamin Franklin Parkway. **Gordon S. Wood** | *Empire of Liberty: A History of the Early Republic, 1789-1815* . Ellis Wachs Endowed Lecture. The Alva O. Way Professor of History Emeritus at Brown University, Gordon S. Wood won the Pulitzer Prize for The Radicalism of the American Revolution and the Bancroft Prize for The Creation of the American Republic, 1776-1787. His other books include The Americanization of Benjamin Franklin and The Purpose of the Past: Reflections on the Uses of History. Empire of Liberty offers a comprehensive account of the pivotal era between 1789 and 1815 when the United States took its first shaky steps as a new and growing nation. Ticket or subscription purchase required. 215-567-4341

Saturday, November 7, 2009, 5:45pm The Delaware Valley Opera Company In celebration of its 30th Anniversary. **ELEGANT AUTUMN GALA** At The Germantown Cricket Club, 411 West Manheim Street, Philadelphia, PA. Cocktail Hour from 6-7, featuring " The Jazz Trilogy", Dave Posmontier, piano Bob Howell, sax Chico Huff, bass Elegant Seated Gourmet Dinner - Chicken Piccata and Teriyaki Glazed Salmon. Opera Recital by Distinguished DVOC singers featuring pianist, Doris Coleman. Seating is limited. $50 per person (cash bar). RSVP with check to: DVOC, 1731 Chandler Street, Phila., PA.19111. For more information: 610-291-8840

Tuesday, November 24 at 7:30 PM. At the Free Library of Philadelphia, 20th and Benjamin Franklin Parkway. **Adam Gopnik** | *Angels and Ages: A Short Book about Darwin, Lincoln, and Modern Life.* Horace W. Goldsmith Foundation Endowed Lecture Co-sponsored by the American Philosophical Society Museum. Adam Gopnik's Angels and Ages is a study of the cultural impact of Charles Darwin and Abraham Lincoln. Time magazine calls the book "a succinct, convincing, and moving account of how two men ripped mankind out of its past unreason and thrust it into a more enlightened age." Gopnik appears at the Free Library to speak of these celebrated thinkers--who were born on the same day in 1809--on the 150th anniversary (to the day!) of the publication of On the Origin of Species. A contributor to the New Yorker for more than two decades, Gopnik is a three-time recipient of the National Magazine Award. Ticket or subscription purchase required. 215-567-4341

2009-10 Penn Science Café Schedule

Penn
University of Pennsylvania

The Penn Science Café, the lecture series that hauls science out of the lab and treats it to a night on the town. Free and open to the public, it's an opportunity to pitch questions to leading scientific experts.

6 p.m. at the White Dog Café, 3420 Sansom Street, Philadelphia, PA 19104. Menu items available for purchase RSVP to Jordan Reese, jreese@upenn.edu or 215-573-6604. RSVP's are encouraged, but we aren't sticklers.

- **Sept. 16**, Mark Trodden, Department of Physics and Astronomy: **How the Vast and the Miniscule Conspire to Form Our Universe**
- **Oct 14,** Anthony Cashmore, Department of Biology: **Free Will and the Criminal Justice System**
- **Nov 18,** Lyle Ungar, Computer Science **The Singularity -When computers Will Think Like Humans**
- **Dec 16**, Adrian Morrison, Veterinary Medicine An Odyssey With Animals: Reflections on the Animal Rights and Welfare Debate
- **Jan 20, 2010,** Ruth Schwartz Cowan, History and Sociology of Science: **DNA Banks and Genetic Tests, Should I make a deposit? Should I take one?**
- **Feb 16,** Max Mintz, Department of Computer Science **Quantum Computing**
- **March 17,** Jonathan Moreno, History and Sociology of Science: **Bioethics in Washington**
- **April 14,** Josh Plotkin, Department of Biology **: A Viral Evolution**
- **May 12**, Robert Kurzban, Department of Psychology: **The Cognitive Process Behind Hypocrisy**

Science on Tap, A Science Café

Science on Tap is a monthly gathering in Philadelphia for anyone who is interested in getting together with other people to discuss a range of engaging science topics.
Held at National Mechanics, a relaxed, convivial bar in Old City, *Science on Tap* features a brief, informal presentation by a scientist or other expert followed by lively conversation. The goal is to promote enthusiasm for science in a fun, spirited, and accessible way, while also meeting new people. Please come join the conversation! On the second Monday of each month at 6:00 PM.

What's on tap: Monday, October 12, 2009 at 6:00 PM. Sabrina McCormick, Fellow at the American Academy for the Advancement of the Sciences "No Family History: Investigating What's Behind the Breast Cancer Epidemic"

In her book and documentary of the same title—No Family History—McCormick presents compelling evidence of environmental links to breast cancer, ranging from everyday cosmetics to industrial waste. As drugs, pink products, and corporate sponsorships generate enormous revenue to find a cure, a growing number of experts argue that we should instead increase focus on prevention—reducing environmental exposures that have contributed to the sharp increase of breast cancer rates.

Presented by the Chemical Heritage Foundation.

Science on Tap is sponsored by a consortium of five Philadelphia institutions: the Academy of Natural Sciences, the American Philosophical Society (APS) Museum, the Chemical Heritage Foundation (CHF), the Mütter Museum of The College of Physicians of Philadelphia, and the Wagner Free Institute of Science.

Upcoming Events

- November 9, 6:00 p.m. - Colin Purrington, Associate Professor of Biology at Swarthmore College. "Embracing Darwin". Presented by The American Philosophical Society (APS) Museum.
- December 14, 6:00 p.m. - Michael McCann, Professor of Biology, St. Joseph's University. Presented by The Wagner Free Institute of Science.

National Mechanics
22 South Third St.
Philadelphia PA 19106
215-701-4883
Free and Open to the public (age 21+) or minors accompanied by a chaperone 25+.

The College of Physicians of Philadelphia
BIRTHPLACE OF AMERICAN MEDICINE℠

The College of Physicians of Philadelphia
19 South Twenty-Second Street
Philadelphia, PA 19103
(215) 563-3737 x304

College of Physician lectures and programs are free. There may be a fee at some receptions.

Friday, October 9, 2009 at 6:30pm - The Girl with the Crooked Nose: A Tale of Murder, Obsession, and Forensic Artistry. In The Girl with the Crooked Nose, Ted Botha tells the absorbing story of Frank Bender, a gifted, self-taught artist who can bring back the dead and the vanished through a unique, macabre sculpting talent. Bender has been the key to solving at least nine murders and tracking down numerous criminals. Then he is called upon to tackle the most challenging and bizarre case of his career. Ted Botha brilliantly weaves Bender's story-the cases he has solved, the intricacies of his art, the colorful characters he encounters, and the personal cost of his strange obsession-with the chilling story of the Juarez investigation. With a conclusion as shocking as its story is gripping, The Girl with the Crooked Nose haunts readers long after the last page is turned. Sponsored by the F.C. Wood Institute for the History of Medicine and the Mütter Museum. A book signing and reception follows program. **Register for this event**

Wednesday, October 14, 2009 at 6:30pm . - The Radbill Lecture, Surgeons and Germs in the 19th Century, Sherwin B. Nuland, MD, FACS, Clinical Professor of Surgery, Yale School of Medicine, and Research Affiliate, Yale University Institution for Social and Policy Studies, and of the Program in the History of Science and Medicine. Sponsored by The Section on Medical History. Reception follows program. **Register for this event**

Tuesday, October 20, 2009 at 6:30pm. - 15th Annual Thomas Langfitt, Jr. Memorial Symposium on Healthcare Policy. P4P4P: Pay for Performance for Patients.
Moderator: David A. Asch, MD, MBA, Robert D. Eilers Professor of Health Care Management and Economics at the University of Pennsylvania; Professor of Medicine, Health Care Management, Operations and Information Management and Medical Ethics; and Executive Director, Leonard Davis Institute of Health Economics. Panelists to date: Kevin Volpp, MD, PhD, Associate Professor of Medicine and Health Care Management, University of Pennsylvania; Director, Leonard Davis Institute of Health Economics Center for Health Incentives; and Thomas M. Pellathy, Consultant, McKinsey & Company, Pittsburgh. Co-sponsored with the University of Pennsylvania. Reception follows program. **Register for this event**

Monday, October 26, 2009 at 2:00pm - Disruptive Innovations: The Future of Primary Health Care in Retail Settings: Would Our Founding Father and First College President, Dr. Benjamin Rush, Agree? At this seminar, industry leaders from the Convenient Care Association, private sector clinic operators, and non-profit hospitals and health systems will discuss the growth and evolution of the retail-based convenient care model as well as plans for future growth. Speakers will include local and national industry leaders who have helped shape perhaps the most talked about disruptive healthcare model to come along in our modern era: retail-based convenient care clinics. Co-sponsored with the Convenient Care Association and PhillyHealthInfo.org. Reception follows program.

1700 West Montgomery Avenue
, Philadelphia, PA 19121
ph 215-763-6529 **www.wagnerfreeinstitute.org**

The Wagner Free Institute of Science announces its free science courses for Fall 2009. The courses run from five to ten weeks. Lectures are held in the evening and last approximately one and a half hours. The courses are taught on an introductory college level and are appropriate for adults wishing to enrich their knowledge of the sciences, as well as for motivated junior and senior high school students. Courses begin on September 24th, and include:

"Trees of Center City Philadelphia" (Botany Series)Professor Alfred E. Schuyler - Field trip course; 5 sessions beginning September 24. Pre-registration required. Please note there is a pre-registration fee for this class only.
"Physics and the World Wars: How Technology Shaped the Path of History" (Physical Sciences Series) - Professor Paul J. Angiolillo Course held at the Wynnefield Branch of the Free Library; 8 weeks on Wednesday evenings at 6:30 PM beginning September 30.
"On Heavens and Humans: A Brief History of Astronomy and its Influence on Our Lives" (History of Science Series)
Professor Sylwester Ratowt Course held at the Independence Branch of the Free Library; 9 weeks on Monday evenings at 6:30 PM beginning October 5.
"Death, Aging, and Mortality: Cultural and Biosocial Perspectives" (Anthropology Series) Professor Janet Monge Course held at the University of Pennsylvania Museum of Archaeology and Anthropology; 6 weeks on Monday evenings at 6:30 PM beginning October 19.
All courses, unless otherwise indicated, are offered free of charge.
For full course information and syllabuses, call 215-763-6529 or visit **www.wagnerfreeinstitute.org**

Family Open Houses

The Wagner Free Institute of Science will present two Family Open Houses this fall. These programs highlight a few of the many fields of scientific study and exploration that have been part of the Wagner's history for the past 154 years. Presentations are given in the historic lecture hall with hands-on activities taking place in the museum. These family programs are appropriate for ages 6-12 but are enjoyed by teenagers and adults alike. These programs are free of charge.

Saturday. October 24, 2009, 12-4 PM, Presentation at 1 PM – **"Whooo Goes Bump in the Night:** A Spooky Creature Feature." Children's presentation by the Elmwood Park Zoo, featuring live nocturnal animals that are sure to give you goosebumps. Children are encouraged to come in costume.
Saturday, November 21, 2009 – 12-4 PM, Presentation at 1 PM – **"Naturally Illuminating: The Science Behind Luminescence.**" Children's presentation by the Wagner Free Institute of Science, featuring hands-on experiments that demonstrate the difference between photoluminescence and chemoluminescence.

Weeknights at the Wagner

The Wagner Free Institute of Science will present two fall programs as part of its evening lecture series, "Weeknights at the Wagner": These lectures are free. Donations are appreciated.

