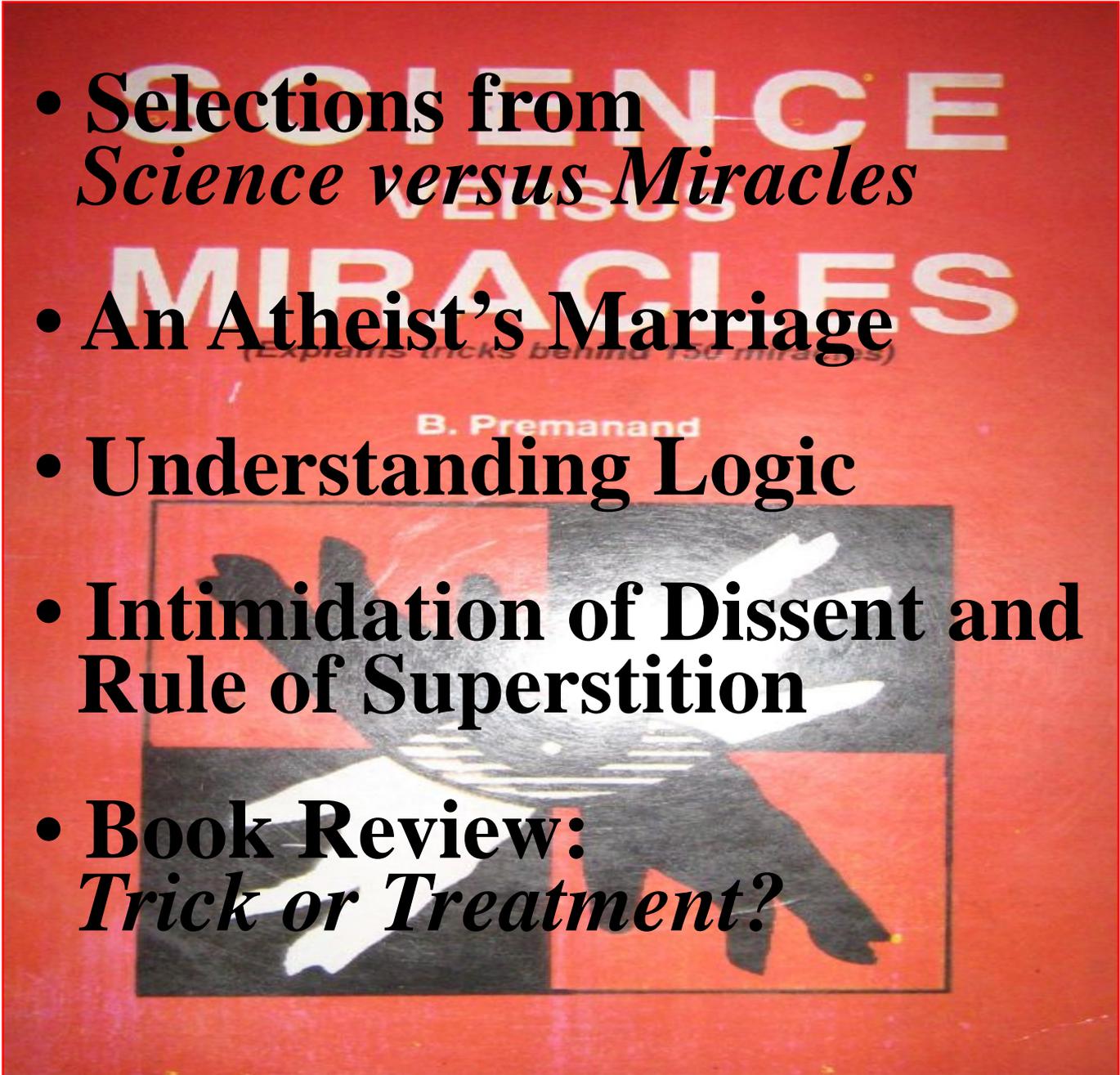


INDIAN SKEPTIC

No. 01/11

November 2010

- 
- **Selections from**
Science versus Miracles
 - **An Atheist's Marriage**
(Explains tricks behind 150 miracles)
 - **Understanding Logic**
 - **Intimidation of Dissent and
Rule of Superstition**
 - **Book Review:**
Trick or Treatment?

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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)*

Selections from Science versus Miracles

B Premanand



Page 04

An Atheist's Marriage

Narendra Nayak



Page 06

Atheist Eve

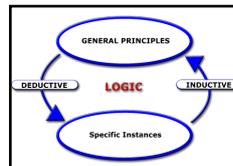
Tracie Harris



Page 09

Understanding Logic

Ajita Kamal



Page 10

From the President of FIRA

Narendra Nayak

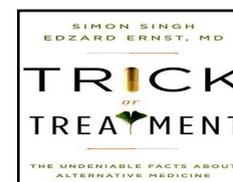


Page 15

Book Review:

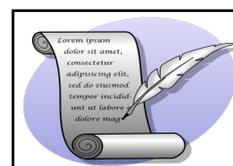
Trick or Treatment

Prabhakar Nanawaty



Page 18

Letters



Page 23

Selections from *Science versus Miracles*

Creating *Vibhuti* (Holy Ash) - Sai Baba Style

B Premanand

Hand Movements Conceals Finger Movements

A highly influential godman calling himself as “Satya Sai Baba” has followers among the elite and the influential, including those in the bureaucracy, law enforcement departments, revenue and customs departments, judiciary, and the state and central ministries. He claims that he can create anything from nothing, transform things from one to another, cure incurable diseases, resurrect the dead, and that he possesses all powers so far unimagined by human beings. He claims them to be his inborn nature or power and describe himself as a personification of all the gods put together – “*Sarva Daivatva Swaroop*”.

Satya Sai Baba claims he can WILL things into existence. As for creating *vibhuti* (holy ash) he asks: “Can *vibhuti*, in powder form, be held in a turned down palm waved in circles”.

Isn't this proof enough that he really creates it? No. A magician also produces holy ash the same way this self-proclaimed avatar produces it. He moves his hand, palm down, circling two or three times, and in a flash holy ash appears to drop from his finger tips.



Effect: Creating Holy Ash – Sai Baba Style

Props: Perfumed *Vibhuti*, starch water (strained water from cooked rice), a plate to make pellets with *vibhuti*

Method: Mix the perfumed ash in starch water and make small pellets and dry in the sun light.

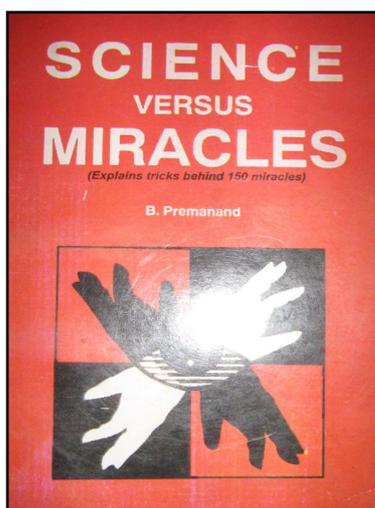
This dried pellet is to be hidden between the thumb and the index finger. (*The pellet can also be kept between the middle and index fingers as given in the photographs – editor*) One should learn to keep the hand relaxed without keeping the fingers stiff. (One must also practice using hands and fingers to say “*namaste*”, shake hands, drink coffee and write while keeping the pellet hidden from sight.)

While circling the hand, palm down, in a swift movement bring down the pellet to the finger tips, crush it to smooth powder, and let it fall into the hands of the audience.

Now, if the godman or the ‘avatar’ is not using the same sleight of hand method of the magician, why does he refuse investigation? Should he not prove beyond doubt that his method is not a sleight of hand trick? What is he afraid of? Exposure? Only when it is proved, using methods of science, under fraud-proof conditions, that his powers are beyond science or human comprehension, can the godman’s claims be accepted.

