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OPINION

The God Delusion, and the Damage It Does to Society

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ABSTRACT

This article presents the scientific approach to life and living. So far as science is concerned, God is an unnecessary hypothesis; a failed hypothesis. Its prevalence, even among many professional scientists, has done much damage to society. The atheist's worldview is presented, and the need for adopting it is stressed.

KEYWORDS: Atheism; religious indoctrination during childhood; advantages of the scientific approach; the complexity argument against the God hypothesis.

The best gift we can give to our children is the creation of conditions in the family, and at school, in which they can grow to become independent thinkers, unencumbered by the views their parents or teachers may hold. The young minds are highly impressionable, and what they learn has long-lasting, even permanent, effects on how they behave and think when they are adults. Credulity in a child is an evolutionary necessity. It suits the child as well as the parents. But every child has the right to be exposed to all streams of thought before making a choice, particularly regarding the 'God' concept. The God concept is illogical and untenable (Paulos, 2008).

The Logical Fallacy of the God Concept

In science there is no place for any unquestionable authority. Only logical and verifiable ('falsifiable') propositions are relevant. Einstein was a brilliant scientist, and we humans can take pride in the fact that we belong to the same species as he. But his views on quantum mechanics were wrong, and he was

shown his place on that issue (Kumar, 2011). So we should never quote the scriptures or any 'wise' or 'noble' person when we want to argue about some *fact*. Facts are established by evidence, not by opinion or preferences or desirability. Intuition and inspired guesses, even traditional empirical information and folklore, are fine when it comes to building up a *model* for explaining a set of data, but the real test of that model will always have to be hard-core and repeatedly verifiable evidence.

The first thing to note is that, by adopting a strictly logical, honest, and objective approach to data, we humans have been able to achieve so much. To appreciate this properly, and to take pride in our scientific heritage, we should understand the basics of this approach. In particular, we must admire the indomitable human spirit which, in spite of the hostile conditions in which it had to progress, came up on top by adopting THE SCIENTIFIC METHOD of interpreting natural phenomena (Dawkins, 2000: 2009). 'Science is the process that takes us from confusion to understanding in a manner that's precise, predictive and reliable — a transformation, for those lucky enough to experience it, that is empowering and emotional' (Brian Greene, quoted in a newspaper article).

There can be no place for reverence for authority in the scientific method. Just imagine, if we humans had taken Einstein's word on quantum mechanics seriously (overawed by his giant intellect), the progress of science and technology would have been pushed back by several decades.

Here I must refer to two important concepts in science: entropy and complexity. Entropy is a measure of disorder. It is thus just the opposite of information. Information means knowledge, and entropy or disorder is a measure of absence of knowledge. Thus 'negative entropy' and information have similar connotations.

In science the term 'complexity' has a technical meaning. In particular, it is not the same thing as complicatedness. The 'degree of complexity' of a system can be viewed as the amount of information needed to describe the structure and function of

that system. A living organism is far more complex than, say, a crystal of common salt (NaCl). The amount of information needed to describe the structure of a crystal of common salt is not much compared to the degree of complexity of a living organism.

Energy drives all change. Energy is the engine of evolution. Our Earth (a thermodynamically 'open' system) receives most of its energy from the Sun, and the Sun produces it by thermonuclear reactions (conversion of mass into energy). The influx of solar energy into our ecosphere drives it away from equilibrium. Any system away from equilibrium will naturally tend to move back to equilibrium and (concomitantly) towards a state of higher entropy (as dictated by the second law of thermodynamics). Thus, a pushing of a system towards a state of disequilibrium (by solar energy in our case) can be thought of as an influx of 'negative entropy'. And remember, negative entropy means information.

So, what the Sun has been doing all the time is to increase the information content of Mother Earth. This perpetual increase of information content is what drives evolution of various kinds. Evolution is not only biological; it can also be chemical, or even cultural.

The basic concept of biological evolution (higher chances of survival and propagation of the fittest, and adaptation and evolution of species (even emergence of new species) by the consequent processes of cumulative natural selection) was introduced by Charles Darwin over 150 years ago (Darwin, 1859). His basic idea has stood the test of time [in spite of all the vicious attacks by vested interests (Dawkins, 2007)]. In fact, there is even a flourishing new subject called 'artificial evolution' (Wadhawan, 2007). In it, you program your computer in terms of notions very similar to Darwinian or Lamarckian evolution, and use it to solve a huge variety of highly complex scientific and technical problems. The evolution of problem-solving capabilities in intelligent robots is also achieved by this remarkably powerful approach (Wadhawan, 2007: 2011). And the best is yet to come!