Thursday, October 15, 2009, 4-7 PM, Lecture at 5:30 PM – **"Life at the Bottom of the World: Deep-Sea Cephalopods of the Atlantic"** an illustrated presentation by **Dr. Elizabeth Shea,** Curator of Mollusks, Delaware Museum of Natural History.

The depths of the ocean have long fascinated mankind. Since the mid-twentieth century, through books, film and photography people have been able to come face to face with the diverse creatures that reside in deep-sea environments. But what is life like for these creatures and those who study them? Dr. Elizabeth Shea, Curator of Mollusks at the Delaware Museum of Natural History will introduce the deep-sea environment of the canyons and seamounts of the northwest Atlantic Ocean in her presentation, "Life at the Bottom of the World: Deep-Sea Cephalopods of the Atlantic."

Dr. Shea, who has done research for National Marine Fisheries Service and most recently the Bedford Institute of Oceanography's Ecosystems Research Division, is no stranger to living and working aboard a research vessel. She will detail the day to day of deep-sea research while focusing on the objectives of her trips, especially studies underway at the Delaware Museum of Natural History.

A vast amount of life exists at the bottom of the ocean, and a great deal of research has been done to explore and understand the biodiversity and ecology of these areas. However, since deep-sea exploration has only been possible for a short period of time, there is much to still be discovered. Dr. Shea will discuss the marine life she has been studying in the Northwest Atlantic Ocean, especially cephalopods like open-ocean squids, and will reveal preliminary findings of her most recent research.

Dr. Elizabeth Shea's talk is part of the Institute's evening lecture series, "Weeknights at the Wagner." Dr. Shea will speak in the historic lecture hall on Thursday, October 15th, at 5:30 PM. Images of her research will highlight her discussion. There will be a question and answer session immediately following the talk.

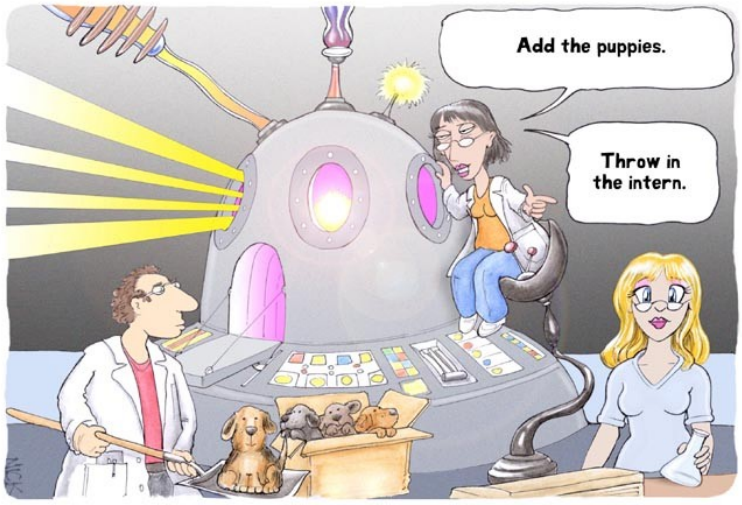
Dr. Elizabeth Shea joined the Delaware Museum of Natural History in January 2009 as Curator of Mollusks where she oversees one of the top ten collections in the United States. Her research focuses on the ecology and systematics of cephalopods, especially open-ocean squids. Dr. Shea earned a Ph.D. in Biology from Bryn Mawr College where she was recognized with the national P.E.O. Scholar Award and Bryn Mawr College's Doris Sill Carland Prize for Excellence in Teaching.
Dr. Shea will discuss her experiences exploring the canyons and seamounts of the northwest Atlantic Ocean and living on a deep-sea research vessel. She will focus on the efforts underway to explore and understand the biodiversity and ecology of these areas.

Come early to explore the Wagner's historic building and its unparalleled collections! The museum will stay open late (4 - 7 PM) for this event.

Thursday, November 5, 2009, 4-7 PM, Lecture at 5:30 PM - **"Gold, Elixirs, and Books of Secrets: A Brief History of Alchemy".** An illustrated presentation by D**r. Anke Timmerman**, Chemical Heritage Foundation. Dr. Timmerman will decipher the story of alchemy, from its ancient beginnings to its demise in the shadows of modern chemistry.

PhACT Meeting - Saturday, October 17, 2009 at 2 PM.

Dr. David Cattell, chairman of the Physics Department at Community College of Philadelphia will host **Professor Paul Halpern**, a physicist at the University of the Sciences in Philadelphia. Dr Halpern will be discussing his recent book **Collider: The Search for the World's Smallest Particles**. Come and learn about the Large Hadron Collider (and other colliders), what scientists hope to find, and the fear that colliders might produce black holes or other objects able to destroy the world. This is new and exciting technology looking into the smallest particles that comprise our entire Universe.



After years of experimentation, scientists remain dubious about whether there really IS such a thing as the Cute Particle.

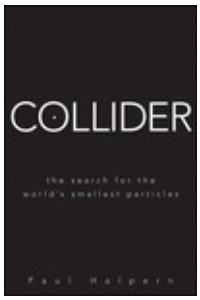
Cartoon by Nick D. Kim, http://www.lCartoon by Nick D. Kim, http://www.lab-initio.com

In Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets. Parking is easily available but is no longer free for PhACT attendees at CCP events. The Saturday parking rate is $3.50. Enter the college parking lot on 17th Street which is one way southbound from Spring Garden Street. The meeting site is handicap accessible and the event is free and open to the public.

Collider: The Search for the World's Smallest Particles

by Paul Halpern

Hardcover 272 pages August 2009 ISBN: 978-0-470-28620-3



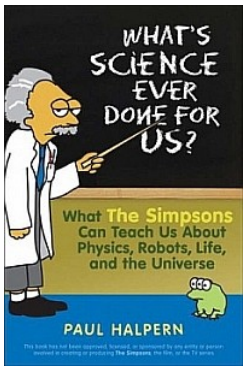
An accessible look at the hottest topic in physics and the experiment that will transform our understanding of the universe.

Understanding what our universe is physically made of is one of the oldest and most researched scientific quandaries to date. In the spring of 2009, the Large Hadron Collider will begin smashing particles to deconstruct matter to its smallest pieces and test the existence of the elusive and theoretical Higgs boson–a.k.a. the God particle–among other experiments. The results could confirm or disprove what we supposedly know about quarks, string theory, dark matter, dark energy, and the fundamental tenets of modern physics. Paul Halpern explains what scientists are searching for and why particle physics could well be on the verge of some of its greatest breakthroughs.

Paul Halpern, PhD, is Professor of Physics and Mathematics at the University of the Sciences in Philadelphia. He is the author of numerous books, including ***The Great Beyond*** (ISBN: 978-0-471-46595-9) and ***What's Science Ever Done For Us?*** (ISBN: 978-0-470-11460-5).

Books may be ordered online at:
http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470286202.html

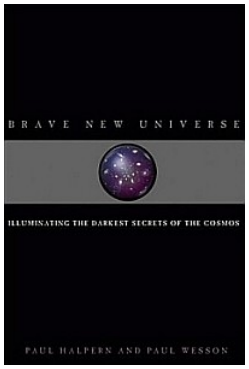
Other Books by Paul Halpern



What's Science Ever Done For Us: What the Simpsons Can Teach Us About Physics, Robots, Life, and the Universe

Publisher: Wiley; Mti edition (July 9, 2007) Paperback: 272 pages $14.95
ISBN-10: 0470114606 ISBN-13: 978-0470114605

A playful and entertaining look at the science behind the world's most popular animated series from three-eyed fish to donut-shaped universes.



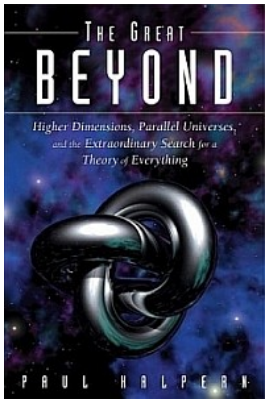
Brave New Universe: Illuminating the Darkest Secrets of the Cosmos

By Paul Halpern and Paul Wesson
Publisher: National Academies Press; illustrated edition August 4, 2006)
ISBN-10: 0309101379 ISBN-13: 978-0309101370 $27.95 Hardcover: 272 pages

In this glorious age for cosmology, astronomical measurement has never been more precise. Using modern instruments such as the Wilkinson Microwave Anisotropy Probe (WMAP), astronomers have found answers to long-elusive questions about the age and composition of the universe. With unprecedented confidence, they have revealed how long the cosmos has been expanding since its beginning. They have examined how this growth has changed over time, and have predicted its future course. Moreover, they have sorted the types of matter and energy in the universe into various categories, pinpointing how much of space contains ordinary materials—the stuff of stars and planets—and how much harbors other kinds of substances. By producing such exact results, high-resolution satellite data and novel telescopic techniques have thereby transformed one of the most speculative fields into a triumph for meticulous scientific methods.

Yet, like the excavation of ancient Troy, each layer revealed of cosmic information has unearthed hints of even deeper secrets. As clear data has emerged about the age and composition of the universe, cosmologists have encountered formidable issues underlying these results. For example, if, as the WMAP has revealed, only 4% of the universe constitutes ordinary matter, what is the nature of the remaining material? If, as telescopic measurements have shown, all of space is accelerating, what is producing this fantastic dynamo of energy? And if, as infrared searches have indicated, planetary systems are fairly common throughout the cosmos, why have we yet to encounter extraterrestrial beings?

As we learn more about the universe, we question how much of our experience is a function of our sensory limitations. Might time, space and matter simply be illusions? How do human intelligence and consciousness reflect the nature of physical reality? Does the existence of life on Earth derive from a blend of unique cosmological factors? Brave New Universe addresses these philosophical questions and more—and its conclusions prove most extraordinary!



The Great Beyond: Higher Dimensions, Parallel Universes and the Extraordinary Search for a Theory of Everything

Publisher: Wiley; illustrated edition edition (July 5, 2004) $32.50
LISBN-10: 047146595X ISBN-13: 978-0471465959 Hardcover: 336 pages

What strange new realms lie just beyond ordinary space and time? Could there be parallel universes, separated from us by the thinnest curtain, penetrable only by the invisible pull of gravity? Could the existence of higher dimensions unite all the forces of nature into a grand Theory of Everything?

Many decades ago, Albert Einstein, Theodor Kaluza, Oskar Klein and other scientists dreamt of unification by means of unseen hyperspace connections. Their visions persisted throughout the horrors of the Second World War, when their desire for unity clashed with the utter chaos around them. Young researchers escaping Europe joined Einstein in his plan and worked beside him as he ceaselessly modified his ideas. Even from his deathbed, Einstein asked for pencil and paper in a vain attempt to complete his scheme.

In recent years, Einstein's dream has been brilliantly revived through string theory, M-theory, supergravity and other unified models. Scientists are now grappling with the possibility that the universe has as many as 11 dimensions. They are designing clever experiments with the hope of discovering hidden portals to neighboring domains. Join the bold quest to explore higher dimensions, parallel worlds and the ultimate theory of the cosmos.

Yes, YOU!

What is on your mind? Why not write it down, send it in, and help enlighten yourself and others? Free expression is important and Phactum tries hard to provide a forum to express ideas and reactions to things going on in our chaotic world.

Let your thoughts be known and perhaps help improve the world. There are many worthy goals such as clearing the world of Homeopaths and other medical quacks, so pick a cause and let's Save the World! Why think small?

And now it is up to you: Express yourself.

Letters to the Editor

Editor: I just had to mention, for whatever it's worth, how impressive I found Phactum.

You must have boundless resources and energy to put it together as you do. I assume you don't have a staff.

I stopped reading Skeptical Inquirer because I'm not a skeptic. I was bored reading articles about why God can't exist. One must have doubts to be a skeptic, and I have none. I'm an atheist, which of course is ethically indefensible.