BS

(Images : *Guru Busters*)



An Atheist's Marriage

Narendra Nayak

An atheist was asked a question in Bihar- do you believe in the power of mantras? He said no. The questioner continued- In that case why were mantras chanted at your marriage? The atheist countered- who told you that mantras were chanted during my marriage? The questioner was surprised, he said were they not. The atheist said no, not at all. This question proved that the person who queried had absolutely no knowledge of the world and that no marriage could be performed without the chanting of mantras! Since the atheist had a Hindu sounding name or even if he were to belong to some other religion it would be that rituals pertaining to that would be conducted and all of them would involve some incantation to a deity!

That shook the atheist's memory and took him back to the days thirty years back when he tried to get married. Being too busy earning a living and paying back the loans taken to educate himself, he had had no time for any romance or even for mixing with the opposite gender. He had routine starting from 7 am and ending at 9 pm. When he indicated that he would get married to only some one who would be ready for a marriage without any religious ceremony, matching of horoscopes or any other superstitious practice, his friends, relatives and colleagues laughed at him. They told him that he would remain a bachelor for life! So, he inserted an ad in the newspaper which had the largest circulation- though it had no editorial! The ad ran as follows: 'a rationalist by conviction born in a family of XYZ community, aged 28 years, post graduate, drawing a four figure salary desires a



matrimonial relationship with a like minded partner with a simple marriage with no religious ceremony or superstitious rituals of any sort.' he had given a post box number and not made any mention of the institution where he was employed or other details so that it could not be traced back to him! But, a good number of his friends called him and told him that they had noticed his ad! When queried they said who else could be that but you? One of his friends told him- have it repeated each year so that you could save money on typesetting. The only change was to add an year to the age he said! He also joked that he could have probably have had to run it for half century or so till he found a suitable bride!

There were a good number of replies none which could be said to be suitable for him. In fact there were a good number of gold diggers who had read in between the lines and had also decided that the superstition free included free of dowry and other expenses connected with the marriage. There were some who said that there was something wrong with the man that made his offer to get married without any dowry! Many of his friends who knew that he was

a very eligible match tried to persuade him to relax his terms and conditions so that they could get him married off to some one of their choice. They told him that they too knew that all these things were nonsense but just put up with them for a day and there after a normal atheistic life. But, the atheist was adamant- he said no; I want to live life on my own terms without any compromises whatsoever. In fact the atheist was quite proud of his life that he had not taken an active part in any religious ritual. None of the usual ceremonies had been performed on him and by the time he was to be initiated into Brahmanism by a thread

meeting between them was arranged. To cut the long story short, they decided to get married after discussing various issues. It turned out that they had a lot in common and hence could get along with each other.

So, they submitted an application under the Special marriages act at the registrar's office and decided to have the marriage exactly 30 days after the date of submission. The registrar of marriages was brought to the residence of the bride at Rahukalam soon after his arrival he wrote in his register, registration of marriage under the Hindu marriage act. The atheist

The so called hor(ror)scopes are an excuse for the business transactions called marriages that go on in the community. These also involve huge wastages in terms of money and other resources. The economically backward sections have to raise loans to perform the obligations that go in the name of marriage rituals. It is always the priestly class that benefits in the name of such things. What should be a social sacrament has become a commercial enterprise.

ceremony he had become an atheist and refused that.

So, his quest went on until one day when he was brought a proposal by his friend who was a pathologist. He told him that there was a proposal of a girl with a post graduate degree in psychiatric social work, a very intelligent and good looking girl who could be good match for him. The atheist replied that he would take his decision after meeting the girl and that would be subject to the condition that she and/or her parents would be agreeable to these conditions that he had laid down about the superstitious rituals etc. It turned out that they were agreeable and hence the

objected he said- sorry, no registration of marriage under special marriages act. The registrar replied- what is your problem both of you are Hindus. The atheist replied- no I am not. Then came the registration procedure- the registrar said hold up your right hand and say that I accept so and so as my legally wedded wife. The bridegroom said no. The registrar was surprised and queried what's the matter. The bridegroom said I am an atheist and am not going to swear by god. He said OK, just hold up your right hand and say that I accept so and so as my wife no need for god. So, that was the whole of the marriage with no ceremony, no garland, no mantras and no tali or any religious symbolism. The same

evening they had a small reception for their close friends, relatives and colleagues and there ended the matter of conducting a marriage without any rituals, ceremonies or superstitions!

Why should one be free from these things? One can see that the so called hor(ror)scopes are an excuse for the business transactions called marriages that go on in the community. These also involve huge wastages in terms of money and other resources. The economically backward sections have to raise loans to perform the obligations that go in the name of marriage rituals. It is always the priestly class that benefits in the name of such things. What should be a social sacrament has become a commercial enterprise. The atheist wanted to express his protest against these things and hence decided that he could show that such could be done. He also wanted to demonstrate that marriages do not need any religious sanction and wanted others to learn from that. One of the funniest incidents was that on the very next day of the marriage when the newly wedded couple was in the natal home of the bride the family priest turned up ostensibly to 'see' the new bride groom but actually to collect the fee denied to him because of the non religious marriage! He calls the bridegroom to one side and asks him in a low voice, my dear man do you know any good match for my daughter, even if it is some one like you, it is all right!

To what extent he succeeded is to be seen. But, his two brothers followed in his footsteps with simple, non religious marriages. But, many years later when the organisation he headed was celebrating its silver jubilee he lectured on how the leaders

of the movement should lead a life free of any superstitious practices. In a few days there was an attack on him stating that he was a hypocrite preaching to others but himself following the very same superstitious practices he was asking others to give up. It was specifically mentioned that his marriage to ABC would have been surely with all religious rituals! What right has such a person to ask others to give up the things which the so called atheist himself followed?-was the most important question raised. The atheist replied by getting published a copy of his marriage certificate which shut the mouth of the critic and there was not such attack afterwards. This emphasizes the importance of the leaders of the movement to do what they ask others to follow.

The couple has helped quite a lot of younger people to get married against the wishes of their parents/relatives and some times the society as a whole. But, are still waiting for the social revolution to come by which young people desirous of pair bonding take their own decisions, treat the whole matter as a social celebration and not as a religious matter with superstitious practices and rituals. For those who have been not able to guess who is the atheist mentioned here, the photograph shows yours truly thirty years ago signing the register in the presence of the Registrar of marriages of Mangalore City.

Narendra Nayak was Professor of Biochemistry at Kasturba Medical College, Mangalore. He is the President of **Federation of Indian Rationalist Associations**

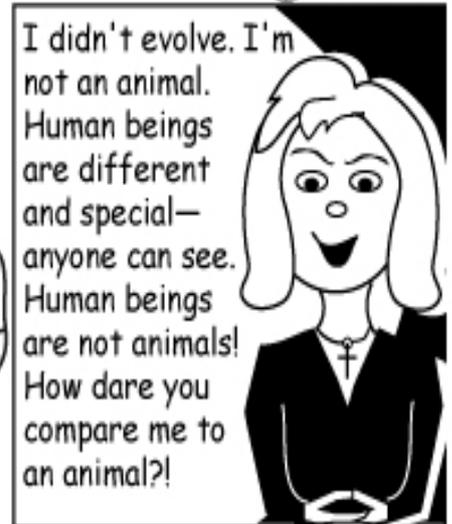
The future is still open. It is still to be lived.