Chemical evolution preceded biological evolution. Molecules of increasing complexity (or information content) evolved with the passage of time (Wadhawan, 2011). In due course metabolism and self-replication properties appeared (either together or separately), and the emergence of 'life' was simply inevitable (Wadhawan, 2011). Life just *had* to appear in the highly favourable conditions prevailing on Earth, and, after it had appeared, biological evolution did the rest. There is nothing miraculous about that. Thus, the so-called 'creation' of life is a non-issue in science, whereas theologians make a huge issue out of it (Dawkins, 2007).

And now about the God concept. The universe has a huge amount of information content, or complexity. How did the universe get created? Suppose you say that God created it. Now I appeal to your common sense and ask a question: If God created the universe, how did God get that information-content and complexity which must be at least equal to the information content of the universe? Anything simple or complex cannot have the capability to create something more complex than itself. So the God concept is no help whatsoever (it is redundant, or unnecessary), so far as explaining the existence of the complex universe is concerned. Come with something else; or simply say that we do not yet have certain answers.

But many of us still *want* a God up there, for emotional and 'moral' reasons, and for feeling secure in this utterly hostile set of natural conditions, right? Let us not mix objectivity with desirability. There are people for whom, no matter what science or scientists say, their faith in the existence of a prayer-answering God is unshakeable. For them I can do no better than quote William Hughes Mearns (as quoted by Paulos, 2008):

*As I was sitting in my chair,
I knew the bottom wasn't there.
Nor legs nor back, but I just sat,
Ignoring little things like that.*

What is prayer anyway? Prayer means 'to ask that the laws of the universe be annulled on behalf of a single petitioner confessedly unworthy' (Bierce, 1911).

The Atheist's Worldview

Since there is no sensible God concept that I can take seriously, I have to manage without it.

As of now, life is known to exist only on Earth. And in this life chain, we humans have evolved to be at the top (Dawkins, 2009). This means that in the present scheme of things in Nature, we occupy a highly privileged position. We can feel a great sense of pride in that, but with privileges come responsibilities. Mother Earth is our collective responsibility. There is no 'God' around who can be depended on to take care of our habitat by his benign intervention, in spite of our follies. We are the doers and we are the judges; there is no outside agency.

My life can survive only in a narrow range of temperatures and pressures. It is extremely vulnerable and fragile. This is bound to give me a sense of insecurity, and a yearning for a father-figure I can turn to for solace and reassurance. Unfortunately, that wish cannot be fulfilled, no matter how desperate I am about it. Therefore I have no choice but to be a brave, rational, and responsible citizen of the world I live in.

I take genuine pride in the fact that my ancestors developed the scientific method of interpreting information. I accept nothing without evidence. This gives me a great sense of liberation and power. Elitism? Yes. And why not? All the accumulated scientific knowledge that humanity possesses is verifiable knowledge, and my proud heritage. And yet I have no sense of attachment to it. If tomorrow new evidence is found, which demands a change in the way I look at Nature, I shall have no trouble abandoning even my pet theories. This is true intellectual humility, and in sharp contrast to what happens in theology. You are not permitted to question certain statements there; you must accept them as a matter of faith, or command. How stultifying that must be for the intellect. Such an approach can kill the spirit of free enquiry, and deny the pleasure of discovery. I am glad that I do not suffer from that terrible handicap. Come join the elite club.

Selfishness and a sense of self-preservation is built into my evolutionary history, and therefore into my genes. But

it is not individual selfishness necessarily. My brain has evolved to a state where I understand the benefits of *collective* self-interest.

I am a good and charitable person because it feels good to be so. If I am good to others, it is beneficial for my mental health. If I am good to others, I am being a responsible world citizen. I pity a person who is good only because of the fear of punishment/retribution by an imaginary 'God' for bad actions. My morality comes from within, because it is sensible to be moral and ethical. Being a moral person feels good. Why should I be moral and upright only because I am a 'God-fearing' person? And what is God anyway?

