

INDIAN SKEPTIC

No. 02/04

April 2011



- **Baba Ramdev: Yogi or Commissar?**
- **The Bhagwan of Puttaparthi**
- **Astrology to Improve Productivity!**
- **Book Review:**

Six Impossible Things Before Breakfast

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*It shall be the duty
of every citizen of
India -*

*to develop the
scientific temper,
humanism and the
spirit of inquiry and
reform*

*(Article 51A (h) Part IVA -
Fundamental Duties,
Constitution of India)*

Contents

INDIAN
SKEPTIC

No.02/04

April 2011

Baba Ramdev: Yogi or Commissar?

Ram Puniyani



Page 04

Atheist Eve

Tracie Harris



Page 06

The Bhagwan of Puttaparthi

Narendra Nayak



Page 07

Astrology to improve Productivity!

Bangalore Skeptic



Page 11

From the President of FIRA

Narendra Nayak

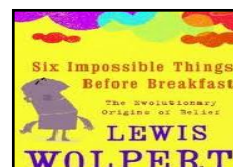


Page 13

Book Review:

Six Impossible Things Before Breakfast

Prabhakar Nanawaty



Page 17

Tools for Skeptical Thinking

Carl Sagan



Page 23

Baba Ramdev: Yogi or Commissar?

Ram Puniyani

Baba Ramdev has been probably most successful of godmen of recent times. He claims to have a following of over a billion people. There are an infinite number of people claiming that his yoga therapy and medicines work wonders for their health. Baba in a short span of time has built a multi million empire, his Trust is owning series of Ashrams, ayurvedic drug factories, yoga training centers and many such things, in India and abroad. Overall the medicines prescribed-marketed by him are selling like hot cakes. He himself adorns the divine status and his followers also regard him so, a saint, above the worldly matters. His saffron robes are a symbol of renunciation as such. All this is remarkable, good of both the Worlds, as he is not only wearing divine halo but is also presiding over the empire running into hundreds of crores of rupees built in last decade or so and now entering politics too.

In our country where currently rational thought and scientific thinking has been pushed to the back foot, the claims that his methods are scientific go unchallenged by and large. As per him he can cure Cancer, AIDS and what have you. He also states that homosexuality is a disease, something for which he has a yogic cure. Earlier he had a spat with Brinda Karat, on the issue of contents of the medicines, powder of animal bones in the samples from his factories and on the issue of wages for the workers. Baba claiming to base his Yoga on scientific ground angrily dismissed the issues raised by Brinda Karat, and one does not know what happened to the wage issue of the workers of his factory.



There are not many who can dare to raise legitimate question in the public domain about what is science? What is the method of science and whether mere reading and following of scriptures can be called as scientific? The issues related to the role of double blind trials, biochemical analysis, pharmaceutical composition and their side effects cannot be raised, as in doing so one can be easily labeled as anti Hindu-Anti religious deviant. The garb of Holy clothes is the best defense against all the legitimate questions. So what is projected to be working successfully can also be asserted to be a scientific practice. One would expect that the tall claims like curing cancer and AIDS, need to be questioned as many may get misled and loose the precious time which a medical intervention can play in a positive way.

One concedes that there must be some benefits due to things practiced by Baba and the likes of him, but these need to be regulated and peer reviewed to avoid their misuse in the society at large. Science is not a monopoly of anybody and peer review and evaluation is the best regulator for decisions about medications-practices

for society. This is indispensable to avoid the harm, in short term or long term sense. Divinity should not be permitted to protect the real social issues involved.

Lately Baba has been in the news not for divine or yogic reasons, but for the profane issues related to corruption, and his forming a political party which will fight the elections. While the crusade against corruption is welcome as such, one observes that his sayings about corruption are restricted to one political party. This is a partisan view, an attempt to hide the corrupt practices of other political parties and other actors involved in the issue of

done. A principled stand will also be to ensure that all the donations coming to the Ahsrams of Baba and his types belong to the category of what is 'accounted money'! Hope Baba has already taken care of this point before starting his campaign against corruption.

Generally the 'divine' people have to be standing for peace and harmony. One recalls that in the wake of 26/11 Mumbai terror attack, Baba had exhorted Indian Government to attack Pakistan, and that he will fund the war against Pakistan. One shudders to think of war mongers and that too with those having divine claims leading

There are not many who can dare to raise legitimate question in the public domain about what is science? What is the method of science and whether mere reading and following of scriptures can be called as scientific? The issues related to the role of double blind trials, biochemical analysis, pharmaceutical composition and their side effects cannot be raised, as in doing so one can be easily labeled as anti Hindu-Anti religious deviant. The garb of Holy clothes is the best defense against all the legitimate questions.