Samir Amin
Eurocentrism (2008)

Gay Marriage

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ATHEIST EVE



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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Understanding Logic

Philosophy With Selvi - Part II

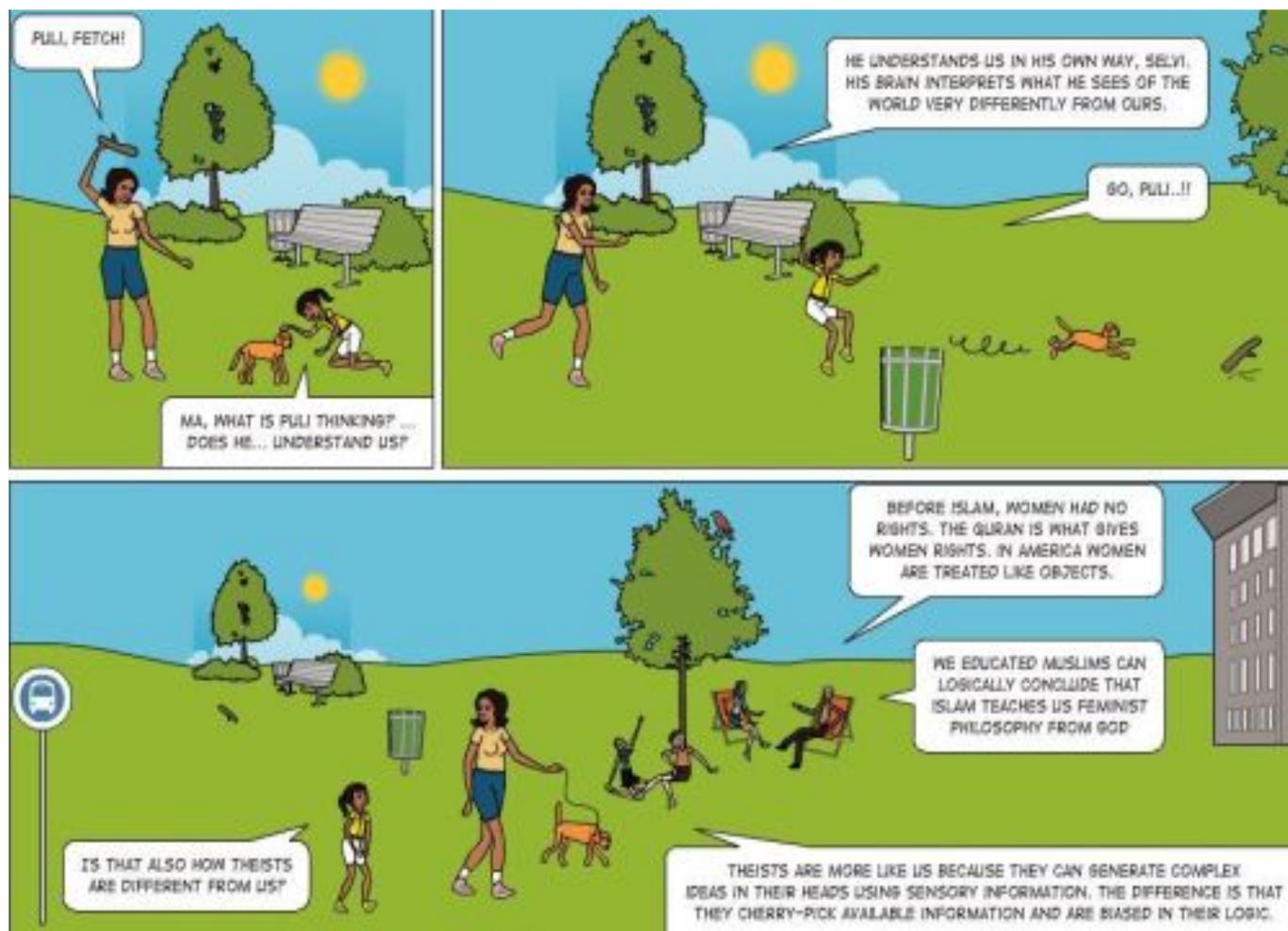
Ajita Kamal

When Saturday arrived, mother and daughter took Puli to the park and tossed around a stick for him to fetch. Selvi loved the weekends because she got to spend more time playing with Puli and talking to Sandanam. Today, Selvi was her usual inquisitive self and the fresh air provoked deep thoughts.

“Ma”, she said as she watched Puli dash after the stick. “You told me the other day about justification of knowledge. Tell me more about how that works. “

Sandanam, was not entirely unprepared since she had spent the past few nights thinking about how she should deal with her daughter’s intense curiosity. But there was no simple formula. Perhaps Selvi needed formal training... someone who could teach her properly what she wanted to understand...

“OK, let’s start at the beginning” Sandanam began. “Justification of knowledge involves making arguments and dismissing or accepting them. The formal study of this process is called Logic”.



“Is common-sense the same thing as logic?”

“Depending on the definition, common-sense can be described during conversation as a type of logic. But it is not a formal system of logic. It is not comprised of a formal set of rules for evaluating arguments.”

Puli was racing back with the stick in his mouth. On reaching the two women he

He dug in and would not let Selvi pry it from his mouth. An impromptu game of tug-o-war ensued. Selvi yelled at Puli to let go, which he did promptly, sending her somersaulting backwards on the grass. Puli came over immediately and licked Selvi’s face as she sat up. The look of surprise on her face turned to amusement. When Puli saw Selvi smile he jumped back, tail wagging, concern for Selvi abated and his undivided attention directed once again at the inexplicably fascinating object Selvi

There are three classical philosophical traditions of formal logic- the Greek, the Chinese and the Indian traditions.

Different schools of logic approached inference differently, although they had many core ideas in common. In the Greek tradition, induction and deduction were historically the most debated modes of inference. In India, Nyaya and later schools incorporated a mixed induction-deduction approach, along with other modes of inference such as analogy. The Chinese Logicians were more keen on using analogy than induction-deduction.

spun around them and circled back with Selvi laughing wildly, chasing after him.

Sandanam resumed her mental monologue. She’s just a little girl, she thought. Shouldn’t Selvi be worrying about things girls her age are concerned about?... But then again, why should she?.. Indeed, why should any girl only care about clothes, or movies ...

Puli let Selvi catch up with him and grab hold of one end of the stick around which he still had his jaws clamped firmly shut.

was holding in front of him. Selvi stood up on her feet, wound back, and threw the stick as far as she could. Then she turned back to her mother with an expression that said “Go on, then!”

Sandanam had made up her mind. She was going to present Selvi with a historical account of logic. She began to talk.

“There are three classical philosophical traditions of formal logic- the Greek, the Chinese and the Indian traditions. The

Greek tradition influenced the thinkers of the enlightenment, which led to the development of the modern scientific tradition.”

She paused. Selvi was looking at the ground, standing with her weight almost all on her left foot. Sandanam knew a question was on its way, but she pressed on.

*The study of logic in India began at about the same time as the Greeks in Europe. Broadly speaking, there were 5 schools of Indian logical thinking, each influencing the others over the centuries. (1) The oldest school of Indian logic dealt with **Grammar**, which influenced all of Indian philosophy because of the predominance of the Sanskrit language in philosophical discussion in ancient India. One of the earliest influential Sanskrit grammarians was Panini who lived in the 4th century BCE. (2) **Vaisesika** was a form of natural philosophy that viewed the world as composed of atoms. It is considered one of the six orthodox schools in the Astika tradition of Indian philosophy. Its proponents built a system of categories, and devised syllogism and methods of inference, to inform their epistemology. These syllogisms and methods of inference were developed further within the subsequent schools of Indian logic. The logical categories created by the proponents of the Vaisesika school of thought formed the foundations of the old Nyaya school of logic. (3) Formally recognized as the orthodox logical tradition in Astika philosophy, **old Nyaya** is often simply referred to as Vedic logic. Proponents of the old Nyaya school of logic assimilated elements of Vaisesika logic and further developed formal systematic analyses of perception and inference. However, old Nyaya and Vaisesika were doomed from the start because of their deference to Vedic authority as infallible truth. Many proponents of the old Nyaya school wasted their efforts developing complicated but flawed arguments for the existence of god. (4) **Buddhist logic** was partly a reaction*

