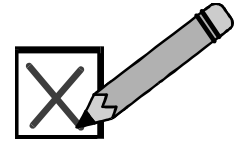


Reality Check



November-December 2002



From the President's desk

By Dave Buck

EXTRA! EXTRA! Superstitions removed from UT campus.

Thanks to the Superstition Bash on Friday the 13th of September, college students successfully put their superstitious beliefs to the test. No bouts of bad luck or catastrophe have been reported by UT students as a result of the Bash. Consequently, students once believing they were doomed to seven years of bad luck if they broke a mirror or spilled salt now live without such fear. Homeopathic medicines have been discarded for empirically-based treatments. Praying to a higher power for health, well-being, higher test scores, and to be saved from eternal damnation has ceased.

Oops. I went to far didn't I? But, I bet the little event at the UT center got some people thinking.

A new organization is to be thanked for the thought-provoking bash: Campus Crusade for Reason. This group has been launched thanks to a joint effort be-

tween some RET members and UT students. The Superstition Bash was their way of introducing themselves to other students, perhaps picking up some members, and just having a good time.

Campus Crusade for Reason should fill a void here in Knoxville. One of its goals is to "provide a forum for students to express and develop their own beliefs in a receptive environment". We'll soon find out how they do. For their second event, CCR sponsored a showing of the movie *Life of Brian* (a hilarious Monty Python Classic about a guy mistaken as the Messiah).

So for those interested, check out www.campusreason.org. It's a small website now, but I suggest bookmarking it and watching it grow. It will list upcoming events as well as contact information for those who may wish to join.

-RC

Back to the basics: How do we know it ain't true?

By Massimo Pigliucci



Question: How do we know that X is not true (where X can be anything, from the existence of god to haunted houses)?

This question is often asked to skeptics by believers in all sorts of pseudoscience. It is meant as a definitive rebuttal of the skeptic's position: see, you *can't* know for sure that X doesn't exist, therefore...

The real question, of course, is not how we can prove a negative (which is difficult, though not impossible, as it is often believed), but rather it concerns what sort of positive evidence is there *in favor* of some particular claim.

For example, if someone is about to buy a house, would that person proceed with the pur-

chase just on the basis of the fact that the owner says that it hasn't been proven that there is anything wrong with the house? What if nobody has checked? Wouldn't it be better to make the effort to collect positive evidence in favor of the claim (in this case, "there is nothing wrong with the house") before putting money into the owner's bank account?

Similarly, just because there is no positive evidence of the inexistence of something, that doesn't get the believer off the hook: it may be that "absence of evidence is not evidence of absence," but it is also true that what we really want is *positive* evidence supporting the claim purported to be true. Too many things are merely possible. How do we know which ones are *really* true?

-RC



Rationally Speaking: On Intuition

By Massimo Pigliucci

Dmitri Mendeleev is resented by high school students, and lauded among scientists for having come up with the idea that the natural elements can be arranged neatly and logically in a regular fashion, based on simple properties such as their atomic number. Mendeleev's Periodic Table is one of the best examples of synthesis in science, an idea that brought about the ability to make predictions about the discovery of new elements. What is less known is that Mendeleev had the idea in a dream—not while he was sitting at his desk thinking about the order of the universe. There are other examples of scientific discoveries made, not through the stereotypical behaviors we associate with scientists, but during dreams, walks in the park, or sudden episodes of seeing a solution that wasn't there until a moment earlier.

The role of intuition in scientific discovery has been much maligned in favor of the importance of rationality in everyday life and human relationships. Worse, the two (intuition and rationality) have often been considered as opposites, as defining different types of mental activity, and even different kinds of people. Just think of *Star Trek's* Mr. Spock: the quintessential rational entity, yet completely incapable of both emotions and intuitions.

It turns out that research on what actually constitutes intuition is rapidly demolishing some old prejudices (see S. Dehaene, et al., in *Science*, 7 May 1997) and, in the process, forcing us to think of human beings again as creatures that have to have both intuition (and emotion) and rationality in order to function properly—so much for Mr. Spock.