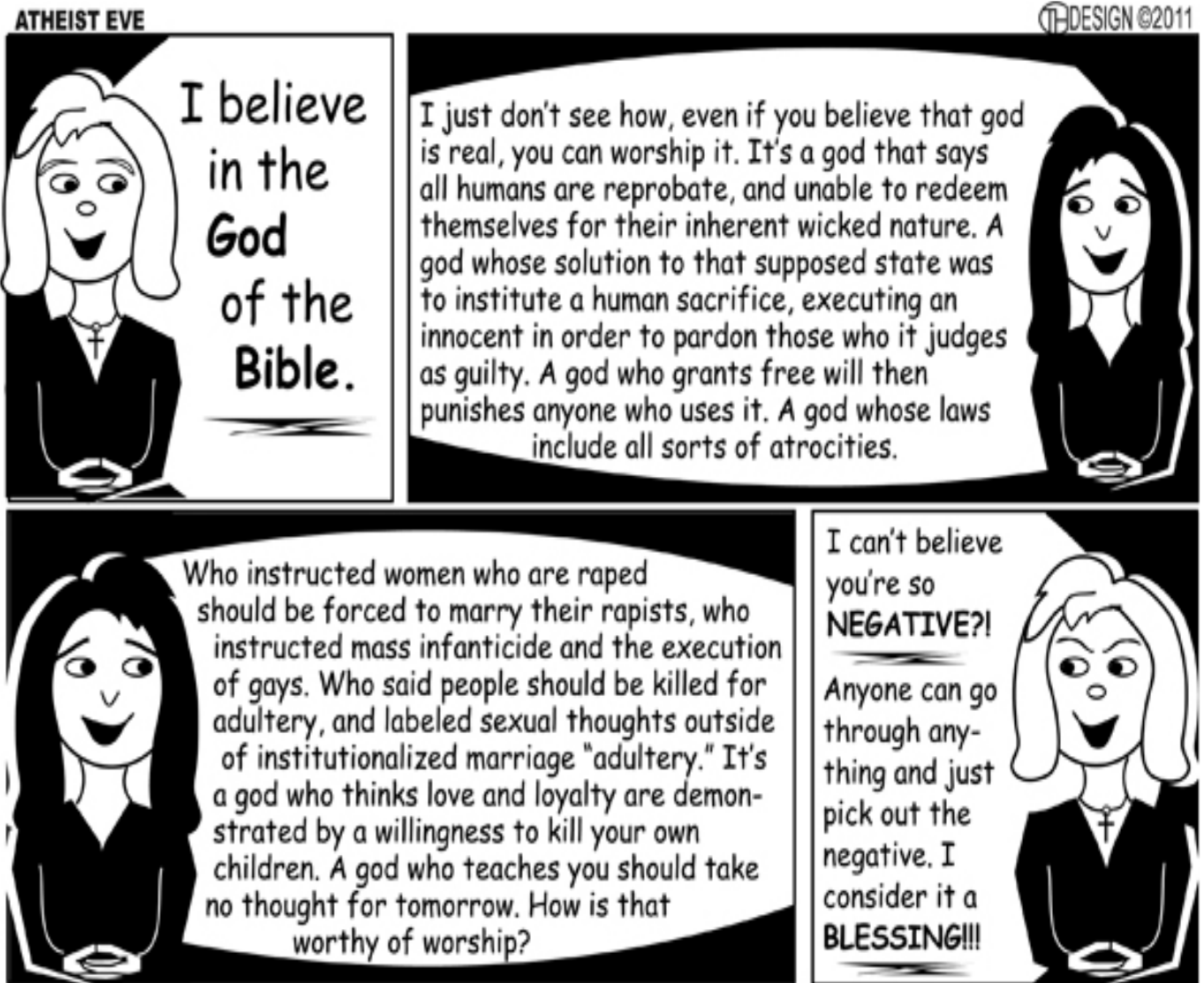
corruption. He is scathing against Congress on the issue of corruption and is silent about BJP's corruption. He is vocal about something and quiet about the corruption of rich who are equal partners in this social evil. This may indicate that the saffron clothes are being used for the goals of helping the communal party and the rich.

As such corruption has more to do with unbridled power, absence of transparency and lack of social audit on the economic transactions and policies. To link it with few political actors is an attempt to hide those who give the bribes to get their work

our political affairs. The current times have been the one where the politics has been wearing the clothes of religious identity. Baba is going one step ahead. He is trying to ride on two horses, the one of spirituality-religion and the other of entrepreneur-politician, at the same time. His association with those who have done politics by abusing religious identity, the communalists, is very clear. That may be the reason as to why he is creating hysteria around corruption by one political party rather than against corruption as a phenomenon related to our socio-political structure.



Nitpicky Negative Things



Tracie Harris is a graphic designer in Austin, Texas, US. According to the website, <http://www.atheist-community.org/>, "her long, slow recovery from a rabid fundamentalist upbringing led her to the creation of *Atheist Eve*".

Tracie Harris has been publishing *Atheist Eve* since 1 October 2004 and all her earlier works are archived at: <http://www.atheist-community.org/atheisteve/>. *Atheist Eve* is reproduced by *Indian Skeptic* with the author's permission.

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The Bhagwan of Puttaparthi

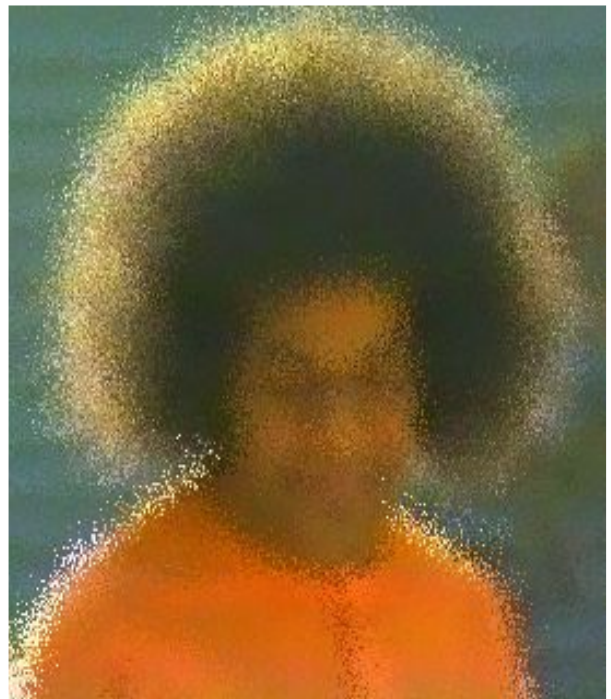
Narendra Nayak

Well it is said that it is bad to hit a man who is down. But, the same does not apply to God himself! Today as we go to the press, the God of Puttaparthi Bhagwan Sri Satya Sai Baba whose real nama happens to be Satya Narayana Rajunis is in the ICU on a ventilator and such other life support systems. While ordinary mortals like us require such things one always wonders why a God should need all those. In fact, the newspaper reports have stated that at one point of time there were 27 doctors attending on him! Certainly they will not be ordinary ones but those with a roaring practice and must be quite competent in their field. One wonders what is happening to their other patients when they are all busy attending on this God. Any way, it is a wonder as to why some one whose miraculously materialized holy ash or

vibhuti has allegedly cured thousands of people from various diseases from Arthritis to Zollinger's syndrome has to be attended on by mundane humans! Is it that as many claim, one's own medicine does not work on oneself?