*against the old Nyaya school. In Buddhist logic we begin to see a formal logic that is distinct from epistemological and ontological concerns, and almost completely dependent on syllogism and inference. Buddhist logic strongly influenced Chinese logic. (5) **Navya-Nyaya** (New Nyaya) was the final phase of classical Indian logic. It began in the 13th century fueled by the work of Gangesopadhyaya. It further refined concepts from the old Nyaya tradition. The Navya-Nyaya school has produced many thinkers over the last few centuries and their influence is felt to the present day.*

*The Chinese tradition of logic was started by a contemporary of Confucius (6th century BCE) called **Mozi**. The **Mohist** school, as it was called, approached inference with a preference for analogy rather than deduction or induction. A separate school known as the **Logicians** were the intellectual descendants of the Mohists during the oppressive Warring States Period in Chinese history. After the Mohist school fell out of favor following the Qin dynasty, Buddhist philosophy introduced from India became highly influential. Buddhist philosophy was responsible for reviving the logical tradition in China.*

*In the Greek tradition, although there was little formal logic before Aristotle in the 3rd century BCE, there existed a great many philosophers who were involved in logical study of the world. The Greeks were the first to use **geometry**, starting with Pythagoras in the 6th century BCE. Later philosophers like Zeno of Elea and Euclid started what is known as the **dialectic tradition** in philosophy, which involved resolving arguments through discussion governed by rules of reasoning. These philosophers, many of whom were contemporaries of Plato, established what is known as the **Stoic tradition** in Greek logic, which contributed many important ideas to the development of the Western tradition of logic. Plato laid the groundwork for **Aristotle**, who established the most*

*comprehensive system of formal logic in the Greek tradition. In fact, Aristotle is known as the founder of formal logic in the Western tradition. His work on categories and syllogism had a major impact on Western philosophy, and continued to be critiqued and further developed throughout the Roman, Christian and Islamic periods. The influence of Aristotelian ideas in Europe and the Middle East contributed to the development of **modern science**, as 15th and 16th century enlightenment philosophers, from Francis Bacon to Descartes and Kant, developed the foundations of scientific philosophy through the debate between, and subsequent synthesis of, the schools of **rationalist** and **empiricist** logic.*

“There are many commonalities between the Eastern and Western schools of logic, such as when dealing with the sources of knowledge, known as ‘Pramanas’ in Indian logic.”

Selvi was at bursting point. But she tempered her eagerness and simply asked “OK, so what are these sources of knowledge?”

Sandanam smiled. She sensed her daughter was filing away her questions for later.

“Most logic traditions agree on two very general sources of knowledge (or pramanas)- perception and inference. Do you know what perception is?”

“Yes. Seeing or hearing something..right?”

“Right. It’s the process of collecting information about the world using our sense organs”.

“OK. What is inference?”

“Inference is the process of following logical arguments and drawing logical conclusions. We all make inferences all the time. As an example consider these statements:

- *When there is smoke, there is fire.*
- *There is smoke now.*
- *There is fire now.*

Using premises and observations we infer logical conclusions. The above statements follow from each other and together form what is known as a ‘syllogism’.”

Selvi was beginning to understand what logic really meant, but there were more questions now than before. She looked at Puli who had made friends with a toddler playing over by the trees. At that moment Puli turned his head to look at her. He stopped prancing around when their eyes met.

Puli stood there, head turned to the side looking at Selvi in the distance. He saw her turn back to her mom, deep in conversation. The toddler let out a squeal and charged him, causing Puli to break pose and jump away, playfully daring the kid to come chasing after him.

“So, inference is important in all schools of logic” Selvi asked.

“Yes. Inference is an essential aspect of all logic systems. In the Indian tradition it was known as ‘anum na’.”

“Are the different types of inferences also found in different schools of logic?”

Sandanam paused for a bit. There was no avoiding it now.

“Different schools of logic approached inference differently, although they had many core ideas in common. In the Greek tradition, induction and deduction were historically the most debated modes of inference. In India, Nyaya and later schools incorporated a mixed induction-deduction approach, along with other modes of inference such as analogy. The Chinese Logicians were more keen on using analogy than induction-deduction. Today we recognize many types of inferential logic.

“What type of inference is the example of fire and smoke that you used?” Consider this syllogism:

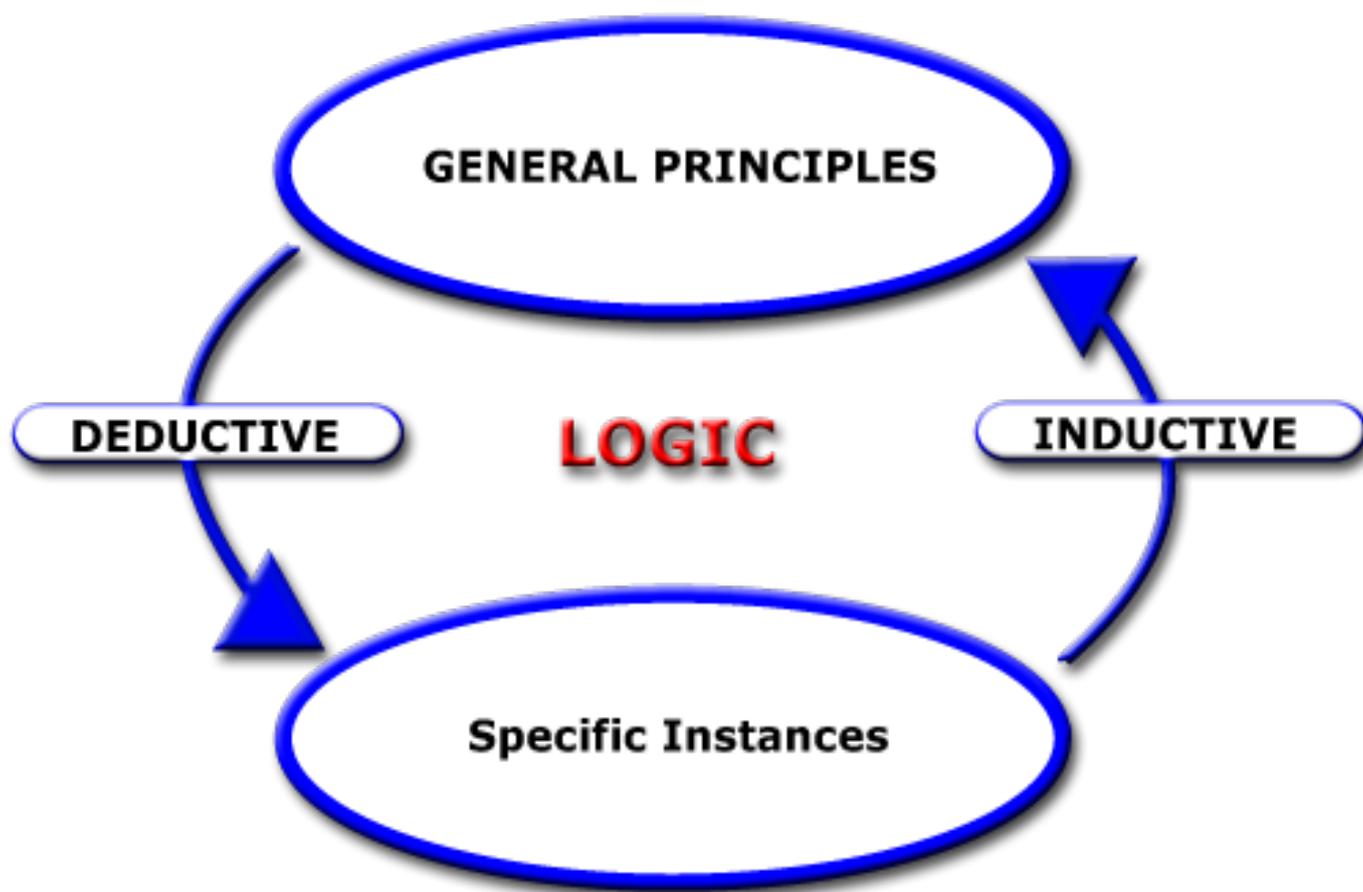
- A dog is chasing a rabbit.
- All dogs chase rabbits.