I continue to subscribe to the "Humanist Manifesto," but no longer to the magazine itself. I grew weary of all the articles based on the (unstated) assumption that all agnostics/atheists are liberal. (e.g. Bush-bashing is justified but doesn't belong in that magazine.)

Loved the Dalai Lama quote: If science proves some belief of Buddhism wrong, then Buddhism will have to change.

You're a busy guy. No reply is necessary...just wanted to let you know that I get what you're doing.

Rod Hoisington
Vero Neach, Florida

Editors note: Rod Hoisington has written his first novel, a mystery entitled "One Deadly Sister". The action takes place in Florida, the protagonist is a Philadelphian named Ray. See page 9.

Editor: From Megadeth's 1994 album Youthanasia we have the following track pointing out the ills of gambling, from the user and abuser views, as well as the concept "My thinking is derailed [by gambling]".

Train Of Consequences
Music and Lyrics by Dave Mustaine

I'm doing you a favor
As I'm taking all your money
I guess I should feel sorry
But I don't even trust me
There's bad news creeping up
And you feel a sudden chill
How do you do? My name is trouble
I'm coming in for the kill...
And you know I will

Chorus:
Set the ball a-rollin
I'll be clicking off the miles
On the train of consequences
My boxcar life O' style
My thinking is derailed
I'm tied up to the tracks
The train of consequences
There ain't no turning back

No horse ever ran as fast
As the money that you bet
I'm blowing on my cards
And I play them to my chest
Life's fabric is corrupt
Shot through with corroded thread
As for me I hocked my brains
Packed my bags and headed west

As an important aside, I would like to point out Heavy Metal music normally gets a bum rap, due to implications of excess anger and unlistenable music. The unlistenable part is a matter of aesthetics, and I hope we can all agree arguing the "correctness" of an aesthetic is a waste of time. The anger issue is a fair cop, but I will hasten to add that as far as critical thinking goes, Metal music is absolutely replete with those who question everything and have no fear to raise their objections.

Raising an objection myself, why does Phactum place so

much emphasis on the gambling issue? I would like to see more items on logic, pseudoscience, and developing critical thinking skills, not this strange mix of pseudomorality and politics. As someone once said to me, if they aren't cutting off heads, why do I care? Another's gambling has only the very slightest of effects on me (possibly none at all), so let's not care! I personally think this would be a very banal take on altruism, and hence the call of pseudomorality (since we find ourselves staring down a double standard). For example, I care about religion because it effects THE RELIGIOUS, for good AND bad. I strongly reject advice not to be concerned about my fellow man. Don't know what world that advice leads to. Maybe some people just don't know that religion actually does bad things to the religious, in some cases much worse than what gambling does do a gambler.

M. Paul Menga
Philadelphia

Ω Ω Ω

Various Ruminations

Collected/Written by Ray Haupt (with help from others)

Phactum Distribution

Phactum has now been delivered in two forms for about a year. We have radically reduced the number of printed newsletters delivered by US Mail, and have aggressively used electronic distribution by way of e-mail. Both methods have pluses and minuses and we solicit feedback for ways to improve both. You may have noticed that Phactum has increased in number of pages and we hope quality.

As always we seek articles and letters from readers, preferably in electronic format by way of the internet. Good thoughts are appreciated but Telepathic Communications are discouraged since my TTP (Thought To Print) device is unreliable since my ESP antennae have been exposed to chlorinated water..

New Zealand Possum Problems

The New Zealand Skeptics have recently reported some long ongoing concerns about possum infestation. It seems that in the 1830's possums were imported from Australia to start a fur industry. Unfortunately some possums did escape into the wild, and having no predators to keep their numbers in check, thrived and devastated the plants and animals native to New Zealand. There are now an estimated 70 million possums roaming about New Zealand.

Possum control has long been an issue in New Zealand but it seems that it has again boiled to the surface as a hot topic. One method of control is to drop poisoned bait in various locations throughout New Zealand. The poison of choice is known as 1080 (sodium fluoroacetate) which is used to kill mammalian pests. 1080 certainly kills some possums, and likely other animals such as stoats, ferrets, and weasels which were introduced into New Zealand in the late 1800's to counteract the plague of rabbits that inhabited the islands after having been introduced some years before.

Common brushtail possum

Something must be done to preserve the native flora and fauna. The poisoned bait tactic is not always popular as people worry about their children, dogs, and the water supply. Introduction of boa constrictors and other large snakes now rampantly slithering about Florida might accomplish the pest control task, but we hesitate to suggest that particular remedy.

Notice the front cover of this Phactum. It so happens that Nick Kim, a talented cartoonist, is a New Zealander who does have a rather unique idea for possum control. It is doubtful that Nick's solution will become popular, but two things are clear: that more possum research is needed and that messing with Mother Nature can be a difficult proposition.

The New Zealand Skeptics, by the way, have an outstanding newsletter. Their website is:

http://www.skeptics.org.nz/

"Then I say, the earth belongs to each of these generations during its course, fully and in its own right. The second generation receives it clear of the debts and incumbrances of the first, the third of the second, and so on. For if the first could charge it with a debt, then the earth would belong to the dead and not to the living generation. Then, no generation can contract debts greater than may be paid during the course of its own existence."

-- Thomas Jefferson to James Madison, 1789

Ban Smoking on NJ Beaches ...

was the headline for an editorial in the Philadelphia Inquirer, September 29, 2009.

A State Senator in New Jersey, Barbara Buono, has determined that 50,000 people a year die of second hand smoke inhalation nationwide. Her solution is to ban smoking on 127 miles of New Jersey beaches. Sadly, the Editorial Department of the Philadelphia Inquirer agrees.

There is little question that smoking is an unhealthful and dirty addiction. Likewise, smokers and non-smokers subjected to second hand smoke are exposed to various noxious fumes and are put at some risk of health problems. The second hand smoke risk has been long debated as to its extent, but is there little doubt that some people are quite sensitive to smoke fumes. An asthmatic child, for example, might well react adversely in a second hand smoke environment.

However, in this story we are talking about smoking outdoors, on normally breezy beaches. Just what level of second hand smoke concentration can possibly exist in such a circumstance? The likely answer is that the concentration is vanishingly small, exposure time very brief, and the net result of a ban will be inconsequential. One must wonder if that asserted 50,000 deaths per year from second hand smoke is at all realistic. Is this story not a bit "homeopathic" in rationale?

This proposed legislation is, in my opinion, just one more bit of government intrusion fortified by pseudoscience where oddly informed Senators such as Barbara Buono should butt out. Personally I do not care for smoking and would be happy if people did on a voluntary basis eschew cigarettes at outdoor locations such as beaches. Butts belong on beaches so long as they are not of the tobacco variety.

.

Misguided senators pushing for quackery coverage.

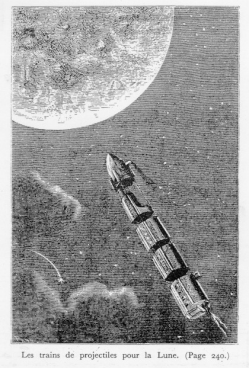
Dr. Stephen Barrett in his weekly Consumer Health Digest of October 1, 2009 reports on Alternative and Complimentary Medicine:

Senators Tom Harkin (D-IA), and Barbara Mikulski (D-MD), with support from Senator Mike Enzi (R-WY), have sponsored a Health Care Reform Bill amendment that would prohibit insurance policies from "discriminating" against any state-licensed or certified health care provider. **http://help.senate.gov/BAI09I50_xml.pdf** The measure, contained in Section 2713 (p. 30), would prevent insurance programs from excluding acupuncturists, chiropractors, homeopaths, massage therapists, and naturopaths, but the extent to which they would have to be covered is unclear. In July, the Boston Globe reported that the Senate committee on Health, Education, Labor and Pensions agreed to the measure, but the Senate Finance Committee would have to draft language about potential reimbursement, the matter would then be debated on the Senate floor, and a similar amendment might be offered in the House. [Kranish M. Senators seek coverage for alternative therapies. Boston Globe, July 24, 2009] **http://www.boston.com/news/nation/articles/2009/07/24/senators_seek_coverage_for_alternative_therapies/?page=2** Harkin, who seems hopelessly confused about the boundary between science-based care and quackery, keeps claiming that "alternative," "complementary," and/or "integrative" practices are more focused than mainstream medicine on preventive care and can save money, when just the opposite is true. [Statement by Senator Tom Harkin. Senate heating on integrative care: A pathway to a healthier nation, Feb 26, 2009] **http://harkin.senate.gov/blog/?i=0b48b652-1947-405e-b4db-622f58d2a76c**

The Center for Inquiry's Office of Public Policy, which lobbies for scientifically sound government policies, has criticized Harkin's efforts to enact legislation to cover unsubstantiated and implausible treatments. Instead, CFI recommends that any health care reform bill should prohibit the use of taxpayer dollars to cover non-evidence-based medicine. CFI further recommends that Congress greatly reduce or eliminate funding for the NIH National Center for Complementary and Alternative Medicine, because a decade of study has shown that most alternative "cures" work no better than placebos. [Mielczarek EV. A Fracture in Our Health Care: Paying for Non-Evidence Based Medicine. CFI Office of Public Policy, Washington, DC, Sept 22, 2009]

http://www.centerforinquiry.net/uploads/attachments/A_Fracture_in_our_Health_Care_Paying_for_Non-Evidence_Based_Medicine.pdf

Technobabble exposed


Les trains de projectiles pour la Lune. (Page 240.)

The September 2009 edition of Skeptical Briefs has an article entitled "Jules Verne: The Founder of Technobabble," by one Tom Napier, a stalwart Critical Thinker and long time member of PhACT. It shows that some modern pseudoscientists are simply recycling Victorian science fiction

NFL Brain Injury Study

The National Football League has recently reported in a commissioned study that football players have a greater incidence of dementia and other memory related diseases than the rate suffered by men in similar age groups in the general population. Given the high impact nature of football is it surprising that repetitive concussions, even if seemingly harmless at the time, might contribute to eventual brain injury? The question is likely to be hotly debated as both health and financial stakes are high.

If one were to google "boxing dementia" one will quickly find the term "dementia pugilistica" which is a well known condition caused by repetitive concussive and sub-concussive

blows over a period of years. It is a common condition among professional boxers and it is estimated that up to 15% of boxers eventually suffer the cumulative effects of a multitude of punches. The symptoms and treatment can be similar to Alzheimer's or Parkinson's disease. Some well know sufferers of this dementia are Joe Louis, Sugar Ray Robinson, Leon Spinks, and Muhammad Ali. Even the best are not immune.

The padded gloves used in modern boxing are meant to spare pugilists of injuries, mainly of the face, but one might wonder if boxing would be made safer by going back to bare knuckles fighting. Certainly more eyes would be lost, more noses and hands broken, but punches would also likely be less frequent and less brain rattling.

And there is this too: in both football and boxing far more time is spent in practice than competition. The most powerful blows to the head will generally be in the course of competition, but the number of blows in training more frequent. Good arguments for touch football and a ban on boxing.

The NFL study can be found here:
http://www.braininjurylawblog.com/brain-injury-news-new-nfl-study-confirms-longterm-consequences-of-concussions.html

Global Warming - Solutions?

The Global Warming debate, like our planet, constantly heats and cools, but from Washington, DC there does appear to be a special abundance of confusion even beyond the normal surly partisan bickering that is the norm. That we do have a problem is a certainty, whether that problem really be Global Warming aggravated by excessive greenhouse gasses, or the matter of petroleum supply being in large measure controlled by unsavory political regimes, or both.