This 85 year old god started his career as a small time prestidigitator 'materialising' things like sweets for his school mates. He also claimed to be an avatar of the Shirdi Sai Baba who is a much revered saint from the eponymous place in Maharashtra. However, he was not allowed to step into that place! The temple there is a very prosperous one and those controlling that would have been certainly scared of him taking over the place! Starting with small time miracles like materialising things like small trinket and vibhuti or holy ash, he soon went into big league. He started with

This 85 year old godman started his career as a small time prestidigitator 'materialising' things like sweets for his school mates. He also claimed to be an avatar of the Shirdi Sai Baba who is a much revered saint from the eponymous place in Maharashtra. However, he was not allowed to step into that place!



his present headquarters in Andhra Pradesh called Puttaparthi which grew from a small village to a major pilgrimage center which it is now with its own airport and railway station. He started attracting devotees from all over the world particularly from the very materialistic West and those people who were spiritually minded and started his missions all over the world. As his fame grew, politicians from India started flocking to him probably seeing him as a store house for their ill-gotten black money. These so called ashrams of these alleged godmen are a major store house for the ill-gotten wealth of these politicians and a source of corruption too. It would be very appropriate to bring these too under the newly going to be drafted Lokpal Bill! However, one can be sure that this will not be done as many such are the supporters of Anna Hazare, the new middle class messiah. His supporters have managed to keep away whom they call as corrupt politicians but the same yardstick has not been applied to such so called god men!

More than anything this so called god has been ascribed many miracles. There are numerous biographies of him or rather hagiographies crediting him with a plethora of miracles. One should take a look at these as they are what he calls as his visiting cards. His most famous 'miracle' of materialising holy ash or vibhuti has been exposed innumerable times with videos all over the web and making their rounds as video clippings. It was a series made by the Channel IV called Guru Busters that exposed how this trick is done with a pellet of ash hidden in between the fingers and crushed with the rotation of the palm. This has been ascribed miraculous powers by many of his gullible devotees which include eminent physicians too! In fact one such person has gone on record claiming that her patients had been maintained on doses of this panacea. It has been claimed to cure a variety of disorders of organic and functional origin. It has been credited with providing solutions to a number of

family, social and probably national problems too. This holy ash however is the present to ordinary mortals who flock to Puttaparthi for a glimpse of their god.

The VIPs who visit him are presented with a variety of trinkets like rings, chains and such. However, all the objects which he claims to materialize can be easily hidden in a closed fist and then this is rotated to make it appear as if the object is appearing from thin air. He has been caught in this act many times particularly in video footage by Doordarshan the national channel controlled by the government, when he tried to 'materialise' a gold chain from under a memento at a function held at Hyderabad in the presence of the then Prime Minister of India P.V.Narasimha Rao and a number of other VIPs. He wanted to show the whole nation his greatness by getting the same broadcast on the national news to snub his detractors. On the contrary, this video footage showed clearly his modus operandi! This was noticed by an editor of the footage and not broadcast. But, the same was obtained by our movement and started making its rounds all over the country and is now on you tube too. The very same happened to his regurgitation of a gold Shiva lingam on the Shivaratri day when he used to bring out the object hidden in a towel, put into his mouth under the pretext of wiping his face and making it appear as if it was coming from his stomach. It was claimed that his body contains a lot of gold which comes out as these lingams. On a particular occasion in 2004 when BBC was filming this, the lingams failed to 'materialise' and he vomited some bile. His devotees claimed that what used to come out as solid has emerged as a liquid this time! That was the last time he tried this trick.

Likewise, he has been credited with bringing back to life dead people, converting water into petrol, sand into Bhagavdgita, many different types of fruits from a single tree and many such. However, not one of them has been corroborated by independent witnesses or

under experimental conditions. He has been challenged innumerable times by us to let his so called miracles be investigated or perform them under experimental conditions after scrutiny. Abraham Kovoov from Srilanka was one of the first to publicly challenge him. Dr.H.Narasimhaiah, a former vice chancellor of the Bangalore University had constituted a committee for the scientific investigation of so called miracles in the 1970s and had written to him asking for those to be performed under controlled conditions. He had explained that as a physicist he could not believe that something could come from nothing and had requested him to be a subject for an

demonstrations and training thousands on how these tricks are done. We have thrown challenges to any one claiming to have such powers to come forward and perform them under controlled conditions and win huge awards. But so far none has come forward.

His devotees defend him by showing the so called charitable work which he has been doing. They don't realize that the whole thing is a facade behind which a huge empire thrives. This is now said to be in billions and there is a big struggle to seize control over it. On one hand there are his relatives who want to take over that while on the other there is the trust which has

Dr.H.Narasimhaiah, a former vice chancellor of the Bangalore University had constituted a committee for the scientific investigation of so called miracles in the 1970s and had written to him asking for those to be performed under controlled conditions. He had explained that as a physicist he could not believe that something could come from nothing and had requested the godman of Puttaparthi to be a subject for an experiment to verify his so called materialization of things from thin air. He was met at first with silence and later to vicious personal attacks

experiment to verify his so called materialization of things from thin air. He was met at first with silence and later to vicious personal attacks.

Later Premanand took on this so called god man by performing his so called miracles in public and explaining the tricks behind them. He trained thousands of volunteers to perform these and they started doing these all over the country to demonstrate to the common man how they are done. Now, I am continuing this work at the national and international levels giving these

many so called VIPs including retired judges and other bureaucrats. He has also many public figures in the list of his devotees. Now that he is on his death bed these have been threatening to come out into the open and one of reasons why he has been kept away from the public is that all the legalities be done when he is supposed to be alive. If he has not made any will and the whole empire is in his name then his family will inherit it! On the other hand if he has made one bequeathing his property to the Trust, he has to live for a year after making one. One has every

reason to suspect that he has been kept on life support systems to wait for an appropriate time to switch it off. No one is allowed to see him because of this. Occasional reports are put out that he is improving just for public satisfaction. It would be the best if all his properties be taken over by the government and used for the public purpose they are supposedly intended for. The claimants for the assets should not have any objections to that! Anyway, none of it is his personal property. They are all built from the contributions from the public.