“Deduction. In this method of inference you take general principles as your premises and infer specific conclusions. That is, you go from the general to the specific. Give me an example of a general statement that you believe is true in principle.”

Selvi thought for a moment and said “Crows are black”.

“Good. Now if I told you that there are

Here we go from a specific observation to a general principle. This is the general form of induction. Both induction and deduction are essential inferential techniques in science. Philosophers often discuss each type separately because each needs to be internally consistent, but in practice both types of logical inference are used by us to form coherent ideas about the world.”



three crows on that tree, what can you tell me about them?”

“Those three crows are black?”

“That, Selvi, is deductive logic! All logic in pure mathematics is deductive logic. Another important type of logic, inductive logic, is the opposite of deductive logic. In inductive logic, you go from specific observations to general principles.

Fun Fact: In formal logic an inference might be considered valid or invalid. What constitutes a valid inference is determined by the rules of logic. An invalid inference is called a fallacy.

Selvi seemed to be deep in thought. Puli was back at her side now, and she was stroking his back with a far-away look in her eyes.

Sandanam knew exactly how to lead Selvi around the road-block.

“Imagine you’re a police officer and you’re trying to solve a crime, say, a murder. What type of logical inference would you use?” she asked.

There was a moment of silence followed by a quick intake of breath.

“Both inductive and deductive logical inferences” said Selvi looking up triumphantly.

“Exactly”, said Sandanam. She grabbed Puli’s collar and slipped the leash back on. The dog looked down at the ground and his tail went limp. But when Selvi said “We’re going home, boy!”, her enthusiasm prompted him to look up at her with his heavy eyes and give his tail a little wag.

Sandanam picked up where she had left off. “There are also many newer forms of logic, some of which derive from mathematical logic and computational logic. These include interdependence-friendly logic, multimodal logic, game-theoretic semantics and linear logic. Besides, modern science has transcended and re-defined many aspects of traditional logic, and helped create new logically coherent systems.”

“Is science also a philosophy?”

Sandanam looked at her daughter and smiled.

“Science is a methodical practice born out of philosophy. Indeed, some of Aristotle’s ideas from over two millennia ago still inform the scientific method! But science in turn also informs philosophy.

“The foundational ideas behind science have evolved over the years. A good method for studying the history of the philosophy of science is to study the debates between the proponents of two general types of justifications: Rational justifications and Empirical justifications. So can you guess

which of these two types of justifications are involved in the justification of science?”

Selvi looked up at mother quizzically, then her face lit up. They were both smiling as they said in unison,

“Both, rational and empirical justifications!”.

Sandanam and her daughter held eye contact for a moment longer and then simultaneously burst out laughing, with Puli joining in braying excitedly.

On the walk back from the park Sandanam made a mental note to design some special experiments for Selvi. Also, she needed a book...an instruction manual on how to raise an extremely inquisitive teenager. This conversation had brought them to science’s doorstep, and her little girl was ready to walk right in.

The sun was going down now and Selvi’s attention seemed to have moved on to other things. It stayed on those other things all the way home.

The phone was ringing as they walked in the door. Selvi ran and grabbed it, saw the number on the caller ID, exclaimed “its for me!”, ran up into her room, and shut the door as her father yelled after her from the living room warning her not to stay on the line for hours.

“Well, at least this is normal”, Sandanam reflected as she sat down at the computer and began her search.

BS

*Ajita Kamal is the founder of the humanist/rationalist website www.nirmukta.com, where this essay first appeared. The first part of this series was published in the June 2010 issue of *Indian Skeptic**

From the President of FIRA

Narendra Nayak

Intimidation of Dissent and Rule of Superstition

The religious fundamentalists seem to have held the civil society to ransom and most of the so called intellectuals remain silent about it. The grandson of a fundamentalist, who claims he is opposed to dynastic rule, enters 'public' life by getting a novel (*Such a Long Journey*) removed from University Syllabus published nearly two decades back and has been a text book for ten years at the Mumbai University and crow's about it as a great achievement! The Bajarangis threaten to teach a lesson to Arundathi Roy for expressing her views about the Kashmir issue. A section of the society seems to think that the whole world should say only what they want to hear.

It is that the new generation of the saffron gang that has totally forgotten what happened during the infamous days of the emergency declared by Indira Gandhi. At that time they had been at the receiving end of intolerance and had been supported by the liberal thinkers. I also remember those times when all the opponents of this type of oppression were together in underground movements against the dictatorial policies of the ruling party. The wheel has now taken a full turn and the so called supporters of democratic values have now become intolerant of all dissent. It would be interesting for the leaders of the saffron gang to remember those days when they were imprisoned by Indira Gandhi for opposing her. It was her way of dealing with dissent. I can also recall that



many of this gang had submitted apologies to come out of prison. But, once the emergency was lifted and Indira Gandhi was soundly defeated at the hustings, they started infiltrating the body politic as well as the government service. Today they have got at their beck and call a huge body of these civil servants ready to do their bidding. This systematic infiltration has paid dividends today by creating a huge vote bank of communalised middle class ready to carry out their agenda at any cost.

In Karnataka the public life is sinking to unimaginable depths. On one hand the activities of the moral police and the enforcers of the agenda of the

communalists are going on unchecked. Communal elements of either side are attacking innocent couples of the opposite sex for interacting with each other and it has come to the extent of assaulting young men just for waving or greeting their acquaintances belonging to another community. The police are mute spectators or many times active participants in such acts. It is deplorable that the guardians of law and order support such anti social elements than take action on them. The communalisation of the public domain has increased so much that women and children have also started taking part in such activities. This is probably due to the mindset of the political masters ruling the state. I am using the term 'master' in a deliberate sense that in our country once a party comes to 'power' they consider themselves as the lords and masters of all they survey. The government lead by Yeddiyurappa seems to be the worst of the lot so far, but we have been always saying that of successive governments!

In the meanwhile the activities of the Bharthiya Janatha Party to cling to power at all costs has resulted that corruption has sunk to new lows (or rather risen to new heights!) the reliance on superstitions has also broken all records. The Vidhan Soudha or the seat of power of the state govt. has been the scene of various activities related to black magic and protection from the same. If some could throw things connected with such rituals in a heavily guarded place without the police coming to know of it, one has to wonder how a terrorist could not gain access to the place to throw a bomb or something like that! It is obvious that the police are either incompetent or are showing a blind eye to the antics of their present, past or future political masters! While millions of rupees were offered as bribes to the Members of the legislative assembly too switch parties, probably an equal amount was spent on mumbo-jumbo for attaining/holding on to power. All this was for a govt., the first Bharathiya Janatha Party lead one in the south to win the vote of confidence on one

hand, while on the other an equal number of interested parties trying to pull it down and come to power.