Since Mother Earth is my responsibility, I should do nothing that harms the ecosphere unnecessarily. That is a matter of simple self-interest (collective self-interest). Just look at the pollution caused in the name of religious rituals, for example, *havans* and *pujaas*. Mindless burning of precious resources is a crime, and it is happening because of an irrational belief system. The depredations of the three Abrahamic religions have been discussed in detail by Richard Dawkins in his famous book *The God Delusion* (2007). I feel sad about the immense damage done by practically all organised religions to Mother Earth and to humanity: wars, terrorism, meaningless rituals and wastage, inter-religious hatred and animosity, atrocities on women and children; the list is very long indeed. 'Those who can make you believe absurdities can make you commit atrocities' (Voltaire, 2005). 'With or without religion, good people will do good, and evil people will do evil, but for good people to do evil, that takes religion' (Steven Weinberg, quoted in *The New York Times*, April 20, 1999). It is our duty to raise our voice against all irrational acts and thinking.

Many people *create* a God because they want one. Their upbringing has been such that they would have withdrawal symptoms if their God were taken away or demolished by logical and responsible reasoning. In fact, they exhibit arrogant or even violent behaviour when this happens. Does that ring a bell? *The symptoms are the same as those of drug addicts*. An erstwhile Chief Minister of West Bengal could not give up smoking because he could not cope with the withdrawal symptoms. But

can that justify his addiction? No addiction can be justified. I feel good about the fact that I do not suffer from God-addiction.

Free from the God-created-everything syndrome, I can indulge in a great sense of wonder at the way complexity has evolved in Nature, starting from simple inanimate matter. There is a great sense of accomplishment when I or any of my fellow humans unravels one more ‘secret’ of Nature. And I keep thanking the scientific method for this, which is a great accomplishment of the human intellect. *I should do nothing to insult the scientific spirit and the scientific method.* And I am grateful for the ever-mounting fallouts of this method of discovering the secrets of Nature. I am proud of the scientific and technological heritage of humankind, a triumph of the human mind, particularly the collective human psyche (leaving out the irrational believers, of course).

Visions, Dreams, Premonitions, Coincidences, and All That

Interactions or forces operative between any two or more objects have to be from one or more of the following:

- The electromagnetic interaction.
- The gravitational interaction.
- The nuclear interaction.
- The electro-weak interaction.

No other interactions or forces are known to us at present.

No object can move with a speed greater than that of light (Einstein again).

The past is dead, and the future cannot be predicted. Therefore, all astrology has no basis, as also numerology and all that.

No macroscopic object can be at two different places at the same time. If you take seriously some of the claims made by *yogis, babas* etc. (regarding clairvoyance, premonitions, predictions, dreams coming true, and all that), you have to postulate the existence of at least one more interaction (in addition to the four mentioned above), *with mutually contradictory properties*, and in clear violation of the known

laws of science. Science does not have all the answers, but we are trying to get more and more answers. If anybody can establish the existence of this completely crazy-looking interaction I just mentioned, he/she will surely be honoured with a Nobel Prize, and may become more famous than Einstein. Science, of course, always welcomes new knowledge and insights.

Brain science is a very challenging science, and there is a lot we do not understand at present. But we are always trying. There are various views on the meanings of dreams, if at all there are meanings. The feel-good factor, as also the feel-bad factor, plays huge tricks on the brain; we tend to remember what we like or cherish, and tend to forget or ignore what we do not like or do not find interesting (Ramachandran, 2010). Our upbringing and mental conditioning since childhood has a major role to play in this (Dawkins, 2011).

We all want to feel important. What can feel better than being close to 'God, the almighty', even an imaginary God?! But it is nothing more than a self-imposed delusion, the God delusion. Just make-believe.

Some of the great names among the classical psychologists are: Freud, Jung, and Adler. Adler built on the idea that much of our frustration and mental disorders come when we cannot have control over situations or domination over others (<http://www.alfredadler.edu/about/theory>). People go to extraordinary lengths to achieve this control. It appears that in the case of ascetics, this aggression is turned inwards, and they try to control their bodies and thoughts. It makes them feel good, and in control. I think a stage comes in their penance and meditation when their brain starts imagining things; they interpret it as 'divine revelation', 'flashes of insight', and what not.

Being of service to others certainly rebounds on you in various ways, and you are always a gainer in the long run. The 'spiritual' leaders, knowingly or unknowingly, do things which often amount to charity and social service, but there is an additional bonus for their ego: They exercise huge control over the minds of large numbers of people. Adler again.

Ascetics and ‘spiritual’ leaders are called ‘holy’ men or women, whatever that term means. A nonscientific ascetic does little more than torture himself, apart from influencing others with his/her irrational and therefore false beliefs. A scientist, on the other hand, improves the quality of our physical, mental, and cultural life by his/her discoveries and inventions, by strictly following the tenets of the scientific method. Who is the ‘holier’ of the two: the ascetic or the scientist? Who is more deserving of our gratitude and reverence?