By the time this comes into your hands I am sure that things would have reached a stage where state intervention will be needed. What is made from public contributions for supposedly charitable purposes, should be used for that purpose only. His super specialty hospitals, educational institutions and such are all for such purposes and should be put to such uses only. This would prevent any ugly turn of events and will also be a way to satisfy his devotees who are supposed to run into millions.

BS

The cultures of cruelty that are spreading all around us are a part of this Far Right revolutionary offensive because values of democratic, secular civility must be made to crumble from the inside; and that is so because, in the conditions of electoral and parliamentary democracy prevailing in India today, what the Far Right visualizes and prepares for is not a frontal seizure of power but a hurricane from below, carried out by a widespread and pliable mass of the wretched of this earth led by a well-disciplined counter-revolutionary elite.

Aijaz Ahmed

On Communalism and Globalization

– Offensives of the Far Right (2004)

Institution of Engineers Peddles Astrology to Improve Productivity!

Bangalore Skeptic

Institution of Engineers is an august body of engineering professionals in India. It was established way back in the 1920s to cater to the educational and other professional aspirations of engineers. It is claimed to be, according to Wikipedia, “the largest multi-disciplinary engineering professional society in the English speaking world”. It obtained, in 1935, the Royal Charter of Incorporation from King George V “to promote and advance the science, practice and business of engineering”.

In today’s increasingly competitive and globalized scenario, one would expect that such a body of professionals would equip its members with the latest tools in their field by conducting intensive training programmes for their professional advancements. It being a body of highly qualified professionals with scientific and technological background, one would naturally expect that the Institution would be in the forefront of upholding one of the fundamental duties of a citizen of India as enshrined in Article 51 A(h) – Part IV A of the Constitution of India, which states that “it shall be the duty of every citizen of India to develop the scientific temper, humanism, and the spirit of inquiry and reform”.

But such hopes and expectations are seemed to be misplaced. Leave alone upholding scientific temper and spirit of inquiry; the Bangalore Chapter of the institution had the audacity to invite an astrologer to their monthly meeting to give a lecture on the use of astrology to improve

the productivity of their members!

We reproduce an email sent by Mr. PL Rao, a longtime member of Institution of Engineers as well as a familiar face among the rationalist circles in Bangalore (It is noteworthy to mention here that it was at a meeting following a lecture by Prof Narendra Nayak organized by Mr PL Rao in January 2006, the Bangalore Vicharavadi Sangha was formed).

*Dr K Gopalakrishnan
Chairman
Institution of Engineers,
Bangalore Chapter*

In the good olden days of 1950s of less opportunities and more poverty, I was fortunate to have chosen science subjects and studied AMIE and thus achieved the expected goal of my life. Amongst all others, I still cherish this qualification as my most valuable. The curriculum helped to tide over many a career hurdles in areas as productivity / Project management. But today, when I find few in the Karnataka Chapter try to propagate the unproven concepts of ambiguous of astrology (which is termed elsewhere as pseudo science, sham or bogus), a discipline of entirely different breed, and try to propagate it through the Institution platform, I feel utterly dismayed. We have always seen that in its self professed field of fore telling and warning, it has NEVER been successful. Only traits we see of this discipline is vagueness and ambiguity.

Such encouragement of unscientific temper on the members is against the expectation of IEI charter. At this rate, tomorrow a robed monk or Moulvi can teach on Project design and construction using prayer and hunch as tools. If technocrats have no confidence that even in this simple field and they need unscientific help, then the Nation will get ruined.

In the interest of all of us, I request Chairman IE (I) chapter to cancel forthwith the lecture program "Fundamentals of astrology to improve productivity" scheduled on 13th April 2011 at 17 30 hours.

*P L Rao
ME F 012232 / 3
Bangalore
13-04-2011*

Mr. PL Rao narrates, in an email sent to us, what happened at the venue of the lecture on 13th April 2011.

After ascertaining that this E Mail had reached Addressee by 400 PM, I reported at the Meeting venue to see the response. From Rationalists Association, Mr Ballal reported. It turned out that the Program convener is one Mr Balveersena, my earlier acquaintance,

who apologetically told that as all had arrived, it can not be canceled now and again that Chairman will not attend, as busy otherwise. I distributed copies of this email to all those present, including the Speaker and individually briefed each my grievance, before Lecture started.

After lecture started, I moved out and met the Chairman in the Hall. When explained, he expressed full agreement with my view, that he himself is a follower of EVR from South TN. This programme had got fixed up at lower level without serious application of mind. Then Mr. Sena also joined us and in presence of CM explained that as the issue of the day is past, hereafter they will be careful and that I may not pursue this issue further.

Mr. Gopal kriashna proposed that we may put forth our views in the same platform as another lecture. But as I find little audience, I was not encouraged to agree to this.

Let us hope the office bearers of the Institution will be more careful in future while arranging their programmes.

BS

I don't try to imagine a personal God; it suffices to stand in awe at the structure of the world, insofar as it allows our inadequate senses to appreciate it.

Albert Einstein
Quoted by Richard Dawkins
(The God Delusion – 2006)

From the President of FIRA

Narendra Nayak

2nd Programme at Periyar Maniammai University

Following the success of our first training programme for the 1st year students at the Periyar Maniammai University, it was decided to conduct two more programmes to train all the senior students as well. These two programmes were conducted at the same venue from 21st to 23rd March and 24th to 26th March 2011.

The first programme was attended by about 50 students most of whom were boys. The programme was well received and we received a good feedback too! The topics dealt were the same as that of what has been described below in detail during the 2nd training programme.



One evening, during their tea time, we visited the men's hostel and had interaction with some of the residents in their dining hall. Most of the students of this group expressed a desire to work for the movement and some of them were 2nd and 3rd generation rationalists. They were pleased for having gained better knowledge required to defend their convictions and to expose claimants of supernatural powers.