The popular solutions to either situation revolve largely around extraction of electrical power from the sun and the wind. Personally, I like the idea of clean and inexhaustible energy but I am skeptical that wind and solar energy power extraction are sufficient to keep a modern society operating at a sustainable cost.

Electrical demands in First World countries are constantly rising. CFL lighting and improvements in insulation and motor technology can help reduce that extra demand, but in the near future electric motor vehicles will be added to the demand for energy. What happens then?

I invite Phactum readers to discuss the matter of electrical power production by wind and solar means by way of articles and letters. Are private home solar panel arrays a worthwhile investment? Should individuals have their own wind mill? Should electric company customers pay a premium to generate "green energy"? These are all good questions. What do you think?

Ω Ω Ω

Soundbites

Compiled by Becky Strickland

♣ "Wikipedians have discovered that the wisdom of crowds cannot prevent the idiocy of individuals." The editor of The Guardian, London, on new restrictions that prevent ordinary users from making any immediate changes to Wikipedia entries on living people. Reported in New Scientist September 5, 2009.

♣ "The world would be a better place if everybody learned to think like scientists. I don't mean they should know more science, although that would be nice too. I mean that everybody should base their beliefs upon evidence, and be highly suspicious of any beliefs that are not based on evidence." Richard Dawkins, on being asked by *New Scientist* magazine 'what would make the world better?'

♣ "The Ghost Hunters examine 'haunted houses' with overtuned instruments. Combing your hair would set them off. I have never said that there are no ghosts. I'm merely saying, 'show me' " James Randi, Parade Magazine, October 4, 2009.

Ω Ω Ω

PhACT, as a way to encourage Science Education, is raising funds to be used as prize money for student winners at the Bucks County Science Research Competition which is an affiliate of Delaware Valley Science Fairs, the coordinator for High School and Middle School science fairs in the tri-state area (PA,NJ,DE). The competition will be in March 2010. Small donations are desired and appreciated. Goal = $300

September 2009 Meeting Report

By Andrew Stoner

PhACT's September 2009 meeting was led by Dr. Lewis Mifsud, a physicist and electrical engineer whose topic was **Science, Pseudoscience, and the Law**.
Andrew Stoner reports:

Scientific Evidence and Pseudoscientific Evidence

Science is used in laboratories, hospitals, and schools, among many other places. One surprising, yet appropriate place is in court. Science is known for being accurate, precise, and reasonable. Because of this the use of science to present evidence has undergone changes in the courtroom.

The first use of science in court was in 1923. The results of a lie detector were presented as evidence, but were not accepted by the judge. Back then if the scientific community did not agree with the scientific evidence, the evidence was not accepted. This continued for 52 years till federal rules of scientific evidence were defined.

The necessity for regulation of federal standards were not only needed for proven scientific facts presented as evidence, but also the dismissal of false or misleading facts presented as science, known as pseudoscience. Pseudoscience is a methodology, belief, or practice that is claimed to be scientific, or that is made to appear to be scientific, but which does not adhere to an appropriate scientific methodology, lacks supporting evidence or plausibility or otherwise lacks scientific status, for example, the 1993, "Determination of Fire Origin and Cause." This evidence argued facts that were common myths believed by many. The idea that, fire seeks oxygen, blistering of concrete is proof of the presence of flammable liquid, and collapsed furniture springs are an indication of an accelerated fire, were presented in courts as scientific facts. Evidence or pseudo sciences like these led to many unfair rulings in insurance claim suits and even arson convictions.
Pseudoscience was allowed to be presented in court because of the 1975 Federal Rule of Evidence 702. The rule stated that there was science involved in everything, so anything could be used as science and that the evidence had to be part of the testimony of an expert in the field of the scientific evidence, whether that expert is a rocket scientist, chemist or even a plumber. The problem with the rule was that it defined an expert to pretty much be anyone.

It was not till the 1993 Daubert case where the plaintiffs who claimed the drug Bendectin was the cause of limb reduction defects. The suit went to district court where the plaintiffs tried using rule 702 of the federal rules of evidence, but lost the case based on a well credentialed expert with published material citing the 1923 general acceptance rule. This was a case of an expert's testimony versus another expert's testimony which was the same result of scientific eidence before rule 702. The scientific community in the form of published material supported the defense. The plaintiffs appealed the ruling, and responded with eight experts reanalyzing the published material presented before, but it was not till the case was taken to the Supreme Court where they realized some regulation needed to be in effect. The United States Supreme Court overruled the 1923 general acceptance rule and replaced rule 702.

I worry that, especially as the Millennium edges nearer, pseudo-science and superstition will seem year by year more tempting, the siren song of unreason more sonorous and attractive. Where have we heard it before? Whenever our ethnic or national prejudices are aroused, in times of scarcity, during challenges to national self-esteem or nerve, when we agonize about our diminished cosmic place and purpose, or when fanaticism is bubbling up around us - then, habits of thought familiar from ages past reach for the controls. The candle flame gutters. Its little pool of light trembles. Darkness gathers. The demons begin to stir.

Carl Sagan (1934 - 1996)

The replacement of rule 702 added four validation criteria for scientific evidence to be presented in court. The first was testability which meant that the results had to be predictable, or repeatable. The second criterion was the knowledge of potential error. With this knowledge the accuracy of necessary results was determined. Peer review was implemented so that the other side of the case was able to conduct their own tests. The last criterion was that a general acceptance could only contribute to the evidence, and would not have a negative effect if not. The Daubert's criteria demanded accuracy and precision in measurements and results, error rates in products and processes, and testing to prove or falsify results presented as evidence.

The evolution of scientific evidence in the courtroom shows that as we learn more and more about our universe, older theories once thought to be true are proven to be false. This is why regulation was needed to ensure a fair trial.

Andrew Stoner *is a Philadelphia Community College student of Dr. David Cattell, Chairman, Physics Department.*

The Bicentennial of

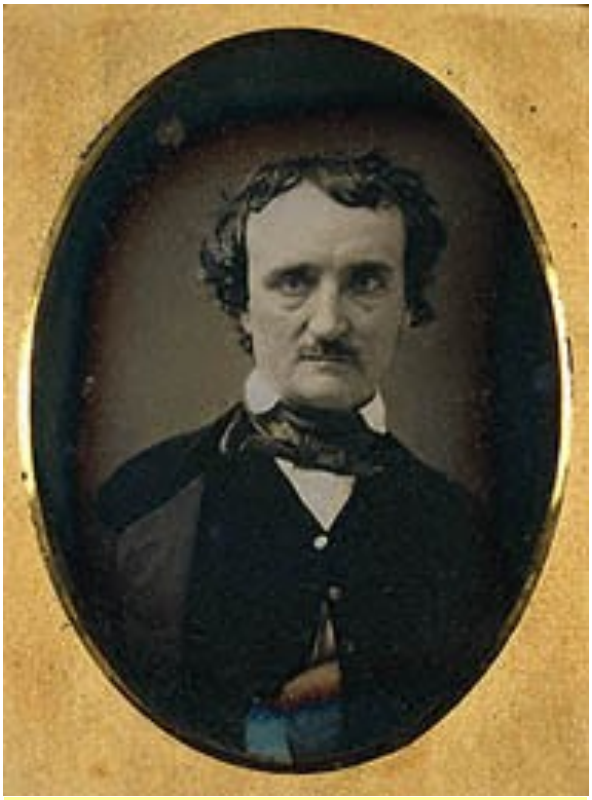
Edgar Allan Poe

(January 19, 1809 - October 7, 1849)

The year 2009 marks the bicentennial of several notable people in history. To skeptics and evolutionists this year is a big deal and the birthday of Charles Darwin on February 12, 1809 has been well observed. That was quite a day for famous births as on that same day Abraham Lincoln was born in Hardin County, Kentucky. A less noted bicentennial is that of Edgar Allan Poe, born in Boston, Massachusetts on January 19, 1809.

Edgar Poe was the second child of actress Elizabeth Arnold Hopkins Poe and actor David Poe, Jr. In 1810 David Poe abandoned his family and two years later Edgar's mother, Elizabeth, died of consumption at age 24. Edgar was taken into the home of John Allan, a Scottish businessman in Richmond, Virginia, who dealt in a variety of goods including tobacco, cloth, wheat, tombstones, and slaves. The Allans never formally adopted Edgar but they did give him the name "Edgar Allan Poe".

Edgar attended grammar school in Scotland and near London and in 1820 moved back with the Allans to Richmond, Virginia. In February 1826 Poe enrolled at the new University of Virginia in February 1826 to study languages. The university, in its first year, was established on the ideals of its founder, Thomas Jefferson. Poe gave up on the university after a year and traveled to Boston in April 1827, working as a clerk and newspaper writer. He adopted the pseudonym Henri Le Rennet. At the age of 18, Poe enlisted in the army under the name Edgar A. Perry and was ultimately sent to Charleston, South Carolina. While in Boston and South Carolina, Poe wrote his first collection of poetry, Tamerlane and Other Poems, and eventually rose to the rank of sergeant major. Poe entered the West Point Military Academy in July 1830, however he began to gamble and drink heavily and in March 1831, was dismissed from West Point.



Edgar Allan Poe,
by Unknown American Photographer,
Late May to early June 1849

In 1835, his grandmother, Elizabeth Poe, died and he moved back to Richmond with his aunt and cousin. On 16 May 1836, Poe married his 13-year-old cousin Virginia Eliza Clemm and moved with his new bride and his aunt to New York City and then Philadelphia. It was in Philadelphia that Poe expanded his career as a fiction writer.

Poe lived in Philadelphia from the summer of 1838 to April, 1844. and it was here that he wrote many of his finest works. He worked as editor of two nationally prominent monthly magazines and published over thirty stories, including such Gothic classics as "The Pit and the Pendulum" and "The Tell-Tale Heart". Poe is generally credited with having invented the detective story while in Philadelphia, writing "Murders in the Rue orgue" (1841) and "The Mystery of Marie Roget" (1842-1843).

In 1842, Poe's wife Virginia began to fall ill. In 1847, at age 24, she died of consumption as did Poe's mother. In 1849 Poe wrote the poem "Annabel Lee". It was his last complete work and is generally thought to have been inspired by the death of his wife, Virginia Eliza Clemm Poe.

On October 3,1849, Poe was found unconscious on a Baltimore street. He spent his last days delirious in hospital. On 7 October 1849, Poe uttered his last words, "Lord help my poor soul." He was buried the following day in Baltimore's Presbyterian Cemetery. A brief obituary in the Baltimore Clipper noted that Poe had died of "congestion of the brain", a euphemism in that epoch for those who die of unsavory causes such as alcoholism.

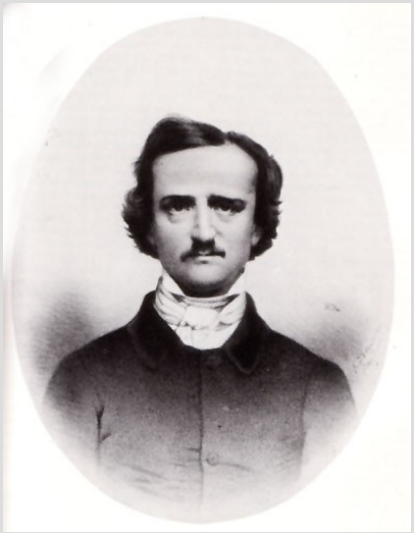
Annabel Lee

It was many and many a year ago,
In a kingdom by the sea,
That a maiden there lived whom you may know
By the name of Annabel Lee;
And this maiden she lived with no other thought
Than to love and be loved by me.

I was a child and she was a child,
In this kingdom by the sea;
But we loved with a love that was more than love-
I and my Annabel Lee;
With a love that the winged seraphs of heaven
Coveted her and me.