While Yeddiyurappa and company managed to win that by a show of skullduggery by disqualifying some of the members, those who wanted to pull it down protested at the 'injustice' and disregard of norms. While the former 'celebrated' his victory by going on a tour of temples all over South India and thanking the gods, the latter sulked and visited their shamans for performing more rituals to bring down the govt.! The citizens have to pay for activities of both parties directly or indirectly! Those in power have been blatantly misusing public money while the latter will do so if they manage to gain power! In the meanwhile a student body has taken upon itself the task of deciding what the teachers must do and say even in public. Their target is an unfortunate lecturer whose name is Pattabhiram Somayaji whose middle name seems to be trouble. All the time he has been the whipping boy of the saffronites, since they are unable to do anything about others in his organization, called as Komu Sauharda Vedike, that is, an organization to bring about good relationships between various religious groups. But, it has always managed to do other wise! Most of the times they have swung into action when the minorities have been harassed. Anyway, it is the prerogative of each organization to take the task they would like to. They have also supported the human rights issues raised when innocent people were harassed after being labeled as naxalites. Naturally this would raise the hackles of the reactionary elements and their supporters, one of them being an allegedly student organization, who have made Somayaji their target. Not liking his stand on these issues they have been having agitations and submitting memoranda against him and asking the University College of Mangalore administration to remove him from the post of lecturer in English. Despite a vicious campaign lasting two years, they have not succeeded. Their latest

efforts are through the local member of the parliament who has written to the management of the college where he works as a lecturer to remove him from service for having criticized the state ruling party for having passed a legislation banning the slaughter of cattle. This bill though claims to be brought with the interest of saving milch animals, is actually directed against minorities whose primary source of dietary protein is beef which is cheaply available. The same has the effect of thrusting the dietary habits of one community on others. Eventually the bill which was passed in the legislative assembly was not sent for approval to the center by the governor of the state.

In the meanwhile we hear from our members in Andhra Pradesh that the superstition of Bhanamathi or black magic is rearing its head again. A number of killings have already taken place in many areas - the target being those who allegedly practice this form of supposed black magic to harm others. What prevents these people

from using their magical powers to protect themselves when attacked is not known, but the attackers always claim that the target has powers to inflict harm on others! The Rationalist groups of Andhra Pradesh have organized a protest march on the 12th November to protest such things are Suryapet near Hyderabad on the 12th of November. The executive director of IHEU, Babu Gogineni is one of the leaders of this and he is also trying to bring about legislation to make such things a criminal offence. We do hope that his efforts will succeed unlike in Maharashtra where such a bill was passed by the assembly a decade back but is yet to become law as it has been stalled in the upper house.

We do hope that we shall succeed in our campaign to get the parliament of India to make such a law that activities like black magic or threatening people by that become a criminal offense all over the country.

BS

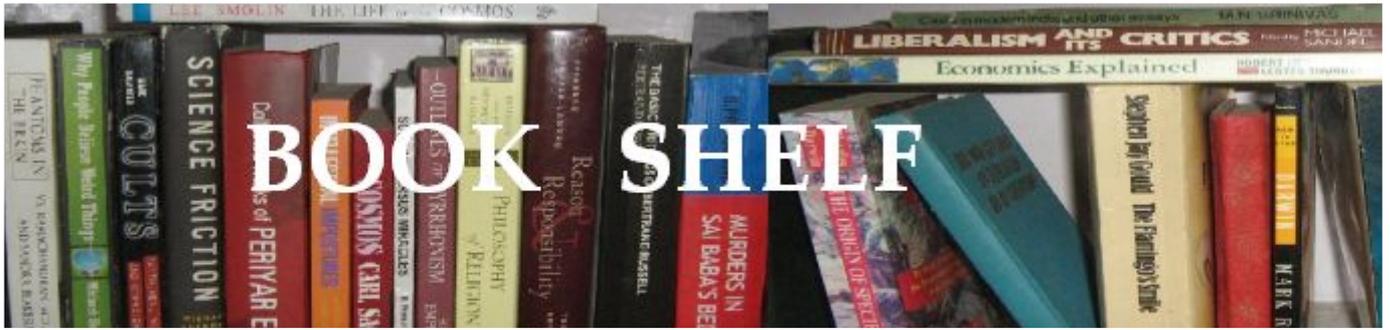
Reason, science, and human freedom only truly commence, as Epicurus recognized in antiquity, once the gods have at last been banished from the earth.

John Bellamy Foster, Brett Clark, Richard York

Critique of Intelligent Design

Materialism versus Creationism From Antiquity to the Present

(2008)



Alternative Medicine on Trial

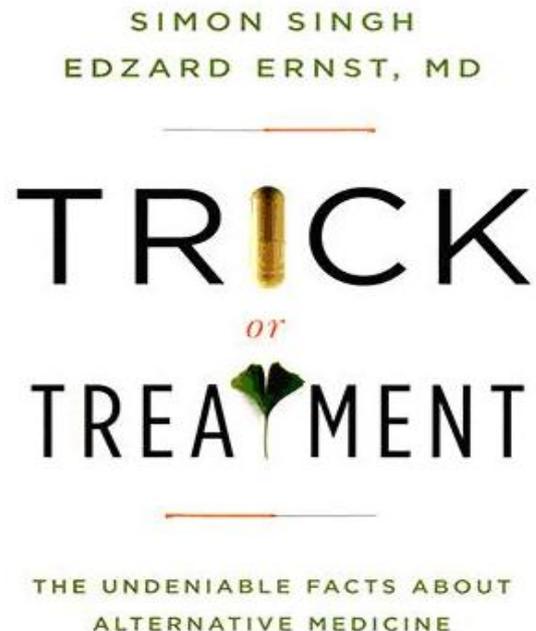
Prabhakar Nanawaty

Exaggerated claims, misleading advertisements, and false information about complementary and alternative medicine (CAM) make it virtually impossible to protect the public from today's snake oils readily available, *inter alia*, by Internet, TV, radio, and pharmacy shelves. Prince Charles of UK is a staunch defender and millions of people swear by it. The books shaking his belief on such medicines will never find their way to Prince Charles's bedside table.

Clinical Trials

In the book, *Trick or Treatment?* subtitled '*The undeniable Facts About Alternative Medicine*' the truth about the efficacy of alternative medicine is rigorously addressed by the scientists uniquely qualified to do so. Written by a best selling science author and a journalist, Simon Singh, who boasts a PhD in particle physics, and Edzard Ernst, a professor in complementary therapy, clearly hope to set a standard in the genre. Having spent over a decade at Exeter University meticulously analyzing the bewildering evidence for and against alternative therapies, Edzard Ernst, this former practitioner of both traditional and complementary medicine brings no bias to the subject.

In fact they introduce their book by



quoting Hippocrates as providing their guiding path:

There are, in fact, two things, science and opinion; the former begets knowledge, the latter ignorance.

Any treatment which cannot stand up to the rigours of scientific enquiry, by which Singh and Ernst mean a well conducted controlled clinical trial, has no place calling itself medicine and is simply hocus-pocus with good PR. At best such therapy is simply no better than placebo; at worse it is

positively dangerous. But even if it is harmless, it is far from costless, as the annual global spend on alternative medicine is in the region of £40 billion, money that could be spent on more fruitfully, should alternative therapies prove to be ineffective.

To explain this, Singh and Ernst take a historical approach, building the notion of the clinical trial as the gold standard for evaluating medical interventions. They start by telling us of one of the casualties of the ancient regime; on December 13 1799 former President George Washington awoke with the symptoms of a cold. He thought nothing of it, but by the following night he was gasping for air; serious, but potentially survivable, until blood letters

sufferers into six pairs, and gave each a different treatment. He also observed another group of sailors who received no treatment; these acted as a control. As a shot in the dark, to one pair he gave oranges and lemons; this group made a miraculous recovery.

Statistical Methods

Just as interesting, Singh and Ernst tell us about Florence Nightingale and her penchant for statistics. Feeling a divine calling to become a nurse, Nightingale decided to work in the hospitals of the Crimean war, having read reports of the large numbers of soldiers dying there from cholera and malaria. Upon her arrival at her chosen hospital she embarked on the

In their hard-hitting scrutiny of alternative and complementary cures, the authors strive to reassert the primacy of the scientific method as means for determining public health and policy. In fact the authors point out at least ten culprits in the promotion of unproven and disproven medicine. The list includes celebrities, sham medical researchers, Universities, the media, hungry of sensationalizing news, medical professionals who are not honest to their profession and plethora of alternative medicine societies and lastly WHO.

drained Washington of half his blood in less than a day. These men weren't witchdoctors, but Washington's personal physicians. They thought that they were working in the great man's best interests, but alas the medical profession had yet to work out how to distinguish interventions that worked from those that didn't.