The second training programme commenced on the 24th of March and was a tremendous success. The happening of the 2nd session was very interesting and requires to be elaborated. The group had about 60 girls while the number of boys was only around 20. The introductory session started with a heated discussion on number of topics. On the first day we dealt with a very relevant topic - the role of irrational thinking on treatment of diseases followed by discussions on quackery, the various method of treatment, systems of medicine and 'so called' systems of medicine. We showed them videos on a number of topics including quacks

performing surgery, diagnosing diseases, treating the patients and so on. Few of them believed in homeopathy, ayurveda and so on and these students had to be convinced about the irrationalities in these systems. The same evening we were invited to the ladies' hostel dining hall for interactions followed by a question-answer session.

On the second day of the training programme I mentioned about "spiritualism" and some people took upon a challenge to predict things using their "spiritual" powers. I narrated an incident which happened about 7 years ago - when a science teacher with her students had told me that she could read the number on a sealed currency note by consulting spirits using a planchette. I narrated how she had miserably failed to do so. A girl among the trainees became very upset and told me that I should not talk lightly about such powers. When I retorted as to 'what if?' she said she had the power to predict things after summoning spirits. I asked her why not she demonstrates it in front of the assembled gathering and she agreed to do so.



I took out a 500 rupee currency note from my wallet, put it into an envelope and sealed it. I asked her to sign on the seams so that I could not replace it; few members from the audience were also invited to do the same. After this I put the envelope into my pocket and we dispersed for lunch. When we met at 2 pm after lunch this girl by name Shwetha was not to be seen! I had promised her that in case of her predicting the number correctly, all my property would be handed over to her! I had also asked her in front of the audience as to what she would do if she turned out to be wrong and she replied that she would do anything that I would tell her to do. I doubted if she became upset by this condition but her class mates assured me that she had gone to get the number after summoning the spirits. She appeared in about ten minutes time and told me that she had got the serial number of the sealed currency note by making use of her 'spiritual' power. As per my suggestion, she wrote the number on the board; and we were then photographed standing side-by-side with the number in between us. I informed her that if she was right, it was an event which could make waves all over the world and I would like this to be on record. She was very much pleased with this suggestion. I removed the sealed envelope containing the currency note from my pocket and asked two members of the audience who had signed on it to come and verify their signatures. The envelope was opened and the actual serial number written on the board and lo! None of the digits were tallying! I pointed out this to Shwetha and asked her as to what she had to say for this. She replied that there seemed to be some problem with the spirit that she summoned and perhaps it would not like to answer such frivolous questions. But, she insisted that it works and asked me for another question from the past which she would answer by making someone else summons the spirit. I readily agreed to it on one condition that the question be answered on the spot, without using any other means, in my presence on the dais in five minutes time.

She summoned some of her friends to get her 'spiritual' apparatus, which was a sheet of paper with alphabet and numbers written on it. I asked her to tell me my date, month and year of birth. I insisted that the answer had to be given then and there and told her that I had to lay down this very strict condition as my date of birth could be easily obtained from the internet! She tried very hard to summon the spirits along with her friends but nothing happened! Then I had to ask her to live up to her side of the challenge. She admitted that her 'spiritual' experiments had failed and she was willing to do what I would tell her. I told her that 'all that she had to do was to stop this spiritual nonsense, work for the movement when she had time and hence forward lead a rationalistic life'. She readily agreed to this and this was a very convincing demonstration which had a tremendous impact on the students. In fact on the last day, for the feedback she was a very enthusiastic rationalist, thanked me very much for being patient with her in showing her that her beliefs were wrong. She also pledged to work for the movement to create awareness among her family and friends about rational thinking.

We had one more live demonstration and that was to summon an outsider to the hall and predict their past by my newly discovered 'science' of 'Astro numero palmistry' in which I tell the unsuspecting subject that I have discovered this new science from three decades of research into the topics. This has been tried in many of the training programmes and has always been a hit. We start with the past and then go on to the future in which we predict some unpleasant event and then convince the victim to make some financial commitment for a ritual to ward it off! This worked so well here as well that many of the students were asking me for the magic formulae which I used to calculate the events in the lives of the subject! It was so convincing that none of the subjects were willing to accept that it was all bunkum and many of the trainees were unwilling to believe that there was absolutely no

supernatural explanation for the very accurate predictions about the past of the subject!

In between lectures we had videos and demonstrations of so called 'miracles' and interactions on a number of topics of interest to the participants.

On the last day of the training programme, we had a group discussion in which the participants were divided randomly into groups and interacted on what they were going to do 'to further the movement in their institution and the society'. One of them was elected from among themselves as a group leader and she would read out their conclusions and also answer questions from the audience. During the first training programme, it was insisted that the group leader must be a female, but during the second training programme the girls dominated the proceedings so much that we had to request them to give a chance to the boys!

The first batch discussions were not very long, but during the second batch there was so much heated debate that we spent half-a-day on this. There were wide ranging topics right from how to change the thinking of family members and friends to change thinking in the society. Some of the National Service Scheme volunteers also narrated their experiences - when they had visited the villages for the surveys, they had to put up with the barbs from the people.

There were incidents mentioned in which they had tried to object to the irrational behaviour of their parents and other elders.

Both of the programmes concluded with many of the students claiming that their thinking had changed. Of course there have been exceptions! One of the girls from the first training programme said in her feedback that she was a theist and nothing could change that.

On the whole, the results had been very encouraging and this is for the first time that a university is trying such an experiment with their students on this scale in a very systematic manner. There are further such programmes planned during their vacations to motivate the staff members. Programmes have been planned for the faculty lasting for several days and for the non-teaching staff interactions for a full day. A five-day workshop has been planned for training interested students to develop skills to give demonstrations on miracle exposure.

I have also received information that there have been some lively discussions post-training in the campus and many new members are keen to enlist themselves for it. The membership of the rationalist club has also gone up and they have a monthly meeting in which they have many relevant discussions on topics related to rational thinking.

