10 BLIND SPOTS OF SCIENCE



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INTRODUCTION

Something radical happened to me when I was 16 years old at Argo High School. My science teacher, Ms. Moon began to talk about human evolution, telling us that we are all animals that come from this same Universal Common Ancestor by chance.

These words transformed my life. She was saying in so many words how we human beings, like other forms of life, have developed from aboriginal unicellular life by way of such mechanisms as natural selection and genetic drift working on sources of genetic variation. Natural selection discards most of these mutations, she argued, because they prove deleterious to the organism in which they appear, but some turn out to have survival value and to enhance fitness; they spread through the population and persist. It is from these mechanisms, or mechanisms very much like them, that all the vast variety of contemporary organic life has developed; we are all animals that come from this same Universal Common Ancestor by chance.

"We are all animals....animals by chance"... I heard nothing else she said. "Animals! I am an animal! And I am here by chance." I could not get my teenage mind around these words. How could I be just another animal like the rat, termite and dog! How could all of life itself come from purposeless matter? So I approached her and

questioned her. She then gave me a project on Charles Darwin, who I never read before that day.

I found out after reading Darwin that she was partially right, we are all animals. But years later I learned that I was right all along, in another sense. We are not only animals. We are sacred and special. And it is impossible for us or all of life to come by mere undirected processes alone.

Note that this ebook is NOT an attack on science!! I love science and would not even be here without the advances of science. Science is one of the most exciting and interesting areas to study!! Scientists and engineers have given us, the

Light bulb

Telephone

Printing Press

Personal automobile

Camera Television

Airplane, Personal Computer

The internet and of course, The iphone

In the beginning of the 20th century, life expectancy was less than 40 years of age.

Today the world average stands at around 70. The main reason for this leap in

longevity has been our ability to cure diseases. Vaccines, antibiotics and advances in medical technology all because of science. So you have a lot to be thankful for because of science. But wait, you cannot be thankful unless you have someone to thank!

GK Chesterton wrote in his book Orthodoxy that "If my children wake up on Christmas morning and have someone to thank for putting candy in their stocking, have I no one to thank for putting two feet in mine? -"

What is science?

So what is science? This is not easy to answer! I found in my career that the easy things to answer (like what is love or justice) become more difficult, but the hard things become easy with time (square root of 750, 000 or the distance between cities or even planets)

According to the *American Heritage Science Dictionary:*

[Science is] The investigation of natural phenomena through observation, theoretical explanation, and experimentation, or the knowledge produced by such investigation.²

Science then is a study of the natural world. This includes the components of the physical universe around us like atoms, plants, ecosystems, people, societies and galaxies, as well as the natural forces at work on those things.

Note that all scientific knowledge is tentative and provisional, and nothing is final. There is no such thing as final proven knowledge in science. The currently accepted theory of a phenomenon is simply the best explanation for it among all available alternatives. Its status as the accepted theory is contingent on what other theories are available and might suddenly change tomorrow if there appears a better theory or new evidence that might challenge the accepted theory. No knowledge or theory (which embodies scientific knowledge) is final.

Thus, the scientific method is the best method for seeking natural truths of the physical world.

Is there a dichotomy between science and religion?

Contrary to popular notions, there is no dichotomy between science and Religion and in particular the Bible, contrary to popular opinion.. ... This Warfare thesis between Science and Religion, especially the Christian religion is a myth of gigantic proportions. No one deserves more blame for this stubborn myth than Andrew Dickson White (1832-1918), the founding president of Cornell University, and John William Draper (1811-1882), from the University of New York.

Did you know that modern's science's driving force has been Christianity for hundreds of years, virtually its only significant contributor? Great men like Copernicus, Kepler, Galileo, Pascal, Descartes, Newton, Kelvin, Mendel, Boyle — all were Christians.

I strongly recommend this video lecture from Chris Oldfield on science and religion: http://upload.sms.csx.cam.ac.uk/media/2217212

Now modern research seems to tell a different story about the beliefs of scientists. Pew Research Center cites that eight-in-ten Americans (83%) say they believe in God and 12% believe in a universal spirit or higher power. But the poll of scientists finds that four-in-ten scientists (41%) say they do *not* believe in God or a higher power, while the poll of the public finds that only 4% of Americans share this view.

Thus, scientists in general have lesser belief in God than do the general population.

It is easy for our skeptical friends to conclude that it is science itself that makes these people disbelieve? Not so fast!!