Typically, it was a British man who first came up with the randomized control trial, even more typically he then totally failed to capitalize upon his insight. The man was a naval surgeon called James Lind. Britain at this time was the world's greatest seafaring nation, but any journey lasting more than a few weeks was blighted by scurvy, a disease we now know is caused by a deficit in vitamin C. Lind split twelve scurvy

mother of all spring cleans and within one week removed 215 handcarts of filth, had flushed the sewers nineteen times and buried the carcasses of two horses, a cow and four dogs all of which were found in the hospital grounds. But amazing to us now the officers and doctors who were previously in charge, felt that these changes were an insult to their professionalism. Fortunately Nightingale also had a statistical education and used this to demonstrate that soldiers under her new order fared much better than those hospitalized in less salubrious conditions. By telling this Ernst and Singh also seek to demonstrate that, quite opposite to what alternative practitioners believe, scientists are willing to accept ideas which run contrary to the current received wisdom.

The clinical trial is such a strong instrument that it forces them to do so.

Acupuncture

In the next four chapters of their book, the authors take four of the main branches of alternative medicine to task: Acupuncture, Homeopathy, Chiropractic therapy and Herbal Medicine. They take us through the history of each approach, its theory of action and assess the evidence for its efficacy. In fact Chiropractic therapy is not practiced much in India. However, it will soon take over the other therapies and allopath.

Acupuncture, is an ancient treatment, whereby the body's 'Ch'i', its vital energy or life force flows through our bodies in channels called meridians. Illnesses are due to imbalances or blockages in the flow of Ch'i and the goal of acupuncture is to tap into the meridians at key points to rebalance or unblock the Ch'i. Ernst and Singh cite the experience of James Reston, who was reporting on Nixon's 1973 Chinese visit as key for acupuncture's introduction into the west. Whilst in China he suffered from appendicitis and was treated by acupuncture, bringing news of his treatment and recovery home. Unlike Reston, Ernst and Singh are unconvinced. They demolish positive papers published by the WHO as having included too many trials, some of which used poor methodology, and conclude that the science behind acupuncture is implausible and totally without evidence. They finish by saying that Acupuncture has inconsistent evidence to suggest that it has a use in pain and nausea control.

Homeopathy

If acupuncture gets one point, then Homeopathy gets null. This was the work of a German physician Samuel Hahnemann at the end of the 18th century. Hahnemann correctly realised that he and his medical colleagues knew nothing about how to treat people, but he then moved away from the

then conventional medicine and contrived to establish his own brand of treatment. Having taken quinine one morning he found himself having the same symptoms as if he had malaria. From this he extrapolated a universal principle

'That which can produce a set of symptoms in a healthy individual can treat a sick individual who is manifesting a similar set of symptoms'.

Even better, he went on to say that the potency of a cure could be greatly enhanced by diluting them. Not just a little bit either; some homeopathic remedies are at the sort of concentration you might expect from putting a teabag in Lake Superior. Singh and Ernst find this all highly improbable, and put any positive effects attributed to this brand of alternative medicine down, amongst other things, to the body's ability to heal itself.

(In fact Ernst and Singh challenge homeopaths to demonstrate that homeopathy is effective by showing that the Cochrane Collaboration has published a review that is strongly and conclusively positive about high dilution homeopathic remedies for any human condition.

They cite :

"The conclusion in our book (Trick or Treatment) suggests that there is no convincing evidence to show that homeopathic remedies are effective in the treatment of any conditions, except as a placebo. However, our conclusion has been met by criticism from many homeopaths, who claim that homeopathy is effective and who accuse us of ignoring or misunderstanding the evidence. So who is right, us or the homeopaths? We are so confident in our conclusion that there is no convincing evidence to support the use of homeopathy that on 16 June 2008 we announced a £10,000 reward for anybody who could prove us wrong."

Chiropractic Therapy

The founders of chiropractic therapy argue that ill health in the body is due to subluxations, slight misalignments of vertebrae in the spine. These subluxations interfere with the flow of innate intelligence (a bit like Ch'i). They are corrected by spinal manipulation, whereby the practitioner flexes or extends the neck beyond its normal range of movement. There are some chiropractors called 'mixers', who are basically back specialists, however their 'straight' colleagues believe that their techniques can cure the body of ills seemingly unconnected with the bony structures. It is reported in the book that it is not unusual for chiropractors to spinally manipulate patients without their consent on their first appointment, and furthermore that this spinal manipulation has led to vertebral artery dissections and death in patients.

(When Simon Singh wrote an article on bogus claims of chiropractic therapy for the Guardian, The British Chiropractic Association, preferred reality to bend to their will. They've been making some outrageous claims lately about the efficacy of their "treatment", things that are clearly wrong. Simon wrote about this in a column, saying,

The British Chiropractic Association claims that their members can help treat children with colic, sleeping and feeding problems, frequent ear infections, asthma and prolonged crying, even though there is not a jot of evidence. This organisation is the respectable face of the chiropractic profession and yet it happily promotes bogus treatments.

Unsurprisingly, the BCA took a dim view of this. Instead of producing the results of variable-controlled double blind studies with statistically significant testing procedures to back up their claim they sued him instead.

In the US that would be a dumb thing to do, as US libel laws put the burden of proof on the claimant (in this case, the BCA), as things should be. However, the UK is very different: when party A sues party B for libel, it's up to party B to prove their innocence.

The ramifications of this are obvious: a chilling effect on dissent in the media against, well, anything. If you call someone on the carpet for making fallacious claims, they can basically shut you up by suing you. Not surprisingly, there are many people dissatisfied with this approach to libel, but it's what Simon is dealing with currently.

Worse, in Simon's case, a judge ruling in the preliminary hearing agreed with the BCA, citing Simon's use of the word "bogus" to mean that the BCA knowingly is perpetrating fraud. The judge is obviously wrong here; Simon went to some pains to indicate in that very article that his use of bogus did not mean intentional fraud, but instead to mean wrong, as in chiropractic techniques cannot be used to cure the ills the BCA claims.)

Herbal Medicine

Before their finger pointing and conclusions and an interesting section entitled 'Why do smart people believe such odd things?' Singh and Ernst take as their fourth case study Herbal Medicine. This is a more tricky area for them, as unlike their previous three methodologies, some herbal remedies, for example St John's Wort, actually work. Here the problems are more subtle. There's worse too, as herbal remedies can interact with conventional drugs with unpredictable consequences and if they are taken in preference to conventional medicines they won't get you very far, as the authors tell us was discovered by several unfortunate, but trusting, cancer victims. And beware; some herbal remedies are effective because they actually contain conventional medicines.

So whose fault is this? Ernst and Singh propose that most alternative remedies trade on being more natural, traditional and holistic, three ideas they quickly dispatch. Uranium is natural, bloodletting was traditional, and holistic medicine is not a preserve of alternative practitioners – GPs regularly give lifestyle advice. According to authors, there should be warning messages on alternative medical treatments like cigarettes they say, accurately reflecting the current evidence. For Homeopathy this would read

Warning:

This product is a placebo. It will work only if you believe in homeopathy and only for certain conditions, such as pain and depression. Even then it is not likely to be as powerful as orthodox drugs. You may get fewer side effects, from this treatment, than from a drug, but you will probably get less benefit.

Rapid Guide

A "rapid guide to alternative therapies" attached as appendix to this book summarizes the background, the evidence, and scientific conclusion for 36 additional popular therapies, including aromatherapy, Ayurvedic tradition, colonic irrigation, food supplements, hypnotherapy, magnet therapy, massage therapy, spiritual healing, and traditional Chinese medicine. In fact it is interesting to know that how these therapies were involved, who got benefits out of them. A therapy called Alexander Therapy is nothing but a process of relearning correct postural balance and coordination of body movements. How any one can believe that sitting position will cure recurring loss of voice? Authors describe many fake gadgets which were developed to fool the public. These entrepreneurs generally claim that their gadgets cure this disease or prevent that disease and make money. While commenting on Indian Ayurveda tradition authors comment that the whole system of Ayurveda has not been submitted to clinical

but elements of it have. Except for a few remedies none of them have the evidence sufficiently strong to warrant a positive recommendation.