Why is There So Much Irrational Belief Around?

Blame it on the upbringing of children. Parents impose their beliefs on their little children. This is not fair. Every child has a right to be exposed to all streams of thought. In particular, it is our duty to ensure that we do not shield our children from the scientific approach to things. We want our children to grow into fearless truth-seeking individuals, no matter how harsh the truth may be. The whole truth, and nothing but the truth. We do not want that any of them should move around in life like a zombie, repeating certain statements parrot-like, without pausing to think about their veracity or logic.

Some of the scientific arguments and theories are not for the intellectually meek. By contrast, it does not require *any* intelligence to have blind faith in something. But even a moderately intelligent child can develop a scientific outlook on life if brought up in an atmosphere in which all types of questions are encouraged, and no idea is treated as unchallengeable or taboo.

It is necessary to have a basic understanding of statistical theory for a correct interpretation of many of the coincidences, ‘premonitions’, ‘miracles’, etc. Unfortunately, even among the trained scientists there are many who lack this understanding. ‘Statistical significance’ and ‘level of confidence’ are technical terms. How many educated persons actually bother to think in terms of these parameters when they come across ‘miracles’, ‘strange’ coincidences, dream-realizations, etc.? Not many. This happens because they have been brainwashed into thinking that

some questions cannot be asked, and the gospel must not be doubted. Why?

It is worth repeating and emphasizing that a high degree of intellectual prowess is not a necessity for a child to develop a rational view of things, *provided he/she grows up in an environment of rationality and free enquiry*. This is a birthright of your children. Do not deny it to them. Be a reasonable and responsible parent, who sets a good example for his/her children by having an open mind on every issue, including the 'God' issue. Parents do want to give good *sanskars* (value system) to their children. They usually do this by their own example. Give your children the *sanskar* that they should not be afraid of facing the truth. In fact, they should have a proactive approach, whereby they go seeking the objective truth, and not just sermons of 'wise' people or pronouncements in 'sacred' texts. 'Mere scholarship will not help you to attain the goal. Meditate. Realise. *Be free*' (Sivananda, 1977); emphasis added).

To the young generation I want to say this: It is nice to see how 'cool' you can be regarding all the 'in' things and the latest trends. Show me how cool you are capable of being when it comes to knowing the basics of what science is all about, and why is it that the scientific method has been so remarkably successful in engendering so many achievements of the human intellect. Should you not be curious about that? How about showing off your knowledge in that area also?

The scientific method is not the exclusive possession of scientists. The scientific method of interpreting information is the crowning glory of the collective human intellect, and is available to all of us *for applying in our day-to-day lives*. Don't miss out on it. A whole new world of good science is waiting for you to explore and wonder about. There is poetry in good science. And deep philosophy too. Rational philosophy. Scientists seek truth, and have the ever-present humility to admit their mistakes in science. What can be nobler than that? How about joining their ranks, at least as informed members of the public? That would be really cool! No?

People argue that religion has given rise to so much art and literature. Should we abandon all that? No. That is also our

heritage. Nothing prevents you from enjoying good poetry or music. I enjoy Sufi music, as also *bhajans* sung by Jagjit Singh (yes *bhajans*, and not just *ghazals*). The *Ramayan* and the *Mahabharat* are great stories. But only stories. They were aptly described by Nehru as a curious mixture of fact and fiction. *The point is that we humans must move on as we acquire more and more knowledge and understanding.* In the beginning there was no science; only ignorance or some fragmentary pieces of information. And there were superstitions, born out of the fear of the unknown. Our perspective must change in the light of new insights and knowledge. As more and more people come round to the rationalist's view of things, a new kind of art, music, and literature would emerge. Things change with time. Don't be afraid of change.

Then there are people who quote Einstein's famous remark 'God does not play dice' (Natarajan, 2008) to argue that he believed in the existence of God. Whether Einstein believed in God or not does not prove anything. In any case, this issue has been discussed in great detail in the very first chapter of the book *The God Delusion* by Dawkins (2007). Einstein's belief system is what is called 'pantheism', which has been described by Dawkins as nothing more than 'sexed-up atheism'. Einstein made the remark in the context of his opposition to quantum mechanics as formulated at that time. Recently a letter written by Einstein in January 1954 (just one year before his death) was auctioned for \$400,000. Here is an excerpt from that letter: '... the word God is for me nothing more than the expression and product of human weaknesses, the Bible a collection of honourable but still primitive legends which are nevertheless pretty childish'.

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