A more detailed study of these people finds that that people who are more skeptical of God tend to go into the field of science rather than other fields in the first place.

According to the *Higher Education Research Institute at the University of California:*

"Students tend to become more religiously skeptical during college if they engage in a good deal of partying, watch a lot of television, participate in a study abroad program, or if their parents go through a separation or divorce. Religious skepticism also tends to increase if the student attends a college where the student body is highly liberal politically."

So students' degree of Religious Skepticism is most likely to decline if they pray frequently, attend religious services frequently, or join a campus religious organization.

It is a myth that science creates unbelief, rather it is unbelief that leads

many into science.

Charles Darwin did not lose his faith because he did more science! No. Read his biographies, he lost his faith because he lost his daughter Annie, she died at the tender age of ten in 1851.

See *Darwin, His Daughter, and Human Evolution* by <u>Randal Keyne</u> (2002) for evidence of this.

We need to provide the deep theological foundations for people that when suffering does happen so that they do not lose their faith. But more importantly, we need to have the moral courage to face the facts, that some of our dogmas may not be true. And we can never know that if we don't read the other side and examine the evidence for our faith. I recommend this link for more details on this: http://www.logicallyfaithful.com/faith-reason-t/

This is why the need for apologetics is so important. If you are going to be spiritual, then you should be able to defend your faith against the strongest attacks of skeptics.

The problem is not science, but **naturalism** or materialism in science. It has held many hostages in its ideological cage.

Ladies and Gentlemen, this naturalism is the strongest force for the legitimate expression of research in the academic world in the West today. You cannot go to college without being confronted with it.

I am constantly tripping over naturalists in the halls where I teach. They seem to be everywhere! © Or are in the closet about it.

Many of my students are also sublimely seduced by this ideology. One reason is that many believers are using the God in the gaps fallacy. But thoughtful thinkers do not do that!

What is naturalism?

There is no uniform agreement on what it is, but most atheistic thinkers believe it is like yogurt commercials, that everything in it is natural.

Naturalism is the system of belief or research paradigm that excludes any teleological, theological or supernatural explanations for the elucidation of phenomena in the universe. It assumes that the best explanations are causal non-purposive explanations, ultimately depending on the causal regularities of the physical sciences. Moreover, if anything cannot be explained by the machinery of the hard sciences, then it either is a mystery waiting to be solved, is epiphenomenal or does not exist (it is a social or linguistic artificial convention).

Is naturalism unscientific? I will argue that it is unscientific and paradoxical.

To restrict things like the search for empirical evidence for religious ideas is against the very principles of science. The John Templeton foundation have an entire research program for bring understanding between science and religion.

However, I argue that science has been hijacked by naturalistic people who hide behind their anti-religious or anti-supernatural inclinations and call it "science."

This dogmatic method is not isolated in the scientific enterprise. This is not science by any means. It is dogmatism.

In a review of a book by Carl Sagan, Richard Lewontin, Alexander Agassiz Research Professor at the Museum of Comparative Zoology, Harvard University, wrote that current science requires a prior commitment to both methodological and philosophical naturalism that cannot allow other worldviews to invade its academic turf:

It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counterintuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door. ⁹

This dogmatic method is not isolated in the scientific enterprise. This is not science by any means. It is dogmatism disguised as science. It is my hope that you can understand the antagonism against any teleological or theological advances in the scientific sphere is a result of a prior commitments and personal agendas disguised as science. At least religious folk have dogmas and are open about them. It is thus no wonder why the scientific movements that try to establish the existence of God or provide any verification for the supernatural are automatically ruled out before their evidence is even presented.

I strongly recommend Alvin Plantinga's book *Where the Conflict Really Lies*. In it he makes the case that there is no conflict between science and Christianity but between naturalism and Christianity. He also argues that.... It's almost impossible to imagine how science could exist if there was nothing but science. –

In my kids favorite books, *The Bearinstain Bears*, the book called *Keeping the Faith* the bears meet an atheist bear, and the conversation goes like this.

"I don't believe that God created the world," said Freddy. "In fact, I don't believe in God, at all."

"You don't believe in God?" asked Brother, surprised.

"No," said Freddy, "I believe in science-in things you can see and test and prove."

This ebook is for bears like Fredy.

So what are there things that we cannot prove with science alone? Yes. I will now give you 10.