And this was the reason that, long ago,
In this kingdom by the sea,
A wind blew out of a cloud, chilling
My beautiful Annabel Lee;
So that her highborn kinsman came
And bore her away from me,
To shut her up in a sepulchre
In this kingdom by the sea.

The angels, not half so happy in heaven,
Went envying her and me-
Yes!- that was the reason (as all men know,
In this kingdom by the sea)
That the wind came out of the cloud by night,
Chilling and killing my Annabel Lee.



But our love it was stronger by far than the love
Of those who were older than we-
Of many far wiser than we-
And neither the angels in heaven above,
Nor the demons down under the sea,
Can ever dissever my soul from the soul
Of the beautiful Annabel Lee.

For the moon never beams without bringing me dreams
Of the beautiful Annabel Lee;
And the stars never rise but I feel the bright eyes
Of the beautiful Annabel Lee;
And so, all the night-tide, I lie down by the side
Of my darling- my darling- my life and my bride,
In the sepulchre there by the sea,
In her tomb by the sounding sea.

The Edgar Allan Poe National Historical Site

Located in Philadelphia at 532 North Seventh Street (near 7th & Spring Garden Street) the Poe House Hiatoric Site is operated by the National Park Service. The exhibition is free and is open Wed. - Sun., 9am - 5pm. **http://www.nps.gov/edal/index.htm**

Halloween is a busy time at the Poe House and it just so happens that there is an event on Thursday, October 29th, 6:30pm & 7:30pm

"Poe's Cask"

Poe narrates and brings to life one of his most horrific stories. Poe is Montresor, who arranges for a memorable wine tasting for his "friend", the unlucky Fortunato. Descend into the basement with Park Ranger actors. (Not for claustrophobics.)

The Murders in the Rue Morgue: The Dupin Tales

By Allan Poe
Introduction by Matthew Pearl

PaperbackPaperback: 160 pages $9.95
Publisher: Modern Library (May 23, 2006)
ISBN-10: 0679643427 ISBN-13: 978-0679643425

Includes The Murders in the Rue Morgue, The Mystery of Marie Rogêt, and The Purloined Letter

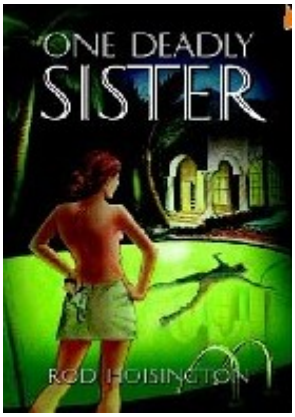
Between 1841 and 1844, Edgar Allan Poe invented the genre of detective fiction with three mesmerizing stories of a young French eccentric named C. Auguste Dupin. Introducing to literature the concept of applying reason to solving crime, these tales brought Poe fame and fortune to live on. Years later, Dorothy Sayers would describe "The Murders in the Rue Morgue" as "almost a complete manual of detective theory and practice." Indeed, Poe's short mysteries inspired the creation of countless literary sleuths, among them Sherlock Holmes. Today, the Dupin stories still stand out as unique, utterly engrossing page-turners. This Modern Library edition reproduces the definitive texts of the three tales. It includes an enlightening Introduction by novelist Matthew Pearl and an Appendix, "The Earliest Detectives."

One Deadly Sister:

Woman-trouble Can Be Deadly

by Rod Hoisington

Paperback: 242 pages $16.99
Publisher: EnteraBooks (September 2, 2009)
ISBN-10: 0615298524 ISBN-13: 978-0615298528



Ray Reid doesn't come looking for trouble, he simply wants to get past his Philadelphia divorce and start a new life, but woman-trouble comes looking for him. Unfortunately, he arrives in the small Florida oceanside town just as someone decides to murder the local gubernatorial candidate. Reid doesn't have a clue about women and gets seduced and framed—by a 70-year-old in a thong. He's the perfect target for the local prosecutor who figures he has the ideal trial that'll propel him to the US Senate. Reid hasn't bothered with his estranged sister up north for years but now, as a stranger in a hostile town, she's his only hope. She holds an old grudge and resents having her life interrupted. After first telling him to go to hell, she reluctantly decides to at least check out her brother's predicament. This small step leads to an ever-increasing entanglement of deceit, double-cross, and danger, as she can't leave well-enough alone and goes after the real killer in this fast-paced mystery.
Available at Amazon.com

ALZHEIMER'S DISEASE: AN EVER-GROWING CONCERN

BY DANIEL GLASS

As more and more people in the developing world are living well into their 80's and beyond, Alzheimer's Disease (or AD for short) is an ever-growing concern. 5.3 million Americans have AD, and the number is expected to rise over the next ten years, as roughly 50% of people develop Alzheimer's by age 85. AD and other dementias triple the cost of healthcare for Americans 65 and older, with a direct and indirect cost of over $148 billion annually to Medicare, Medicaid, and businesses. The medical research field is in a race against time to find a prevention or cure. eventually, so it is worth knowing about the disease, to prevent yourself from being suckered by opportunists.

AD is a neurodegenerative disease in which brain cells are lost, eventually leading to dementia, defined as serious impairment in memory, attention, problem-solving, and language. The cognitive and behavioral decline seen in AD is the direct result of this (as-yet) irreversible neuronal death; cells in certain regions of the brain die, leaving the person progressively less able to learn, recall, and problem-solve. Eventually, the atrophy moves to parts of the brain that control basic behaviors, leaving the patient completely dependent on caregivers for food and hygiene. When the innermost brain regions controlling autonomic functions (respiration, heart rate, etc) are affected, the patient dies. Life expectancy after diagnosis is eight years, on average.

The two legitimate Alzheimer's drugs currently on the market are memantine (brand name Namenda) and donepezil (brand name Aricept). They alleviate cognitive and behavioral symptoms by slowing the progression of mild to moderate AD, improving the efficiency of the remaining healthy neurons, but they cannot reverse or stop the disease. The medical research field, with an eye toward a cure, is currently conducting clinical trials on almost two dozen experimental drugs with a modicum of success so far. The key point is that even if a drug is found that can halt the progression of AD, the majority of functioning that a patient has already lost would still be irretrievable, since it is the result of dead brain cells. The only way to reverse the atrophy would be through the use of stem cell treatments to grow new neurons, a research area which has until recently been completely stymied by political quagmires.

Therefore, any "alternative" remedy that purports to reverse AD is claiming the impossible. A person cannot think properly with an atrophied brain any more than she can grasp objects properly with a missing hand. Claims by natural healers that they can restore lost cognitive function in AD patients are false.

Wherever there is a medical problem in need of a solution, quacks will step in and try to turn the situation to their advantage. Alzheimer's Disease is no exception. Odds are that you or someone you know will have to deal with AD

Ginkgo biloba is one of the oldest living tree species. It is cultivated around the world for its medicinal properties and aesthetic value. The seeds and the leaves have been used in traditional medicine to treat respiratory diseases, circulatory disorders, sexual dysfunction, and loss of hearing. Ginkgo biloba extract exhibits anti-infective, chemopreventive, anticancer, and cytotoxic effects in vitro.

Supplementation with Ginkgo improved cognitive performance in healthy adults, and demented patients but data are conflicting. However, findings from the Gingko Evaluation of Memory (GEM) study, the largest trial of Ginkgo for dementia so far, indicate that Ginkgo is ineffective in decreasing the incidence of dementia or Alzheimer's disease in elderly individuals.

Ginkgo biloba may also reduce the severity of acute mountain sickness, but the evidence is mixed. More studies are warranted.

Ginkgo has also been implicated in reducing the risk of ovarian cancer but this is based only on epidemiological and biological data.

Orally administered capsules of Ginkgo biloba exocarp polysaccharides reduced tumor area in patients with gastric cancer. In another study, an injectable form of Ginkgo extract and 5 -flurouracil (**http://www.mskcc.org/mskcc/html/69235.cfm**) were administered to patients with advanced colorectal cancer. Data suggests benefits of the combination therapy. Further studies are needed to determine the anticancer potential of oral Ginkgo supplements.

Ginkgo use is associated with adverse effects and it can also interact with prescription medications. Ginkgo supplementation for dementia may increase risk of stroke. Patients should use caution before taking Ginkgo supplements.

From the Memorial Sloan Kettering Cancer Center website:
http://www.mskcc.org/mskcc/

Herbal supplements such as ginkgo biloba which are supposed to sharpen memory and attention may help slightly, subject to the same considerations and mixed results as found with non-demented subjects, but a 2008 study found it ineffective at treating dementia. Antioxidants such as Vitamin E and fish oil likewise failed to show any significant beneficial effects, but judicial use as approved by a physician can't hurt, and may reduce the risk of cancer and certain cardiovascular problems. Most other alternative therapies claimed to help AD fall into this category: dietary or supplementary options which enjoy varying levels of support from correlational studies, and which are healthy at best and harmless at worst. Some examples of these are curcumin (the compound in the spice turmeric), B vitamins, fruit and vegetable juices, silica in drinking water, green tea, and physical and mental exercise. Homeopathic remedies tend to be chemically inert and usually have no effect, positive or otherwise, on brain chemistry.

Remember, the most that any "alternative" remedy can likely do is delay or mitigate the severity of AD symptoms. Until medical science finds a way to regrow brain cells in damaged brains, any Alzheimer's "cure" that sounds too good to be true is very probably, well, not true.

Daniel Glass *grew up in Mississippi and now lives in Philadelphia. He got his Psychology B.A. at University of Pennsylvania 2007 and is currently work at the Penn Memory Center before hopefully going on to get a PhD in Psychology.*

Alois Alzheimer

(June 14, 1864 - December 19, 1915)

Alois Alzheimer was a German psychiatrist and neuropathologist who first identified the symptoms of what is now known as Alzheimer's Disease. He was born in a small town called Marktbreit, Bavaria, where his father served in the office of notary public.

Alzheimer attended Aschaffenburg, Tübingen, Berlin, and Würzburg universities. He received a medical degree at Würzberg University in 1887. In the following year, he spent five months assisting mentally ill women, before he took an office in the city mental asylum in Frankfurt am Main: the Städtische Anstalt für Irre und Epileptiche (asylum for lunatics and epileptics).

In 1906, German psychiatrist and neuropathologist Alois Alzheimer summarized the case of Auguste Deter, who had told him early in her treatment, "I have lost myself." She had been a normal, healthy woman, but beginning at age 51 she developed progressive memory lapses, disorientation, aphasia (inability to use language), and she had grown unable to care for herself, eventually dying at the age of 55. After her death, Alzheimer examined her brain under his microscope, and described the plaques that had accumulated in the ordinarily empty space between nerve cells, and tangles of string-like substances, now known to be characteristic of the disease that bears Alzheimer's name.

Alzheimer was the co-founder and co-publisher of the German journal called Zeitschrift für die gesamte Neurologie und Psychiatrie. His other research focused on epilepsy, Huntington's chorea, and general paralysis among the insane. In mid-December 1915Alzheimer fell ill on the train to University of Breslau where he had been appointed professor of psychiatry in 1912. It is thought that he had a streptococcal infection and subsequent rheumatic fever and kidney failure. He died of heart failure on December 19, 1915 at the age of 51, in Breslau.

"Ockham' s Razor: Shaving 101 "

by Paul Schlueter III

"A rule in science and philosophy stating that entities should not be multiplied needlessly, which is interpreted to mean that the simplest of two or more competing theories is preferable, and that an explanation for unknown phenomena should first be attempted in terms of what is already known." - (After William of Ockham, 1285? - 1349.)
The American Heritage Dictionary, 2nd College Edition, 1985

In the popular New Age Sci Fi movie "Contact", Ockham's Razor was offered as the ultimate test of truth, enabling the screenwriters to "prove" in the final outcome that there must be some spiritual realm beyond this life, in which the heroine was able to make contact with an alien intelligence appearing in the form of her late father, and acquire Faith in a manner unique to human experience (yet, apparently well understood by the alien race which contacted humans to offer the Revelation via radio waves received by astronomers.) Thus, one of academia's arcane propositions was both brought into common usage, and twisted almost beyond recognition to support a fantastic premise.