First, we need to look at what one might possibly mean by "intuition." The most common interpretations of the word include the immediate understanding of something that is not obvious ("intuitive"), a hunch ("I've got this intuition"), the whole as seen by the mind at once ("an intuitive understanding of the problem"), or some kind of natural knowing independent of logical reason ("I just know it, period"). If we exclude the first, rather uninteresting, meaning, all the others have something in common, in that they refer to somehow seeing something before (or even despite) rational deliberation.

Neurobiological research on patients with damaged brains, or using functional magnetic resonance imaging of our thinking organ, show that certain areas of the brain seem to be particularly involved with intuitive thinking. Interestingly, the same areas are associated with emotions, since patients affected by damage in those areas not only lose the ability to intuit, but also suffer severe loss of emotional capabilities. This, of course, goes a long way toward explaining why popular culture

has forged a link between emotions and intuition.

Where popular culture is wrong is in contrasting intuition and rationality. Research on the topic is helping to draw a picture of intuition as a bridge between subconsciously processed information and the action of conscious thought (see G. Vogel, in *Science*, 28 February 1998). Intuition brings the results of subconscious processing to the attention of conscious (and therefore rational) thought. Rather than being opposed to each other, intuition and rationality are strictly interdependent.

Not only does intuition provide the fuel for rational deliberation, but the relationship goes the other way too. One can think of rationality, when well used, as a sort of filter to discern good from bad intuitions: just because we have an intuition, it doesn't mean that we are right. What it *does* mean is that we have something on which to focus our conscious attention. It is rational thought, through a slower but more methodical analysis of the evidence, that helps us decide if our subconscious was right in the first place. It is therefore equally imbalanced to be mostly "intuitive" (i.e., ignoring that one's first impression can be wrong), or too rational (i.e., ignoring one's hunches as surely misguided).

Interestingly, and again contrary to popular conception, intuition is not a generic ability, i.e., there is no

such thing as intuitive or non-intuitive people across the board. Rather, one's intuitions tend to be more accurate the more one has accumulated expertise in a particular field. A chess master's intuition at chess is better than a novice's, but the master does not have the intuition about car problems that an experienced mechanic has, and vice versa.

This means that it is possible to *improve* one's intuition by working in the same field for years, accumulating so much experience that our brain eventually tends to transfer part of the processing to the subconscious: we suddenly seem to "know" the answer, almost before we can formulate the question. This also has important and often neglected applications. Consider, for example, the common business practice of moving people "vertically" within a company as soon as they have demonstrated ability at a particular job. What the company is doing is literally to reset the knowledge base and hence intuitive abilities of the employee with every move, with the result that one is kept in a semi-permanent state of incompetence. That can't be good for business. Think about it, the next time you are promoted, or give a promotion.

"Popular culture is wrong in contrasting intuition and rationality."

The PITS: down in the damp in Tennessee

By Ron Castle

On May 14 I was as depressed as I have ever been, tired and jet lagged from a 16-hour return flight from Italy after a much needed two week vacation. Party's over. Back to the old grind. Nashville traffic was jammed up as usual for the afternoon commute, which gave me time to observe the transitory impermanence of the sprawl that has engulfed Davidson and Rutherford Counties since I moved to Tennessee in 1981.

Nashville in 1981 was a lot like the Dallas I knew as a kid in the late 50's and early 60's. Nashville today is turning into another Dallas-Ft. Worth, which is a good thing if you like automobiles, freeways, shopping malls, fantasy theme suburban subdivisions and air pollution. It is a bad thing if you like neighborhoods, sidewalks, local merchants, family run restaurants and farms on the edge of town.

The PITS, Post Italy Travelers' Syndrome, has infected me, and James Howard Kunstler's book, "Home From Nowhere" is inflaming my infection. Kunstler says we are a clown civilization, sustained on a clown diet rich in fat and sugar that makes us fat like clowns. We dress like clowns, moving about a landscape filled with cartoon buildings in clownmobiles, absorbed in clownish activities, watching other clowns on the boob tube. With Tuscany and Umbria now behind my eyes and the renewed vision of my Tennessee home passing by the windshield, I see his point. As playwright Samuel Beckett once observed: "Nothing is funnier than unhappiness." I guess I must be a really funny guy.