10 Blind Spots of Science

- 1. Logical Truths: These must be accepted as foundational presuppositions in order for us to engage in any scientific study, so we clearly can't use science to prove logic. In fact, it is the other way around. We need logic to make sense of science. When I say logic, I mean axiomatic principles of rational thought that govern how truth-valued statements or ideas can be related in truth-preserving ways. Prime examples of such laws would be the three classical principles whose earliest formulations are attributed to Aristotle:
 - i. **Law of Identity**: that every true statement is true and every false statement is false
 - ii **Law of Non-Contradiction:** that no statement can be both true and false
 - iii. Law of Excluded Middle: that every statement must be either true or false.

It must be granted that even these three time-honored principles are not beyond controversy, for the truth of each one has been challenged by philosophers both ancient and modern.

My wife cannot be pregnant and not pregnant at the same time and same sense. A truth cannot be false at the same time as it is true. If all mothers are women, then every mother we meet must of necessity be a woman. There is no escape from this. These are logical truths that science relies upon.

A man who claims that he does not accept logic or that it is a human convention and invention is cutting off the legs he is standing on, or denying the very words he is using to denounce it! Basally he is using logic to deny logic.

James N. Anderson and Greg Welty wrote a brilliant paper about this published in *Philosophia Christ*, 13:2 (2011) titled "The Lord of Non-Contradiction: An Argument for God from Logic", and they conclude the following:

"The laws of logic are necessary truths about truths; they are necessarily true propositions. Propositions are real entities, but cannot be physical entities; they are essentially thoughts. So the laws of logic are necessarily true thoughts. Since they are true in every possible world, they must exist in every possible world. But if there are necessarily existent thoughts, there must be a necessarily existent mind; and if there is a necessarily existent mind, there must be a necessarily existent person. A necessarily existent person must be spiritual in nature, because no physical entity exists necessarily. Thus, if

there are laws of logic, there must also be a necessarily existent, personal, spiritual being. The laws of logic imply the existence of God. See for the full document: http://www.proginosko.com/docs/The Lord of Non-Contradiction.pdf

Allow me to illustrate. I remember teaching logic a couple years ago and one lady stood up and began to list reasons with a conclusion as to why we should not have logic classes. She said that if this class is all about arguing, "then I am out. I am tired of arguing and getting nowhere with people. We don't need logic." The problem was that she was using logic to dismiss or the use of logic! Logic is based on syllogisms. If Socrates is a man, and all men die, then it follows that Socrates will also die. This is called a deductive argument. This is exactly what my student was doing. She used logic to dismiss logic, which is all about giving reasons! She philosophically cut her own throat

Consider the statement, "Science is the only way to really know truth." How can we prove that with science? We can't. So can't use science to prove logic. In fact, it is the other way around. We need logic to make sense of science.

2. Metaphysical Truths: Some truths about the nature of the world (such as whether or not the external world is what we think it is, our free will and our selves) cannot be determined through the use of the hard sciences. Your personal identity, your sense of self and personhood is not found in your DNA alone. You, and you alone, are precious and sacred and special, not

because of your DNA or intelligence or beauty, but because you are created in the very image of God, the *imago Dei*. That is a metaphysical truth that makes everything else about us make sense!

Jessica McClure Morales (born March 26, 1986) became famous at the age of 18 months after falling into a well in her aunt's backyard in Midland, Texas, on October 14, 1987.

Jessica McClure Morales was born March 26, 1986, in the oil city of Midland, Texas. The first 18 months of Baby Jessica's life passed without the world at large taking much notice. Then, on the morning of Wednesday, October 14, 1987, she suddenly became the most famous child in the country.

Baby Jessica had fallen into an eight-inch diameter well and become trapped deep down in its shaft.

How exactly Baby Jessica fell into the well remains unclear.

Baby Jessica remained trapped in the well, 22 feet below ground and only 8 inches wide, for the next 58 hours, while frantic rescue crews attempted to save her life and the entire nation watched transfixed as the drama played out on television.

Because she had fallen so deep into the earth -- beneath layers of rock harder than granite -- and because the diameter of the well was so narrow, the rescue mission was extraordinarily difficult.

Using a large rat-hole rig, a machine normally used to plant telephone poles in the ground, rescue teams drilled a 30-inch wide, 29-foot deep hole parallel to the well.

They then began the difficult process of drilling a horizontal tunnel between the two wells about two feet below where Baby Jessica was trapped.