Sometimes called Occam's Razor, the concept is far from being the fundamental rule of evidence that some present it to be. In the movie version, it was approximately stated as "the simplest of two explanations must be the true one, and on its face this statement is ridiculous. While simplicity is emotionally comforting, sometimes facts can be quite complex and messy, and reasoned explanation often requires great sensitivity to subtle factors and multiple complications. Is Newtonian Physics "untrue" on the grounds that it requires a complex and advanced understanding of mathematics to understand it? Does the complexity of Calculus make all the phenomena it helps to explain "false", simply because the simple addition and subtraction of basic math is "more true?" "Simplicity" is not the ultimate measure of truthfulness, and interpretation of Ockham's Razor which rely on that idea are generally little more than devious sophistry.

Ockham chooses a razor

Cartoon by Chris Madden
http://www.chrismadden.co.uk/moon/jigsaw.html
Used by Permission

The AHD definition shown above does little to help clarify the matter. As in many philosophical matters, the interpretation of each substantial word can shift the overall meaning of the phrases, and this applies throughout the definition above. For "entities", let's use the second AHD definition: "2. The existence of something considered apart from its properties." In that sense, the rule suggests that the simplest FORM of an entity should be preferred. The remaining definitions are just existential statements, and serve in no way to define what an entity might actually be. Because the very subject of the rule (entities) is so generally defined, it serves little purpose unless it is interpreted so that it applies to a specific situation. I propose that a better term might have been "causative factors", since these are often the root subject of scientific inquiry. Restated, then:
"Causative factors should not be multiplied needlessly."

Now the rule begins to come clear: By refraining from "needlessly" multiplying causative factors, we stick to the spirit of the classical interpretation (the part about simplicity), while crucially preserving the

opportunity for considering complicating factors where the need exists. Thus, if the motions of the planets (as actually observed) are "disturbed" (with respect to simple, mathematically precise orbits), the scientist is free to hypothesize the effect of other planetary masses which might not have previously been recognized. In fact, just such complicating factors have led to the discovery of dozens of extrasolar planets, because their own stars wobble slightly as the result of orbiting bodies which we can't quite image with direct observation.[1] Supporting evidence arises from the minute dimming of starlight that occurs when an extrasolar planet transits (passes in front of) its sun (which also gives us, by use of spectrum analyses, important clues as to the makeup of extrasolar planetary atmospheres!) Our great benefactor, Sir Isaac himself, failed to shave with Ockham when he wrongly posited that "the hand of God must be necessary to occasionally correct the orbits of celestial bodies; Newton (1642 – 1727) might have believed that God was the simpler (and therefore true) explanation, when it simply became too complex for his own extraordinary mathematic grasp to factor in all the many gravitational effects within this solar system, which happen to average one another out to a rather magnificent natural equilibrium (punctuated by the occasional comet or meteor.) Orbits do sometimes decay, collisions occur, and in the vastness of time, the solar system changes, but all the rules for this can be found within the math. Bringing in a supernatural entity to keep it all "in order" is unnecessary, and THAT'S the cutting edge of Ockham's Razor!

So now we come one step closer to grasping the most useful aspect of Ockham's little rule. By accepting, as a rule of ASSUMPTION, the final clause of the definition above (the part about "in terms of what is already known"), we FIRST seek explanations within the NATURAL order of causative factors. In fact, we have not succeeded in coming to "know" who, what, or where any "God" is, which leaves him solidly within the realm of the unknown. By distinct contrast, we have come to know a great deal about the natural universe, and about natural causes of phenomenon, so if we rely on what we already actually know, we find ourselves tightly constrained to natural causative factors. So, to further clarify the rule with yet another interpretation:

"Causative factors should not be multiplied needlessly, nor with refuge to the supernatural."

Well, right there we've cut Ockham's Razor loose from the manipulations of anyone who might seek to use it to "prove" the existence of any deity, and it just so happens that we've ruined the great revelatory moment of the movie "Contact. Oh, well... I hope there weren't too many of us who had founded our philosophies on a Hollywood storyline.

Finally, I happen to think that it is important to recognize the benefits of simplicity, where it is practical. Anyone who has actually BUILT things for himself recognizes that the more parts you use, the more parts there are to get broken. The more systems you have, the more likely it becomes that a system will develop a fault. The more complex an idea or object becomes, the more difficult it is to understand it, to operate it, to fully appreciate it. The whole idea behind the first "choppers" was to remove everything from the motorcycle that wasn't absolutely essential to its operational function, and then to "perfect" the functionality of what was left! As such, some bikers still pursue the purest form of the chopper builder's art, a task that relies heavily on the builder's practical application of Ockham's Razor. It's all about removing the extraneous, the unnecessary, and the clutter! What's left is as pure a motorcycle as the builder can create. The same goes for those great old muscle cars, containing nothing but a drive train, a frame and chassis, and wheels with brakes (some even skimp on upholstery!) Guitarists often praise the fancy axes and amps, but when it comes right down to getting their favorite tones, many will reach for the simple old Strat and a single-ended, Class A tube amp. Everywhere we look, the best technologies are those that require the least fidgeting and adjustment; an "on" switch, a simple selector for function, and little else. Sadly, the same rule applies to our thinking... we so frequently look for “the simplest answer" that we will often accept the first thing that "feels" sufficient, even to the point of ignoring important alternatives, caveats, consequences, and precautions. I happen to think that this is one of the greatest reasons that we, as a species, are unlikely to ever move beyond superstition and religion; it's just SIMPLER to accept and live by a doctrinal, dogmatic set of guidelines than to stop and think about everything we're about to do as we go about the business of living. Simplicity is APPEALING, at a level that we cannot seem to ignore. So, while we need to pursue simplicity where we can, it's also important to recognize that we must usually also consider at least a few complicating factors (helmets and turn signals on the chopper, mufflers on them and the muscle cars, volume knobs and grounded plugs on the amps, and actual consideration and thought in our ideologies.) So, one last amendment to Ockham:

"Causative factors should be exhaustively sought and understood, yet not be multiplied beyond rational need, nor with refuge to the supernatural. And, simplicity should be sought, where it makes good sense."

Sorry, Ockham... your Razor needed a bit of sharpening, but I think it cuts pretty well now.

P.S. Just so you know, the author wears a full beard. Go figure!

Footnote #1: In the interest of absolute accuracy, in late 2008 astronomers were finally able to observe a distinct celestial object which is believed to be the first extrasolar planet, orbiting closely to its sun. To the author's knowledge, only one of the ovr 300 extrasolar planets discovered thus far has actually been directly observed.

Ω Ω Ω

What To Do, When It's You

BY Paul Schlueter III

As skeptics and critical thinkers, we're generally the ones who come into an event's investigation pretty late in the game, after the usual credulous parties have had their poke at the corpus, as it were. But it's worth considering just what it might be like if YOU happened to be the one who saw something mysterious, who turned out to be first on the scene after something previously unknown occurs. Hey, it COULD happen...

Here's my quick list of what to do, and how to record your experience, in the hope that you'll be quite well prepared when someone comes along to debunk you, after the fact.

NOTE THE TIME AND PLACE - Any self-respecting critical thinker needs to always have a trustworthy timepiece, a notepad, and a pen and pencil, all within easy access. Important things to note are:

- The time of the event, or when you took notice of it, as well as its physical location or apparent direction.
- Your location at the time, what you were doing, how you became aware of the event (sight, sound, etc.), and who you might have been with.
- What it was that you initially perceived (a subjective report), simply recording impressions and sensations, without trying to explain anything.
- Anything else that was going on in your area, or that of the event, which might help identify the time and place of events as they relate to other events. If it happens just as Jay Leno introduces David Letterman as a guest, that's the sort of coincidental event that will clearly mark the event's timing in everyone's mind.
- If you also happen to have any other sort of recording device(s) handy, turn them on and start talking. Don't stop taking notes (after all, the recorder may fail...), but as early as possible, start backing up your subjective observations with audio, video, and any other media you can record.

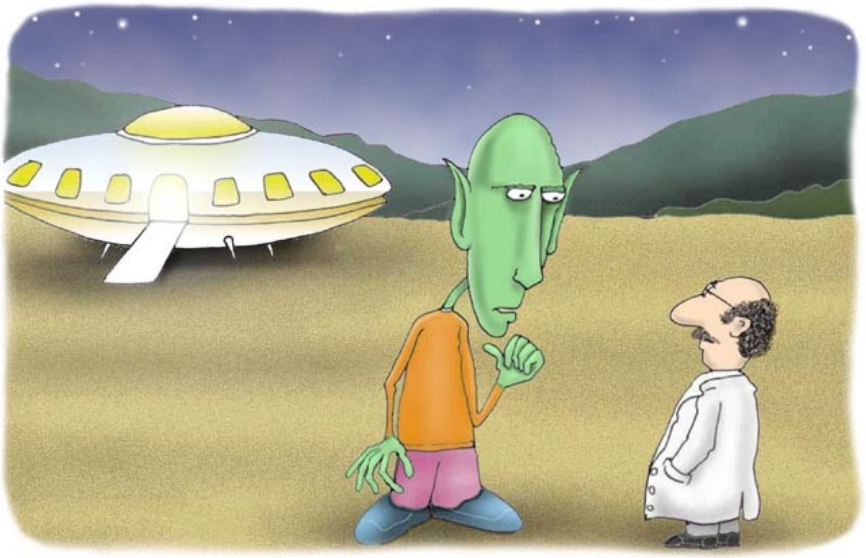
Cartoon by Dave Lowe
http://www.paraabnormalthecomic.com/
Used by Permission

ALERT OTHERS - If it's a really big splash of an event, everybody around will be aware of it, and paying attention already. But some events are more subtle, and you may be the only one who notices. Call it to the attention of others, and suggest that they, too, make note of it in whatever way they can. This would obviously be the time to alert the authorities (assuming that you aren't worried about government cover-ups, or anything like that.) After alerting other potential witnesses and the authorities, you might consider alerting non-emergency authorities, such as professors, scientists, other trusted observers (don't leave out your fellow critical thinkers... we want to be a part of it, too!), and maybe a media reporter (AND his competition, just to keep him honest).

CHANGE YOUR PERSPECTIVE - This happens to be a natural inclination; we all want to get a better view (or perhaps to hide, instead.) It also happens to be a valuable way that a critical observer can contribute to the understanding of an event, later. If you move straight toward the event, your perspective won't change much, so that's not always the best course (risk may also be a factor.) Instead, move your position far to one side or another; this offers you the important tool of parallax viewing, which is more important than most people consider in placing an event's distance from your observation point with any accuracy. It also gives you the chance to observe nearby events from the side or rear, which might present you with important contrasting appearances. You may well be the only person who does this crucial maneuver, so record what you see, before and after, with great care. Again, take note of the time when you move.

MARK POSITIONS ON SOLID SUBSTANCES - The pencil can make small marks on most materials. Chalk is also a good marker. Pipe cleaners, if you have any handy, can be

bent into loops to surround bits of evidence where they sit. Use care not to disturb anything, and also to avoid trampling any evidence that might be of value in some later investigation. If it's a potential "crime scene", leave the marking/collection of evidence to trained police and investigators, but it still doesn't hurt to mark a big pencil "X" on the sidewalk exactly where you were standing when you made your observation, and its relative direction from your position. If you can back up your reports with physically marked vantage points, your report's value will be magnified immensely, because investigators can then follow up with careful distance and angular measurements.