BS

**There is in every village a torch – the teacher;
and an extinguisher – the clergy man.**

Victor Hugo

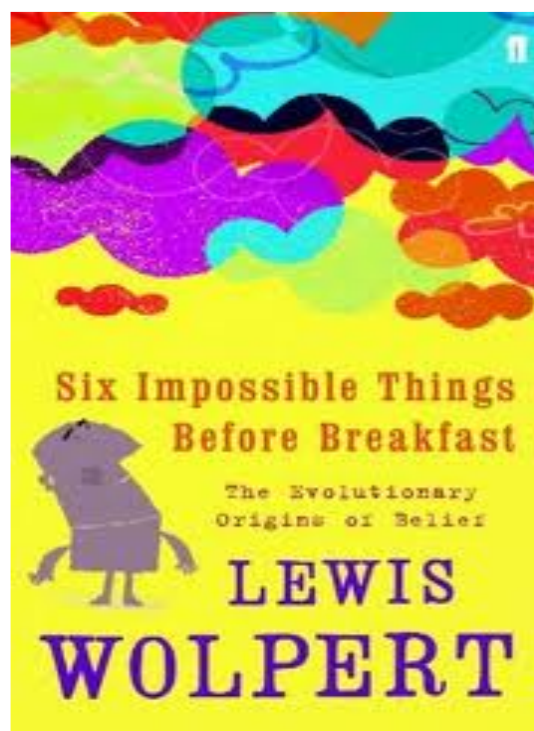
*Quoted by Richard Dawkins
(The God Delusion – 2006)*



Analyzing the Belief System

Prabhakar Nanawaty

Lewis Wolpert, the author of the book *'Six Impossible Things Before Breakfast'*, is a distinguished development biologist and an accomplished broadcaster of BBC TV. As the subtitle of the book - *The Evolutionary Origins of Belief* - suggests, the author sympathetically views the belief systems prevailing in the society and analyses threadbare for their relevance to the contemporary world. The title of the book has been taken from the story of Lewis Carroll's *Through the Looking Glass* in which the characters reveal that they can imagine any impossible thing within a flash. The same corollary has been applied to the people who imagine impossible things like religion, superstitions, paranormal beliefs, questionable healing methods etc.



As the author points out in the introduction, the aim to write the book is to try and understand what determines what people believe about causal events rather than from ethical and moral point of view. According to him the key issue is to determine what distinguishes our thinking and beliefs from other animals and how this might have evolved. In fact the author is clear about his views and emphasizes that he is looking at these things as a trained scientist. He may not be hostile to religion or God. However he does not believe in paranormal phenomena such as

communication with dead, telepathy, mind reading, ghosts, spirits, psi, psycho kinesis, levitation etc; since he finds that the evidence is not just there.

As a thinking animal we are impossible beings since we apply one or the other (mostly wrong!) reasons to the events that occur in daily routines; why the children are late from school, why the car will not start, why the weather is so bad, why we are ill so on and so forth. Sometimes the reasons assigned are sensible and rational but many a times due to our ignorance we

assign wrong reasons and start believing in them. This motive of explanation behind the phenomena affects us and blinds our cognition. In fact author suggests that there must be some module in our brain which is assigned to belief engine. In case we are not in a position to assign logical reasoning, the belief engine takes over and satisfies our curiosity. The basic fault appears to be that the insufficient attention has been given to just what common sense is. We close our eyes to the stark evidence available and imagine impossible.

In relation to the causal events the 'Why' question is raised when the event is abnormal or out of ordinary. In addition to

While discussing the term 'belief', the author finds it very difficult to define. According to him belief sometimes comes close to knowledge for the individual – for those, for example, who have seen ghosts, a belief in their existence becomes knowledge, though to others it is unbelievable. In fact memory can be viewed as a type of belief, not least because it can be unreliable. Indeed memory itself can be shaped by current beliefs. Author then analyses the evolutionary aspects of paranormal beliefs like astrology and witchcraft which vary across cultures and for which evidence is rarely required. Beliefs about health, which are particularly important also vary enormously and are too

The aim of the author is to try and understand what determines what people believe about causal events rather than from ethical and moral point of view. According to him the key issue is to determine what distinguishes our thinking and beliefs from other animals and how this might have evolved.

this people's perceptions about themselves are mostly unreliable. They are due to flattering, over or underestimating and recalling the hearsay. Besides we have our own opinion of risks involved. Though scientifically it is evident that fastening seat belts while driving the car reduce the risks of accidents even then we ignore the warning. Every one knows that passive smoking is the cause of cancer, even then we never protest against the smokers. The author makes us to take notice of causal events, peculiarities exhibited by the people, expert's views etc in the chapter "Everyday" by quoting numerous examples and conclusions drawn.

seldom based on the biological basis of belief and also on evolutionary aspects of human behaviour. While discussing the issues, he also reviews the role of genes in evolution in order to clarify the particular character, including belief. According to him the inability to find causes for important events and situations leads to mental discomfort, even anxiety. So there is a strong tendency to make up a causal story to provide an explanation. He concludes that since the main function of the brain is to control movement and to choose the appropriate movements for survival, it is not unreasonable to suggest that belief arose in relation to tool use and

manufacture, as both require a belief in causal interactions. In fact this appears to be altogether different conclusion since many studies indicate that evolution of human brain is related to social interactions.

As every one knows that the driving force on belief may be due to parental and cultural pressures thrust during the childhood. We may ask the question to what extent are children's beliefs about cause and effect innate and how much due to their experience of the world? After explaining in detail the attitudes and instincts of the babies and grown up children author concludes that the core of a child's development is as important as the drive for sex and food. This drive consumes children in their early years and their exploratory drive can be quite troublesome for parents. In fact causality is a fundamental aspect of human cognition. Most of the time, many causal beliefs come from parents, teachers and friends. In fact this includes the belief in religion and God. The author agrees that over millions of years the genes in the brain together with those in our bodies have made human beings fundamentally different from all other animals. However, according to his pet theory, the tools made the difference. To corroborate this theory he analyses some of the animals like chimpanzees, apes and crows who also use the tools in very primate way. He also investigates whether there is a possibility of belief systems in such animals. The author then concludes that while non-human primates have an understanding of all kinds of quite complex physical and social concepts and can distinguish the animate from inanimate, they do not view the world in terms of the kind of intermediate and often hidden 'forces' - underlying causes, reasons, intentions and explanations - that are so important for human thinking and their beliefs. However we human beings owe a lot to technological skills to primates from whom we are evolved. In fact our technological adaptation has been shaping our evolutionary trajectory in crucial ways for the past several million years. That may

be one of the reasons why author had devoted a full chapter on evolution of tools. He emphasizes that it is not just the shape of hands or fingers that matters but also the ability of the brain to control their complex movements. In addition to handling of complex tools the language also marks human off from other animals.