In the meantime, rescue workers pumped oxygen into the well and attempted to maintain constant communication with Baby Jessica, who moaned, wailed and for a while even sang nursery rhymes to pass the time. "

The entire rescue ordeal was covered live on CNN, the nation's first -- and at that time only -- 24-hour news network. For only the second time in American history (the first being the explosion of the space shuttle Challenger a year earlier) the entire nation watched literally around-the-clock as a dramatic news story unfolded live on television.

Now why spend all this time and money on one little girl? Unless she is precious more precious than all the matter in the universe!

That ladies and gentlemen is not a scientific conclusion.

3. Moral and Ethical Truths: Science cannot tell us what is morally virtuous or vile. It tells us what "is." But it does not tell us what "ought to be" (related to moral judgments). Science can tell you who died, how he died and what way he was killed. But it cannot tell you if he was murdered unjustly–it cannot tell you if it was wrong to kill him. Sam Harris and many others tried but failed to do this. Harris argued that "The minimum standard of moral goodness is to avoid the worst possible misery for everyone"

But why is it moral? Again that leads us to the is ought fallacy. Just because something is, it does not follow that it should be. Rape is part of cultures world wide, but it ought not be.

Just this last week in Begum and Lahore in and a few months ago in ANKARA,

Turkey --Nearly simultaneous explosions targeted a Turkish peace rally killing at
least 86 people and wounding nearly 190 others in Turkey's deadliest attack this
year. And back in March 31, 2008, Remote-controlled explosives were strapped to
two women with Down's syndrome and detonated in coordinated attacks in
markets in central Baghdad killing at least 73 people and wounding nearly 150!
Scientific analysis can tell how much ammunition, nails and TNT was used, it can tell
us how many people died, how many more will die, but it cannot tell us that these
attacks are wrong, or evil! Natural science may tell us what is but not what ought to
be. Science is about facts not moral prescriptions.

4. Scientific Truths: Science itself is based on assumptions that can't be proven scientifically. Nature is orderly it follows regularity, pattern, and structure.

Physicists Stephen Hawking and Lawrence Krauss, biologist EO Wilson, and astrophysicist Neil deGrasse Tyson dismiss philosophy (and much of the humanities) but they assume philosophy in their own work! They smuggle philosophical concepts and theories of to make sense of the universe.

General relativity and quantum mechanics, for example, have opposing views of the universe and have yet proven experimentally true. Endeavors to unite them, such as string theory, are widely regarded as incomprehensible even to those working in the hard sciences.

Science itself does not tell us if science is a good in itself. It does not tell us if the world is better with science than without it. These are questions that the humanities try to address. Science gives us nuclear energy which the United States uses 103 commercial nuclear reactors generating 782 billion kilowatt hours (kWh) of electricity for our country, we can use it for good, or use nuclear energy to destroy our world. Science does not tell us what to do with that energy. The humanities my field, address these types of questions.

Rev. John Polkinghorne, English theoretical physicist, theologian, writer and Anglican priest wrote that there is more than one answer to the question of "Why is the water boiling in the tea kettle?"

The scientific answer might be "the water is boiling because at this temperature it undergoes a phase transition from liquid to vapor." Another acceptable, though nonscientific, answer is "the water is boiling because I want some tea." …None of the answers is wrong; rather, each gives a different perspective on the question. The scientific answer does not tell the whole story. Science cannot answer questions like "Should I marry my girlfriend?" "or what is the nature of marriage? or "Is this poem

well written?" Science is tremendously successful in understanding the physical world, but we should not let that tempt us to think it can be used to understand everything in life.

- See more at: http://biologos.org/common-questions/christianity-and-science/science-and-religion#sthash.acxwDkQ1.dpuf
 - 5. Mathematical Truths: Math is an intricate amalgamation of inventions *and* discoveries. Yes we invented the concepts, theories and words to describe the world of numbers, shapes, sets, etc. But we did that by first discovering certain patterns and laws that repeat and work when in certain combinations in complex connections in the very fabric of the universe itself. Its as if there was a mind that placed these templates that reality needs to exist! We call this mathematics. The Pythagorean theorem and other principles help us to understand science. These are mathematical laws that we cannot know will work using science alone.
 - 6. Conscience Truths: Scientific analysis can never tell us "what it is like" to experience love or hate or betrayal. MRI or CAT scans of our brains will not produce data on this. This is private and personal knowledge that cannot be gained by a scientist. Scientists and scholars call it, Qualia. It is the nature of experience itself that does not lend itself to a scientific third person analysis. By the way, the idea "I cannot believe anything that is

non-physical," is itself a non-physical thing! This is what we call a contradictory statement. There is also the issue of intentionality, or content of the mind. Alvin Plantinga, former professor at the University of Notre Dame argued for the non-physical nature of intentionality or mental content, think of your mother:

"We can examine sic neuronal event[s] as carefully as we please; we can measure the number of neurons it contains, their connections, their rates of fire, the strength of the electronic impulses involved, the potential across the synapses with as much precision as you could possibly desire; we can consider its electro-chemical, neurophysiological properties in the most exquisite detail; but nowhere, here, will we find so much as a hint of content[[about your mother]."1

Furthermore, you cannot have thinking without a thinker. Thinking or intentional thoughts cannot be about things unless there is meaning in these thoughts. These thoughts are not physical. They do not have weight, volume, color or mass, they are also private and first personal. No one has access to these thought but the thinker. The one thinking them must have at least one part of his nature to be non-physical. Descartes was right, I am a thing that thinks or "sum res cogitans" and this thing that thinks must have a non-physical aspect that we call the soul.

¹ A. Plantinga, "Materialism and Christian Belief," in *Persons Divine and Human ed. P. Van* inwagen and D. Zimmerman (Oxford University Press, 2007), 109.

For example, in 1974 Thomas Nagel published the famous paper called "What it is like to be a Bat". Nagle makes the strong argument that the very the best chiropterologist (Bat expert) in the world who is most knowledgeable about the mating, eating, breeding, feeding and physiology of bats, has no more idea of what it is like to be a bat than anyone else could.

Similarly, I have no idea what a hummus or garlic tastes like to you, because I am not you and cannot ever be in your head to feel what you feel.

What's more, if you tell me your favorite song is "Beat It" by Michael Jackson or "Amazing Grace," there is absolutely no way I can argue that you are wrong.

Science cannot address conscious or experiential truths like these.

7. Literary Truths. We cannot know by science alone that Mark Twain's

Huckleberry Fin was a more interesting character than Homer's

Agamemnon or Harry Potter. Literary truths require analysis, but not the
same kind that rocks or comets do. By the way...

I was at a used book store, and the check out clerk asked me if I would donate money for their literacy program for children. I said sure, what are the children reading? She said "anything" as long as they are reading. I then asked her, 'After we establish that they can read, I understand that. But would you say the same thing

about what these children eat? Does it not matter what they put in their minds as much as it matters what they put in their bodies?" She said she couldn't make moral judgments like that. I said, "Isn't that a judgment." She became upset. I took my book and ran ©. Anyway, what makes a good book good is not a scientific question!

8. Physical Laws: There are laws and equations built in the very foundation of the universe, such as, thermodynamics, electromagnetism, the strong force, the weak force and gravity—which most cosmologists tell us were present in the singularity over 13 billion years ago. These are what make science work, but science alone cannot explain them.

Richard Dawkings wrote that:

In a universe of electrons and selfish genes, blind physical forces and genetic replication, some people are going to get hurt, other people are going to get lucky, and you won't find any rhyme or reason in it, nor any justice. The universe that we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil, no good, nothing but pitiless indifference." --Richard Dawkins, *River Out of Eden: A Darwinian View of Life*.

But he did not arrive at that conclusion that there is no purpose or good or evil on science alone. No, he assumed that based on his atheistic point of view. Which he has not proved. Science gives us physical truths, but it does not interpret them for us. We do that using our ideas and ideologies.

Allow me to illustrate:

There is a story of Joseph who thought he was dead, but in reality he was very much alive. This became such a problem for his family finally paid for him to see a psychiatrist. The psychiatrist spent many sessions trying to convince Joseph that he is still alive. Nothing seemed to work.

Finally the doctor tried one last approach. He took out his medical books and proceeded to show Joseph that dead men, dead as long as he thought he was dead, don't bleed. After hours of tedious study, Joseph was convinced that dead men don't bleed.

"Do you now agree that dead men don't bleed?" the doctor asked.

"Yes, I do," Joseph replied. "Very well, then," the doctor said. He took out a pin and pricked the patient's finger. Out came blood. The doctor asked, "What does that tell you?"

"Oh my goodness!" Joseph exclaimed as he stared at his finger ... "Dead men do bleed!!"