In Italy we spent a week in the mountains that divide Tuscany and Umbria near the very small valley town of San Leo Bastia in a 400-year old farmhouse with solid stone walls 3 feet thick. We were surrounded by small farms with small fields of wheat and corn and vegetables, olive groves and vineyards, ringed by heavily wooded mountains that look much like the hills of our home on the Cumberland Plateau. But there is a totally different feel about this place, which I have coalesced into the thought that it is obvious everywhere how much Italians love their land, their old stone houses, their culture, their history, their hilltop cities and towns. The land is the base for a culture founded on local agriculture. And fresh, tasty food simply prepared is the reward.

In our very own kitchen we cooked breakfast and dinner every day from locally grown fresh ingredients that tasted like real food. We drank the regional wines that cost 2 or 3 or 4 dollars a bottle and savored the local olive oils that cost more than wine. They don't have cardboard tomatoes and iceberg lettuce. They don't have Big Macs and curly fries. And they don't haul food an average of 1,500 miles to the grocery store the way we do. They do have fava beans and artichokes and spinach and piopino mushrooms, the best I have ever

tasted.

The love for the land is evident by the laws Italians have adopted to preserve local agriculture and forestry. The valleys in Umbria that fall toward the Tiber River are in an Agricultural Protection Zone and the forests are regulated by the Forest Police. You want to buy a farm? No problem. You want to make a subdivision out of it? No can do. If there is an old foundation on the property you can build a house no larger than the old foundation. If you own forestland the Forest Police will help you to determine what can be cut. Ditto if you want to cut a tree on your farm. Land speculation for development, one of the current mainstays of the Middle Tennessee economy, is virtually unknown. The land rush in Italy ended about a thousand years ago.

One of the reasons agriculture is so important to Italians is that in Italy there are 826 persons per square mile of cultivated land, while in the United States there are only 208. We will be in the same position should the U. S. population increase to 550 million, which we might do if we don't decrease our annual birthrate of 1.24%, the highest among developed nations (even higher than China's!), control immigration and protect local farms from suburban cannibalization and mindless sprawl. Italy protects its farmland to protect food self-sufficiency, valuable exports and an agrarian lifestyle that is a keystone of their culture. Every home has a garden, even in the city if possible.

The towns and cities we visited in Tuscany and Umbria included Cortona, made famous in America by author Frances Mayes' books "Under The Tuscan Sun" and "Bella Tuscany" and now overrun with American tourists, Montepulciano, Arrezzo, Angahari, Sansepolcro, Citta di Castello, Umbertide, Orvieto and amazing Gubbio, founded in the 5th century A. D. The historic centers of each of these towns are ringed by massive stone walls and the buildings are constructed from materials that have lasted for hundreds, even thousands of years: hand laid limestone, sandstone or basalt with clay tile roofs, copper gutters and downspouts. Italy is build to last. Interior renovation is common and we saw a lot of reconstruction. Razing old buildings to build new ones hardly ever happens.

Streets are stone and cobblestone, narrow and winding and often very steep in hilltop towns. Sidewalks are few. The streets are the sidewalks, shared by cars and people alike, often in very close proximity. Small cars are the norm because of the cost of fuel, about \$3 a gallon, because of the narrow streets and narrow highways, and because of the moderate incomes of most Italians. We watched with amused horror as a gentleman in a new BMW 700 series scraped the side of his larger than average car while negotiating a tight turn at

a narrow intersection. A Chevy Suburban or Ford Expedition would be as useless as trying to pass the proverbial camel through the eye of a needle.

The inner portions of the cities are "limited traffic zones" and if you have no reason to be there on wheels you park your car in a parking area outside of town and walk. If you live in town and work in town you don't need a car. Everything is within walking distance and walking is a national pastime in Italy. In Orvieto, we joined the Sunday afternoon promenade where everyone in town was on the streets, strolling arm in arm with family and friends, stopping for hellos and conversations and an espresso or gelata. I muse about the fact that many folks in the U. S. choose a shopping mall to get their daily walking exercise in a place lined with small shops in the company of other people. In the towns of Italy all people have to do is walk out their door to do the very same thing.