According to the author the evolution of the skills for tool making and the use of tools together with language opened up a whole new set of manual operations. Humans were now thinking about the causes involved in all sorts of activities; hunting, food gathering, social relationships, illness, probably dreams, and even life and death itself. Causal beliefs are in fact fundamental in nature, since a major feature of belief is that it is used to guide how we behave and so it is at the very core of our existence. While tracing the origin of beliefs, the author thinks that we express beliefs even when, all too often, we do not have the evidence, knowledge or facts to support them. Moreover emotions can undoubtedly influence our beliefs. In addition the distinction between knowledge and belief becomes less clear in relation to memory.

In fact finding explanations for our experiences and conditions that have little relation to what actually happened. It is probably closer to the way we normally think than we may like to believe. There may be a number of neurological illnesses that result in delusions involving false beliefs though memory is not at the core. Drugs, hypnosis, autism etc are also leading to such beliefs.

The author devotes a full chapter to understand the origin and nature of religions and other beliefs which might have given rise to the brain circuits to the false beliefs. In fact a very common association when the word 'belief' is mentioned is religion. For many the two are almost indistinguishable. Religious beliefs are acquired and subsequently modified. While tracing the causes of the

events not understood by human beings easily, the religion seeks supernatural explanations. The author wonders that if religion is in our brains, how is it that so many do without it. He in fact asks what triggers a religious experience. There may be variety of triggers; music, the beauty of nature, children, poetry, or sex. The author quotes many surveys conducted by analysts across the world and finds it difficult to understand adherence to religions and of course God.

While discussing the adaptability of religious beliefs, the author feels that our brain has a natural tendency to find consistent and reasonable explanations for important events like birth, death, illness, disasters etc. The religious beliefs might

illness or how to treat it. There will always be beliefs as to why someone got ill and thus better. Illness causes severe stress, pain and even death and it is also a serious evolutionary disadvantage to be ill. That may be the reason that beliefs about health and illness are so often linked to religious beliefs. Several Gods were thought to have particular healing power and diseases could be caused by evil spirits. It is only Greeks who for the first time took a completely different approach albeit scientific one. In spite of the advent in modern medicine based on evidence, still religious beliefs play a greater role in the minds of the people who assume that gods exert powerful forces. However belief in a treatment can itself may have important consequences which are popularly known

As one of the reviewers has put it 'Wolpert's book is a powerful argument for the superiority of science over other belief systems. The great advantage of science is that its theories are checked against observable reality, and are dropped or changed if they don't fit. When religions change, they tend to do so under pressure from science Of course, scientists are often as stubborn in their beliefs as anyone else, but eventually false beliefs must give way.'

have provided instant answers to satisfy the curiosity. There may be a possibility that religious beliefs thus partly genetically determined. Secondly there is a tight linkage between genetic evolution and cultural history and gene-culture evolution has created many human societies with religious beliefs. In this process, religious experiences may have become linked to paranormal beliefs, delusions and hallucinations.

The author finds that health is one more area where belief plays a measure role. It is intolerable not to know the cause of an

as Placebo.

A moral and ethical belief is one more area in which author comments extensively. The strong belief about organic farming, nuclear power, genetic modification of human and plants, the right of embryo, stem cell research, capital punishment, racism etc, are the issues on which the moral and ethical stand is taken by many believers without going into the depth of the issues. The author quotes many examples of moral and ethical beliefs and has tried to explain how these might have been evolved. Surprisingly the belief in

God appears to be one of the reasons for such impossible ideas.

The author at the end takes the issue of scientific beliefs. Belief in a scientific idea by scientists may not be free of emotion or prejudice. Scientists can be faulty with their own belief as well as those of other scientists until evidence is persuasive. Science is basically in conflict with religion, for there is no scientific evidence for any gods or their supposed powers and special forces. The author concludes that science provides by far the most reliable method for determining whether one's beliefs are valid. It may be difficult as it often goes against common sense.

As one of the reviewers has put it 'Wolpert's book is a powerful argument for the superiority of science over other belief systems. The great advantage of science is that its theories are checked against observable reality, and are dropped or changed if they don't fit. When religions change, they tend to do so under pressure from science, as in the eventual acceptance by Pope John Paul II that evolution is more

than a hypothesis, or the Vatican's apology for its treatment of Galileo. Of course, scientists are often as stubborn in their beliefs as anyone else, but eventually false beliefs must give way.'

Wolpert writes with clarity and forthrightness, and with an absence of mumbo-jumbo.

***Six Impossible Things Before Breakfast
- The Evolutionary Origin of Belief***

**Lewis Wolpert
Faber and Faber Limited (2006)
pp 243**

BS

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**Science is far from a perfect instrument of knowledge.
It's just the best we have. In this respect, as in many
other, it's like democracy. Science by itself cannot
advocate courses of human action, but it can certainly
illuminate the possible consequences of alternative
courses of action.**

**Carl Sagan
*The Demon-Haunted World (1996)***

Skeptic News

Bangalore Vicharavadi Sangha (Bangalore Rationalist Association)

Bangalore Vicharavadi Sangha conducts monthly lectures and discussions on various topics. Those who are interested in attending the programmes conducted by the association may contact:

Dr. M.N.Keshava Rao (Phone: 26690269. Email: keshava_rao@hotmail.com)

A.S.Nataraj (Phone: 26696553. Email: rajsri@bgl.vsnl.net.in)

District Level meetings of Karnataka State Federation of Rationalist Associations are being convened across the state. Those who would like to be part of the organization are requested to contact the State

Convener of KSFRA

BVV Subba Rao. Phone: 09886679088.