"That? No that's not a U.F.O. It's on the ground now. And you've identified it. That makes it an I.G.O."

Cartoon by Nick D. Kim, http://www.lab-initio.com
Used by permission.

PROVIDE ASSISTANCE, IF POSSIBLE - Once you've made good observations, you're in a position to determine whether you have the ability to offer assistance. Don't attempt first aid unless you have formal training, and NEVER move any injured persons unless their position is immediately life threatening. However, you may be able to provide the comfort of your presence to a victim, and to reassure them that authorities are coming, and not to try to move. Try to discourage others from moving or taking any evidence they find, within common sense limitations (i.e., don't try to stop a thug from looting the scene, or you may become a victim, too!) Note that this step comes along rather late in the process; rushing right in "to help" may seem heroic, but it's also rather ill-advised, because until you've really taken the time to carefully observe the situation, you may do more harm than good, and possibly even put yourself at risk needlessly.

MAKE DETAILED REPORTS - As the event's aftermath begins, there are likely to be investigators who will want to know about what you've seen and done. Here, the value of your observations as a critical thinker are probably the most valuable. Your notes, your recorded media, and your markings of positions and locations are quite probably going to be the most objective and useful statements investigators receive, because the average person simply isn't very good at remembering events, and often they begin to re-interpret whatever they think they saw with every passing heartbeat! Many people will withhold their reports "for fear of getting involved", but the only value your observations can possibly have (other than satisfying your personal curiosity) is through their being reported. If it so happens that you should be called upon later to repeat your statements and reports, those are your personal opportunities to ensure that your care and attention to detail are preserved, and that your contribution to knowledge about the event is accurately given (sadly, once it is given, none of us can control how it will be received... we only do what we can).

FOLLOW UP - There are times when even the best intentions of investigators leave things out. It isn't unreasonable to contact the investigators you have reported to, after a week or so, just to ask about the progress of the investigation. Sometimes, it will turn out that your report has been misplaced, or that investigators have been unable to reach you for follow up questions, so it's OK to check in with them. Same goes for professors, scientists, and reporters who you notified; very few people will object to ONE follow up call or e-mail (of course, repeated contacts can become burdensome, so be thoughtful as well). It doesn't much matter if the event was a local crime, a vehicle accident, a fire, a lost child crying in the park at night, or strange lights in the sky/at sea, odd looking creatures passing in your sight, or the first actual, real landing of space aliens at the intersection of 1st and Main Streets. If YOU observed it, if YOU took good notes and recordings of it, and if YOU reported it in good faith and with fair integrity, then YOUR testimony and/or evidence could very well be what makes the difference between understanding the event for what it truly was and dealing with it properly, or having it become a tragedy or farce. Being a critical thinker is not just an Intellectual Act, but a personal responsibility as well.

Paul Schlueter III *is serving Life in Prison in NE Pennsylvania. His supporters have recently created a website about him.* ***www.jaylbird.org***

Ω Ω Ω

Man-Eating Plants

By Don Nigroni

One could argue that there is no incontrovertible evidence for any paranormal phenomena simply because where there then such would no longer be considered paranormal. If Bigfoot were captured and examined by biologists then Bigfoot would be accepted by mainstream science, hence, Bigfoot would no longer be considered a cryptozoological creature. Likewise, were there overwhelming evidence for ESP, then, ESP would, albeit perhaps reluctantly, be accepted by orthodox science. Nonetheless, for those paranormal topics currently considered the standard fare, like Bigfoot and ESP, there really is no convincing evidence whatsoever.

One must take into account not only the quality of the evidence at hand but also the amount of evidence available and what confidence level that permits. Homicide detectives might consider someone a person of interest based on paltry evidence at first but as their investigation proceeds they might lose interest in that person. One could argue that there were some reasonable people who did not dismiss ESP, UFOs and Bigfoot in the early days before a large body of evidence became available. However, when rigorous testing couldn't find anyone who could consistently read a deck of Zener cards, when no alien spaceships ever landed and when Bigfoot hunters couldn't find a single dead or alive Bigfoot, then at some point all reasonable people felt confident that parapsychologists weren't detecting remote viewing abilities, alien spaceships weren't flying around our planet and Bigfoot wasn't roaming about the Pacific Northwest. Some disappointed believers might become skeptics while others go into denial or simply move on to other paranormal topics. Nonetheless, when the game clock ran out on man-eating plants, unlike what we've seen with ESP, UFOs and Bigfoot, adherents virtually vanished.

During the 18th and 19th centuries, there was a growing realization that some plants actually ate animals, mainly insects, culminating in Charles Darwin's 1875 book Insectivorous Plants. However, this creepy knowledge seems to have inspired some wild stories about plants that killed and ate much bigger game. Of course, some animals eat plants and some plants try to defend themselves against various animals with weapons like thorns and poisons. Also, some plants try to attract certain animals such as bees. However, the novelty that had caught people's fancy by the late 19th century was the idea that there were some plants that would actually try to attract certain animals in order to kill and then eat them. Originally animal-eating plants were called insectivorous because insects were their main prey, but by the mid-20th century they were commonly referred to as carnivorous since some of them can also kill and eat larger prey like frogs and small rodents. However, stories arose in the late 19th century of encounters at inaccessible places in distant lands with plants that could devour large animals like dogs and even people. If some plants could eat insects then through imaginative exaggeration others could consume humans.

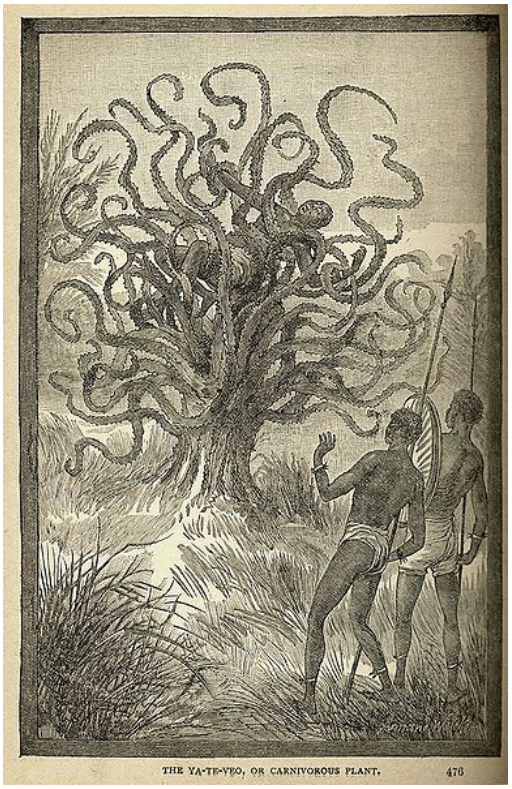


Illustration from Sea and Land (1887) by J. W. Buel. The Man Eating Tree of Madagascar

In Botany Leaflet 23 from Chicago's Field Museum of Natural History entitled Carnivorous Plants and "The Man-Eating Tree" (1939), Sophia Prior wrote first about some ordinary carnivorous plants like the common butterwort, a sundew, a bladderwort, the Venus flytrap and pitcher plants and then told about some allegedly extraordinary man-eating plants like a species from Nicaragua, the Snake-tree of Mexico, the Monkey-trap Tree from Brazil, the Man-eating Tree of Madagascar and a species in the Philippines.

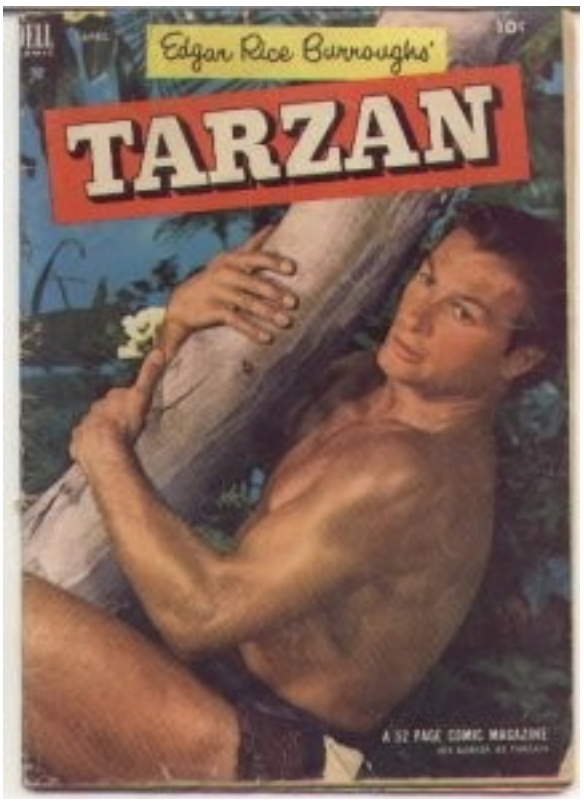
Prior warily observed:

> *Some of these tales, such as that of The Death Flower of El Banoor, are plainly intended to be fiction. Others challenge our incredulity by making serious claims of being true accounts of actual*

observations. Their authors are apt to grow irascible when approached for further information and it is to be noted that the scene is always laid in some indefinite place in a far-off country, difficult of access and uninviting to visitors.

Fifty years ago "the man-eating tree" was generally ascribed to Central America. Now, since that part of the world has become easily accessible and too well-known to serve as a hiding place, its habitat has shifted to more remote Madagascar or Mozambique.

According to Prior, Dr. Carle Liche allegedly saw the Man-eating Tree of Madagascar in 1878 and wrote about it in a letter to Dr. Omelius Fredlowski and that account then "appeared in numerous magazines, papers, and even scientific journals in various parts of the world, however, without sufficient verification to warrant a scientific investigation." She then included a "part of the account which appeared in the Carlsruhe Scientific Journal" as "was quoted in a newspaper story". Her stated source was an article by B. H. William which appeared in the September 26, 1920 issue of the American Weekly magazine, a Sunday newspaper supplement. An article entitled Sacrificed to a Man-Eating Plant appeared in The Ogden Standard-Examiner newspaper from Ogden City, Utah on that date "By Dr. B. H. William. The Distinguished American Botanist." But the supposed letter extract in that article was attributed to Dr. Karl Leche, not Dr. Carle Liche. Also that article gave the impression that Leche's expedition to Madagascar was recent, even though the alleged letter excerpt in the article stated that he had gone there to visit Queen Ravalana II, presumably Queen Ranavalona II who was queen of Madagascar from 1868 to 1883. Nonetheless, the passage reputedly from the letter that was used by Prior was the same as that which appeared in this newspaper. William contended that he was quoting "almost in full his narrative" as it appeared in the Carlsruhe Scientific Journal, "a publication of irreproachable conservatism and authority." Neither William in 1920 nor even Prior in 1939 would state that man-eating plants simply didn't exist, but Prior in her article was clearly much more skeptical about them than William was in his piece.



Tarzan and the Man-Eating Tree (1953)

52 Page Comic Magazine. Lex Barker is depicted as Tarzan on the cover.

According to the alleged letter extract, its author claimed to have witnessed a girl being sacrificed to a tree which had a trunk like a pineapple with a depression on top containing an intoxicating and soporific liquid. The palpi above and then the branches underneath them grabbed hold of the victim after she drank from the depression while enormous leaves with huge thorns rose up from below, embraced, impaled and crushed her.

A former governor of Michigan, Chase Salmon Osborn, wrote a book about his trip to Madagascar, including his unsuccessful search for this tree, entitled Madagascar, Land of the Man-Eating Tree (1924). Osborn included a purported reprint of an 1878 letter from Madagascar by Carle Liche to Dr. Omelius Fredlowski that basically told the same tale as the reputed excerpt from the letter used by William and then by Prior, only worded much differently. Osborn wrote, "This letter was published in several European scientific publications, was given popular circulation in Graefe and Walther's magazine, of Karlsruhe, and was first published in America by the New York World in 1880."