Back in good old Tennessee, finally zipping down I-24 past the Hickory Hollow Mall exit, I see more SUV's in 2 minutes than I would see in 2 months in Italy. I am struggling to define our culture and our sense of place.

My conclusion is that the keystone of our culture is the automobile. We are what we drive. Our place is the highway. Since World War II we have hopped in our cars and abandoned Main Street USA. We favor strip malls and franchise restaurants with drive thru windows, suburban McMansions with monoculture lawns and 4 by 4 SUV's, a survival necessity for less frequent snowstorms thanks to global warming. We want imported oil and are willing to spend billions of dollars a year on military excursions to make sure we get it. We will not join with the European Union, who ratified the Kyoto Treaty on May 30th at the United Nations in New York, to help reduce greenhouse gas emissions. We are perfect just the way we are and we don't want to change. We hold ourselves up as the model culture for the rest of the world. We are wealthy. If 'they' were as smart and hard working as we are they would be, too. As President Bush said in a speech last summer, "The American way of life is blessed."

Lester Brown of the Earth Policy Institute points out in his book "Eco-Economy" that perhaps what we don't realize is when all of the people in China have an American style car in their garage, just like we do, they will need 80 billion barrels of oil a day, more than the world currently produces. If paper consumption per person in China reaches U. S. levels, they would need more paper than the world produces. Poof, there go the world's forests. If our fossil fuel based, automobile centered,

throwaway economic model will not work for China, it will not work for the other 3 billion people in the developing world. It will not work for the rest of the world. Eventually, it will not work for us.

A question that begs to be asked is, if the more studious among us know of these things, why do our political and media leaders fail to educate themselves and us on these issues? Ask our 4 gubernatorial candidates to define environmental sustainability and see what kind of answer you get. Or, better yet, ask President Bush and Vice President Cheney. I am thinking about the title for a new book: "Involuntary Simplicity – The Void In Environmental Leadership in America." What do you think?

Italy, like all other places in the world, has its own problems. Italy is not a perfect place. But there is an essential ingredient in Italy that is largely missing here in Tennessee. I think it is a love of place and a general sense of sustainability. Italians have proof going back at least 3,000 years that they and the land can survive together, with or without fossil fuels. Meanwhile, here in the USA, we are emitting 25 percent of the world's

greenhouse gas emissions while conquering the wilderness in TV ads for monster trucks and sport utility gas hogs. In Tennessee we are gobbling up 80,000 acres of farms and open space a year for development while ranking 9th in the nation in toxic substance releases, emitting 162 million pounds of toxins on to our land and in the water and air according to the just published EPA 2000 Toxic Release Inventory. Adding a penny to the gasoline tax is too high a price to pay to have a dedicated source of funding to keep our parks from closing and to preserve wilds land and open space. Technology will probably allow us to survive the transition from a fossil fuel based to a renewable energy based economy. We will follow this path whether we want to or not. Its just a matter of time. The longer we wait the

harder it will be. I hate to think of all of us doing mid-night cramming when the test is survival.

Technology will not by itself help us learn to be happy with what we must become if we are to live in an environmentally sustainable world. We will have to work that out ourselves it appears. Considering where we are at the moment and how far we must go to get to where we need to be, I am wondering if it wouldn't be easier for this old dog to learn to speak Italian? The pits in Italy are mainly in the olives.

About the author: Ron Castle is a freelance writer and web programmer. He lives near Sewanee, Tennessee.



Commentary on Human Nature

By Anna Ham



Editor's note: last issue of Reality Check was dedicated to a series of essays on human nature, the result of a recent book discussion of the Rationalists of East Tennessee. We invited our readers to comment on the essays and the general theme. Below is one of the letters we received.

Before expressing my views on human nature, I must mention a point on which I probably disagree with almost everyone else. It is that I do not consider the incredibly heroic acts of a relatively few individuals on September 11 and the days and weeks following as being illustrative of human nature in general, though it has been expressed many times in the media as being just that. What the acts show, to me anyway, is what some humans are capable of under extraordinary circumstances.