In this way, in their hard-hitting scrutiny of alternative and complementary cures, the authors also strive to reassert the primacy of the scientific method as means for determining public health and policy. In fact the authors point out at least ten culprits in the promotion of unproven and disproven medicine. The list includes celebrities, sham medical researchers, Universities, the media, hungry of sensationalizing news, medical professionals who are not honest to their profession and plethora of alternative medicine societies and lastly WHO. They go onto blame celebrities for endorsing alternative treatments, universities for providing alternative medicine courses to make money and thus legitimizing alternative approaches, the media for inaccurately reporting the benefits of alternative therapies and many doctors for prescribing alternative medicine to get difficult patients out of their consulting rooms.

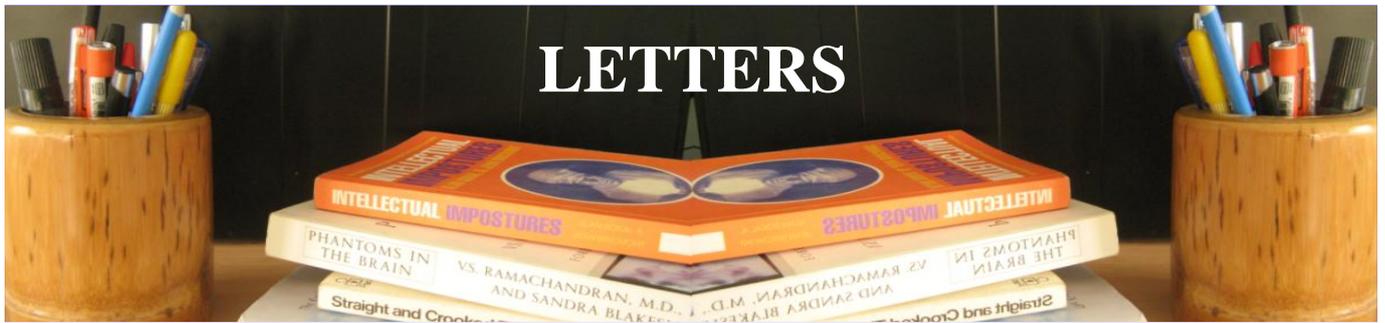
Trick or Treatment
(The Undeniable Facts about Alternative Medicine)

Simon Singh and Edzard Ernst, MD

Published by W. W. NORTON & COMPANY, New York;
2008; pp 342.

BS

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We are entitled to our opinions

Let alone sympathizing with the Ram people, I do not even believe that any Ram ever existed! Though the literary value of the work of Valmiki is superb in giving a picture of the society of a period, the values which once ruled are now questioned.

My issue is that the subject was used to vent the angst of the author on the political parties of his ire. He used yellow parties (Mnaya Katiyar, Viswa Hindu Parishat, etc.,) which are born one day and die the next; using irresponsible and irrelevant parties to attack the major political parties is not fair. The names of the major party is used ever so often that the prejudice becomes obvious.

We do not need to go far to see that there is an exact anti-Ram party with equal idiosyncrasies and mindsets and purely political motives. In truth the issue we are discussing is indeed a political one!

In any case I do not wish to prolong the debate. Just as I am entitled to my opinion, so is the writer

SG Nagaraj
Bangalore

Thanks for the issue as well as the Judgment (of Karnataka High Court) copy. The judgment text can be an article material for any rational magazine. Dr Puniyani's article covers all the aspects of Ayodhya disputes. Thanks.

Prabhakar Nanawaty
Pune

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

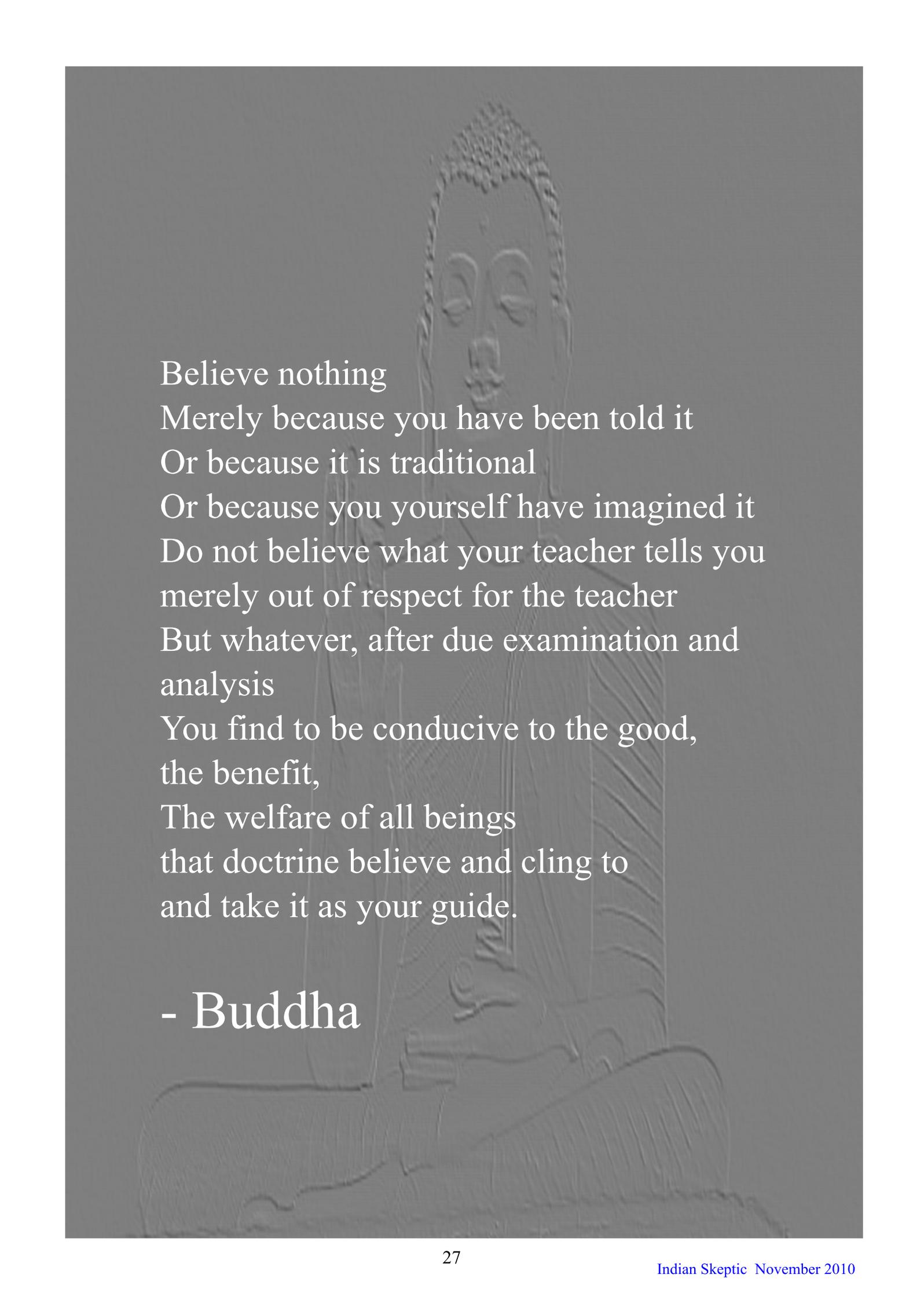
Carl Sagan's famous essay, *The Fine Art of Baloney Detection*, more or less encapsulates the basic tenets of Skeptical Thinking. The present article is an extract from the essay.

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