9. Forgiveness and Peace. Study all you want, and you will not be one step closer to finding forgiveness or peace for your sins and the people you hurt with biology or chemistry alone.

Dylann Storm Roof on June 17, 2015 entered a prayer service at Emanuel African Methodist Episcopal Church, and killed nine people, including senior pastor and state senator Clementa C. Pinckney, and injured one other person. The families formally came forward to deliver a powerful message of forgiveness.

"You took something very precious away from me," a family representative for Ethel
Lance, who died in the massacre, told Roof on behalf of Lance's loved ones. "I will never talk to her ever again. I will never be able to hold her again. But I forgive you and have mercy on your soul. You hurt me. You hurt a lot of people, but I forgive you."

This type of forgiveness that we all need when we have deeply done wrong to others, is not something we can get from science.

10. Purpose and Hope. You cannot find the purpose of all of life, and your life in particular, with scientific analysis

Pascal wrote that "Man is only a reed, the weakest in nature, but he is a thinking reed. There is no need for the whole universe to take up arms to crush him: a vapour, a drop of water is enough to kill him. But even if the universe were to crush him, man would still be nobler than his slayer, because he knows that he is dying and that is an advantage He has over the universe. The universe knows none of this. Thus all our dignity consists in thought.for Man is neither angel nor beast [he has a great purpose] (200) There is a purpose to our lives, and science with all its greatness does not give that to us. (678)

And these are the 10 truths that science in principle cannot know because these are not scientific issues, but nevertheless are issues we cannot avoid.

The late Francis A. Schaeffer, gives a brilliant analogy of life in that of a two story building. In our culture we have come believe that the world is divided into two camps, the upper story and the lower story. In the lower story is the cognitive stuff that counts as real knowledge: science, reason, data, materials, computers, tress, bodies etc. In the upper story is the non-cognitive stuff that gives life meaning, but it is ultimately nonrational and unscientific unverifiable and thus in the realm of faith not in the realm of truth. The atheist think the upper story is artificial and man made. There really is not upper story, it is just our way of making sense of the lower physical story.

See this link for more info:

http://www.firstthings.com/article/2004/11/total-truth-liberating-christianity-from-its-cultural-captivity

See this video 'Good Days and Bad Days ft. by Nick Vukici on youttube https://www.youtube.com/watch?v=Cau5MJ-fRsU

Science is a wonderful tool that we ought to and should continue to cultivate! Yet at the same time Science does not have all the answers and never could.

Nick said in the video that

You may have arms and legs but unless you know three things	
1) Who are you?	
2) What is your purpose?	
3) What is your destiny?	
If you don't know the answer to these questions you are more disabled than I!	
And that these questions , ladies and gentlemen cannot be answered scientifically	y!
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THANK YOU

I hope you've enjoyed this eBook as much as I loved writing it for you. I can't thank you enough for your continued support of logicallyfaithful.com Blog and everything I do there~!

If you have not signed up, do it soon for updates,

I would love to keep in touch!

If you have an extra second, I would love to hear what you think about it.

Don't hesitate to shoot me an email. I read each and every single comment and email, so don't be afraid to say hi!

Lastly, if you haven't already, you can follow me on Twitter (@socratricknight), and join in on the conversations by commenting on the posts on the blog.

Thank you

Khaldoun

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ENDNOTES

¹ D. Dennett, "The Bright Stuff," *New York Times*, July 12, 2003. For more information of Brights, see their webpage, available at http://the-brights.net.

² Science. (n.d.). *The American Heritage*® *Science Dictionary*. Retrieved June 21, 2008, from Dictionary.com website available at

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³ Understanding evolution for Teachers At Berkley

http://evolution.berkeley.edu/evosite/evohome.html; last accessed 21 June, 2008. Images also from this webpage.

- ⁴ R. Lewontin, "Billions and Billions of Demons," Review of Carl Sagan's *The Demon-Haunted World: Science as a Candle in the Dark. New York Review of Books*, Vol. 44, No. 1, January 9, 1997.
- ⁵ J. Kim "mind-body problem, the" *The Oxford Companion to Philosophy*. Ed. Ted Honderich. Oxford University Press, 1995. *Oxford Reference Online* (Oxford University Press)

http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t116.
e1469; last accessed 21 August 2004. Scientific research can confirm that lives with purpose are more lasting, but it does not tell us what that purpose is.