I take a much more mundane view of human nature. To me, it is what I see in my everyday contacts with humans and what I have observed over many years of living among and working with them. As a result, I am convinced that the basic, most fundamental characteristic of human nature is cruelty. Being the creature on the highest rung of evolution's ladder, man has, by far, the most fully developed brain. And for what does he use it? To kill, destroy and devastate everything with which he

comes in contact. I would challenge anyone to point out one place on earth that is better for man's being or having been there.

On a personal note, human nature has made a misanthrope out of me. I do, though, entertain the hope that another million or so years will bring forth a new and improved species of the genus homo. David Hume expressed it very aptly. "We must therefore glean up our experiments in this science" (of man) "from a cautious observation of human life, and take them as they appear in the common course of the world, by men's behavior in company, in affairs and in their pleasures. Where experiments of this kind are judiciously collected and compared, we may hope to establish on them a science which will not be inferior in certainty and will be much superior in utility to any other of human comprehension."

My comments probably will be in contrast to much more erudite opinions, but they will bring the subject of human nature down to earth, where I am.

Anna Ham, Louisville

-RC



Philosopher's Corner: John Dewey

By Fred Venditti

I shall endeavor to provide for discussion an accurate summary of Dewey's views, as expressed in *A Common Faith*.

Dewey strives therein to do three basic things:

- (1) to point out the differences in meaning between religion, in its historic and formalized sense, and religious experience;
- (2) to present a new basis of faith, productive of religious experience which is divorced from historic religions with their supernatural connotations; and
- (3) to demonstrate the superiority of the proposed new basis of faith over the old.

In proposing his new basis for a religious faith, Dewey also counters the objections of others who also oppose faith in the context of typical supernatural religions. Bertrand Russell, for example, has said:

"Christians hold that their faith does good, but other faiths do harm. At any rate, they hold this about the Communist faith. What I wish to maintain is that all faiths do harm. We may define 'faith' as a firm belief in something for which there is no evidence.

When there is evidence, no one speaks of faith. We do not speak of faith that two and two are four or that the earth is

round. We only speak of faith when we wish to substitute emotion for evidence."

To such assertions as these Dewey replies in essence, "I too reject the supernaturalistic view of the universe and of man which cannot be supported by fact. I affirm that what we know is a natural universe of which man is a part. I advocate faith in human intelligence which, in interaction with other real forces in the universe, has the power to promote good that may be known and evaluated pragmatically.

Furthermore, I contend that man, by applying his intelligence to the pursuit of his ideals (that which he perceives to be good), may know experience which is truly religious. Finally, because my proposed faith has human welfare as determined by human experience as its cornerstone, it will focus men's attention on harmonizing their efforts rather than leading them into disputes generated by faith in various supernaturally revealed and infallible creeds."

The extent to which Dewey succeeded is, of course, still a matter for heated discussion among atheists and theists alike.

-RC



Announcements and Upcoming Events



Upcoming Events

Skeptic Book Club: On Sunday, November 17, at Borders' Books in West Town. "The Power of Babel: a Natural History of Language," by J.H. McWorther. Discussion facilitated by Melissa Brenneman and Shari Clough. Contact Massimo Pigliucci at pigliucci@utk.edu.

Philosophy Discussions: On Sunday, November 10, in the Board room of the Candy factory, "Conspiracy theories about 9/11." For more information call 692-6669 or contact Dave Buck at dbuck@visumllc.com.

Roundtable: On Sunday, December 1, in the Board room of the Candy Factory, "Dealing with religious relatives during the holidays," conducted by Aleta Ledendecker. Call 982-8687, or email aletaledendecker@earthlink.com.

Skeptic Book Club: On Sunday, December 8, at Borders' Books in West Town. "The Vanquished Gods: Science, Religion, and the Nature of Belief," by R.H. Schlagel. For information, contact Massimo Pigliucci at pigliucci@utk.edu.

Announcements

Rotating Dinners. New diners are welcome, since the greater the numbers of participants, the more interesting the mix will be.

Please contact Aleta Ledendecker at (423) 982-8687 or aletaledendecker@earthlink.net, if you would like to join.

Call now if you are not already a registered diner and want to get in on the action for the next round.

Highway cleanups.

If you are interested in helping out with RET's regular highway cleanups to show that secular humanists care about the environment, contact Phil King at philip.king@comcast.net

We're on the Web!
At www.rationalists.org

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