In his 1955 book Salamanders and Other Wonders, Willy Ley wrote about his attempt to find the original published source of this alleged letter. After an extensive search, he came to doubt that there ever was a Carlsruhe Scientific Journal or even a Liche or Fredlowski for that matter, but he did finally come across the tale mentioned in a work by Swiss naturalist Dr. Conrad Keller entitled Reisebilder aus Ostafrika und Madagaskar (Travel Sketches from East Africa and Madagascar) published in 1887. According to Ley, Keller had been to the island in 1881-82 and again in 1886 and wrote of an alleged letter by Carl, not Carle, Liche to Dr. Fredlowski that had been published in a Karlsruhe journal. Because he couldn't find the original published source in German, Keller had to rely on what was called the Antanarivo Annual and Madagascar Magazine for the Year 1881, a small missionary magazine. However, The Antananarivo Annual and Madagascar Magazine (1881) was surely meant. That issue did contain what was claimed to be "an extract from the South Australian Register" which had supposedly reprinted an item at the request of a Dr. R. G. Jay who had purportedly read this piece at the Willungo Institute. The South Australian Register article supposedly claimed to

have "copied from the New York World" what was "said to have been originally published in Graefe and Walther's Magazine, of Carlsruhe". The item in question was an alleged extract of a letter from Carle Liche to Dr. Omelius Fredlowski. Ley concluded that Keller's condensed translation showed that the version used by Osborn had been taken from this magazine and "that the magazine's version is, in all probability, the original." In fact, Osborn's version does match this magazine's version. Ley also felt that the whole thing may have started out as a joke and simply got out of hand. He credited Osborn's book with having resurrected the story.

Spatulate leaved sundew

In The Beasts That Hide From Man (2003), Karl P.N. Shuker stated, "Canadian researcher W. Ritchie Benedict revealed in 1995 that he had uncovered a published but hitherto-unpublicized newspaper account (The Watchman, New Brunswick, May 29, 1995) regarding this cryptobotanical wonder dating back to 1875 (hence predating the Liche letter by three years), and which indicates an origin for it not in Madagascar but in New Guinea!" Intriguingly, Osborn had mentioned in his book that the alleged Liche letter had also appeared in the South Australian Register and that a Dr. R. G. Jay of Willungo, Australia "read this account at a soiree at the Willungo Institute." Willunga, Australia was probably meant. I was able to locate a condensed version of the reputed letter that Osborn had used in an article attributed to a "Dr. Jay, in South Australian Register" entitled The Man-Eating Tree of Madagascar in the Steubenville Daily Herald & News from Steubenville, Ohio which had appeared as early as July 14, 1875. And I'm revealing here in Phactum that I've uncovered an even earlier published account of this story. An article in the May 30, 1874 issue of The Stevens Point Journal from Stevens Point, Wisconsin entitled A Man-Eating Tree had a purported extract from a letter by Karl Leche. This alleged letter excerpt basically told the same tale as that found in the articles by William in 1920 and Prior in 1939, however, it used the version that subsequently appeared in Osborn's 1924 book although the reputed letter in that book contained two extra sentences at its beginning and was missing some sentences and the final two paragraphs of the alleged selection from the letter which appeared in this 1874 newspaper article. The alleged letter extract in The Stevens Point Journal was reportedly taken from the New York World and that was "said to have been condensed from a Carlsruhe magazine", perhaps referring to the Carlsruhe Scientific Journal or some other publication, presumably from Karlsruhe, Germany or Carlsruhe, Australia, but made no mention of a Queen Ravalana II or Queen Ranavalona II. Needless to say, the letter could not have been written in 1878 when we already have a printed report of it by 1874. Also, the search for the original published source of the alleged letter must evidentially continue.

In Sea and Land (1887), J. W. Buel told about a supposedly man-eating plant found in central Africa and South America known as the Ya-te-veo. These trees have short trunks from which protrude long spines with barbed edges that can lay draped on the ground forming a circle. Were a man to walk or rest on the spines, they could grab hold of and lift up the victim who would then be impaled, crushed and have all of his blood drained from his body, whereupon his dry remains would be expelled and the trap reset.

Northern Pitcher Plant

The tale of Leroy Dunstan, a naturalist from New Orleans who purportedly saw the Devil's Snare of Nicaragua in the late 1880s, is a story that, like the Madagascar tree, has also been widely reported. The earliest account that I came across was The Blood-Sucking Plant in the December 14, 1889 issue of The Pittsburgh Post. That article related that Dunstan had recently returned from an expedition to Nicaragua and had told of a strange plant which above-ground seemed to be composed entirely of vine-like branches with tiny suckers which could lie prone upon the ground. However, upon contact, they would grab hold of the victim and then suck the blood from the unfortunate prey. It was alleged that Dunstan's dog was caught by one of these plants and that he had a difficult time cutting the terrified canine free from the vine-like branches which exuded a strongly adhesive substance. Also, an article entitled A Cannibal Plant in the January 2, 1892 issue of Littell's Living Age taken from The Spectator contended that:

The digging of the Nicaragua Canal will bring plenty of Americans and Englishmen into the very

country where the "vampire vine" is said to exist, and the question whether the whole thing is or is not a hoax may very soon be tested.

Horned Bladderwort

Prior realized that as the unexplored regions of the world grew smaller and smaller and the means of transportation became more and more advanced, it would became increasing more difficult for cryptobotanists to claim that these man-eating plants existed somewhere. She referred to "the sensational and pseudoscientific" features common to those reports. Bigfoot could hide from cryptozoologists and might be nocturnal. However, these man-eating trees were rooted to the ground, hence, would be there day and night for all to see whenever those who survived their encounters with them returned with others to show them the incontrovertible physical evidence. Some carnivorous plants can in fact move about such as some badderworts which can float upon water and, depending on wind and current, may travel far distances. But those who reported encountering man-eating trees in the late 19th century apparently staked their credibility on people not locating their trees, not on their trees re-locating. Had ufology bet everything on their spaceships coming from Venus or Mars then that subject would have already gone the way of alchemy, such being the danger faced by theories open to reasonably plausible falsification.

Nonetheless, man-eating plants became popular TV and movie stars in 1960s in shows like The Little Shop of Horrors (1960), The Day of the Triffids (1962), an episode from the popular early 60s cartoon series The Bullwinkle Show entitled the Pottsylvania Creeper and a 1965 episode of The Avengers called the Man-Eater of Surrey Green. It should, however, be noted that most of these species came from places that were still very remote and inaccessible in the 60s like outer space and Pottsylvania. Closer to home, we are fortunate to have a rich variety of carnivorous plants like bladderworts, sundews and pitcher plants scattered throughout the New Jersey Pine Barrens. An excellent place to view them is from the hard-to-find boardwalk over Webb's Mill Bog in the Greenwood Forest Wildlife Management Area (WMA). If traveling on Route 72 east then turn north onto Route 539, go 6.2 miles and there will be a large WMA sign on your left and a narrow opening to your right which is the beginning of the trail that goes to the boardwalk. It's a short walk but you'll brush up against foliage so you should consider spraying yourself for tick protection and the ground might become mucky as you near the boardwalk. And stay on the boardwalk, otherwise, people might never know that you merely sank into a bog and instead think that you might have been eaten by a carnivorous plant!

Don Nigroni received a BS in economics in 1971 from Saint Joseph's University and a MA in philosophy from Notre Dame in 1973. He retired in 2007 after working 32 years as an economist for the US Bureau of Labor Statistics. He now spends much more time hiking, mountain biking, kayaking and bird watching.

Ω Ω Ω

LORD KELVIN ON RELIGION AND SCIENCE.
TO THE EDITOR OF THE TIMES.

Sir,—In your report of a few words which I said in proposing a vote of thanks to Professor Henslow for his lecture "On Present Day Rationalism" yesterday evening, in University College, I find the following:—"Was there anything so absurd as to believe that a number of atoms by falling together of their own accord could make a crystal, a sprig of moss, a microbe, a living animal?" I wish to delete "a crystal," though no doubt your report of what I said is correct. Exceedingly narrow limits of time prevented me from endeavouring to explain how different is the structure of a crystal from that of any portion, large or small, of an animal or plant, or the cellular formation of which the bodies of animals and plants are made; but I desired to point out that, while "fortuitous concourse of atoms" is not an inappropriate description of the formation of a crystal, it is utterly absurd in respect to the coming into existence, or the growth, or the continuation of the molecular combinations presented in the bodies of living things. Here scientific thought is compelled to accept the idea of Creative Power. Forty years ago I asked Liebig, walking somewhere in the country, if he believed that the grass and flowers which we saw around us grew by mere chemical forces. He answered, "No, no more than I could believe that a book of botany describing them could grow by mere chemical forces."

Every action of human free will is a miracle to physical and chemical and mathematical science.

Yours faithfully,

KELVIN.

15, Eaton-place, London, S.W., May 2. (1903)

I support the aims of PhACT and would like to join/rejoin for the next year. The annual membership is $15 and $10 for students which includes e-mail delivery of Phactum.
If you wish **US Mail delivery annual membership is $25.** Checks should be payable to **PhACT**.

Membership dues of $_____enclosed to pay for _____ years of membership.

Donation of $_____ enclosed for additional support
Donation of $_____ dedicated for High School Science Fair prizes

Mail checks to:
PhACT
639 W. Ellet Street
Philadelphia, PA 19119

Name:_____

Address:_____

_____

Phone: _____ E_mail _____

The Philadelphia Association for Critical Thinking is grateful for the hospitality extended by Community College of Philadelphia and especially Dr. David Cattell, Chair of the Physics Department, for hosting PhACT and giving us access to such excellent facilities. Part of CCP's mission is to serve Philadelphia as a premiere learning institution and PhACT is pleased to support this goal by having talks on wide ranging, engaging, and educational topics.

PhACT's High School
Science Fair 2010 Prize Fund.

1 contribution in September - $10.00
Total collected so far: $60.00 / Goal = $300.00

Please donate. Small contributions are preferred and donations in excess of the 2010 goal will be applied to the 2011 Prize Fund or some other youth science education project not yet determined.

ALL money collected for this project will be used for student prizes. PhACT members and others are invited to participate as judges. Contact Eric Krieg for more information: erickrieg@verizon.net

Phactum is, in theory, distributed 6 times a year and is the main propaganda organ for the Philadelphia Association for Critical Thinking.

If you are not a supporting member/subscriber we invite you to become one. $15 for a one year membership to PhACT with email Phactum subscription. $25 for US Mail subscription. $10 for students, email only. Donations are welcome.

Send letters of rebuttal, ideas, short essays, poetry, opinion pieces, complaints, and lavish praise to Ray Haupt, Phactum editor, at **phactpublicity@aol.com.**

Policy For Article Use

Except where otherwise noted all materials originating in Phactum may be reprinted by groups recognized in CSI's international network of skeptics organizations as published in Skeptical Inquirer. The author and Philadelphia Association for Critical Thinking must be credited. All other publications must obtain permission from PhACT before using any item.

Permission to use articles and illustrations originating from other sources must be granted by the original publisher.

Contact the editor, Ray Haupt: **phactpublicity@aol.com**

The PhACT Council 2009

Eric Krieg, President, Bob Glickman, Secretary
Wes Powers, Webmaster, Ray Haupt, Treasurer
Mike Caro , Dr. David Cattell
Dr. David Cragin, Tom Napier
Harry Rothwell, Becky Strickland

The PhACT website is: **www.phact.org**