Email: babukadur44@gmail.com

Tools for Skeptical Thinking

Carl Sagan

Carl Sagan's famous essay, *The Fine Art of Baloney Detection*, more or less encapsulates the basic tenets of Skeptical Thinking. The present article is an extract from the essay.

The full text can be found in one of Sagan's best-sellers *The Demonhaunted World: Science as a Candle in the Dark*.

- Wherever possible there must be independent confirmation of the "facts."

- Encourage substantive debate on the evidence by knowledgeable proponents of all points of view.

- Arguments from authority carry little weight—"authorities" have made mistakes in the past. They will do so again in the future. Perhaps a better way to say it is that in science there are no authorities; at most, there are experts.

- Spin more than one hypothesis. If there's something to be explained, think of all the different ways in which it could be explained. Then think of tests by which you might systematically disprove each of the alternatives. What survives, the hypothesis that resists disproof in this Darwinian selection among "multiple working hypotheses," has a much better chance of being the right answer than if you had simply run with the first idea that caught your fancy.

- Try not to get overly attached to a hypothesis just because it's yours. It's only a way station in the pursuit of knowledge. Ask yourself why you like the idea. Compare it fairly with the alternatives. See if you can find reasons for rejecting it. If you don't, others will.

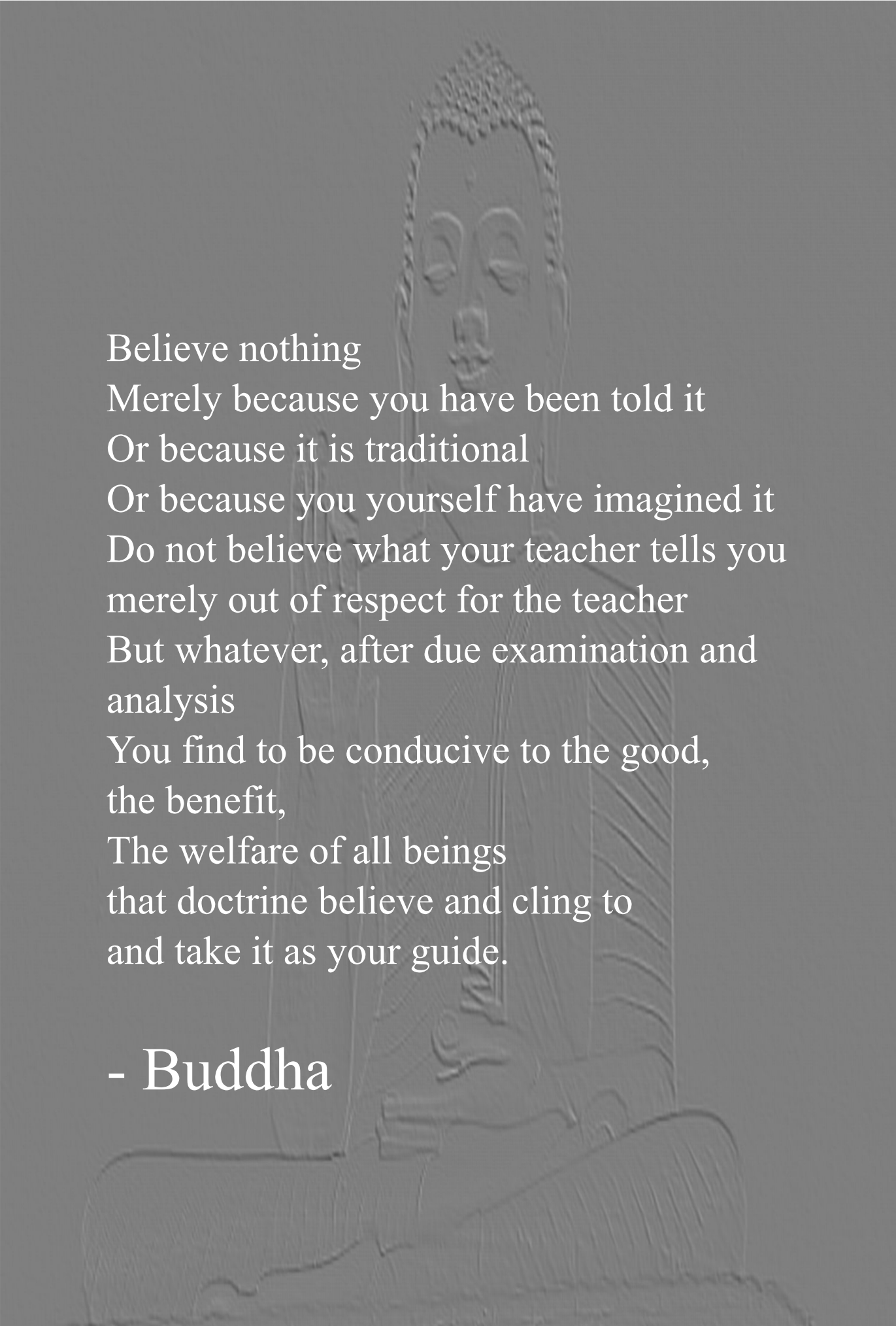


- Quantify. If whatever it is you're explaining has some measure, some numerical quantity attached to it, you'll be much better able to discriminate among competing hypotheses. What is vague and qualitative is open to many explanations. Of course there are truths to be sought in the many qualitative issues we are obliged to confront, but finding them is more challenging.

- If there's a chain of argument, every link in the chain must work (including the premise) —not just most of them.

- Occam's Razor. This convenient rule-of-thumb urges us when faced with two hypotheses that explain the data equally well to choose the simpler.

- Always ask whether the hypothesis can be, at least in principle, falsified. Propositions that are untestable, unfalsifiable are not worth much. You must be able to check assertions out. Inveterate skeptics must be given the chance to follow your reasoning, to duplicate your experiments and see if they get the same result.



Believe nothing
Merely because you have been told it
Or because it is traditional
Or because you yourself have imagined it
Do not believe what your teacher tells you
merely out of respect for the teacher
But whatever, after due examination and
analysis
You find to be conducive to the good,
the benefit,
The welfare of all beings
that doctrine believe and cling to
and take it as your guide.

- Buddha