

The Newsletter of The North Texas Skeptics

Volume 15 Number 10

www.ntskeptics.org

October 2001

In this month's issue:

- [A matter of degree](#)
- [Sathya Sai Baba the ugly](#)
- [September 11: "Day of the Birds"](#)
- [Skeptical Ink](#)

A matter of degree

by John Blanton

A little bit of difference matters a lot sometimes. Sometimes a lot seems to matter not at all. Certainly not to Kent Hovind.

We've met "Dr." Hovind previously in the December 1994 issue and later editions of *The Skeptic*. Hovind is a self-professed scientist with a degree from a diploma mill, and he spends a lot of time telling us what's wrong with evolution. He is one of the more notorious Young Earth Creationists (YEC) these days, and he seems to get around a lot.

A web site listed under the heading "Kent Hovind's Cytochrome Lie"¹ is linked from John Stear's "No Answers in Genesis" Web site.² The issue at hand is the fraudulent treatment of molecular biology by Hovind and other YECs. We start with cytochrome c, which is a protein involved in electron transfer in cellular chemistry. Proteins are complex molecules made up of various amino acids strung together. There are 20 amino acids, which are commonly referred to by single-letter abbreviations as shown in Table 1. Cytochrome c, as with other proteins, is described by the sequence of its constituent amino acids, e.g., mgdvekgkki..., etc.

Oh, here's where Kent Hovind and the other YECs come in. The following is from a document originally by Hovind on the Internet, but not now accessible. The following Hovind text is on the Cytochrome Lie page:

Well, now, hold it. If you want to just pick one item and that's supposed to prove relationship, did you know that human Cytochrom [sic] C is closest to a sunflower? So really the sunflowers are our closest relative folks. It depends what you want to compare. If you want to compare the eyes, we are closest to an octopus. Not a chimpanzee. Pick something. What do you want to compare? Human blood specific gravity is closest to a rabbit or a pig. Human milk is closest to a donkey. It depends on what you want to compare. Pick something. If there were not some similarities between us and other animals we could only eat each other. So God designed all animals from the code so we could eat other plants and animals and digest them. Not proof for evolution. It's proof of a common Designer!

Something apparently got lost in the translation, because the claims by Hovind are just false. The cytochrome c comparisons particularly don't stand up. The Cytochrome Lie site lists cytochrome c sequences for various organisms, and I have just copied them in Table 2.³ Like the original author I have inserted some spaces to make the sequences more readable.

But look. Despite what Hovind was saying, the chimp and human sequences seem to match exactly. What was the good "doctor" thinking? Most likely that creationists can't read.

Furthermore, comparison of sequences for the different organisms show what should be expected from evolution. Although cytochrome c performs much the same function in the different organisms it shows these differences due to random DNA copying errors during reproduction. As long as the resulting protein performs a useful (and required) function in the descendent organism, the descendent will thrive and reproduce, and the error will be retained in the subsequent lineage. The further along the line of descent a particular organism is the more accumulated change there will be. If a lineage branches, as during the formation of a new species, the chain of differences will diverge, as well. The result is that the accumulated differences between two living organisms marks the amount of change since the two lineages diverged.

The number of letters that differ between two sequences provides an assessment of the amount of change. From a table linked from the *Cytochrome Lie* site it can be seen that a silkworm moth differs from horses, dogs, kangaroos, penguins, ducks pigeons, turtles, tuna, carp, and lamprey by an amount that

ranges from 23% to 31%. The differences between the silkworm moth insect and the vertebrates listed fall into a fairly narrow range. Also, we note that silkworm moths differ from the screw-worm fly and the tobacco horn worm moth by 13% and 5%. Those insects and the vertebrates just mentioned all differ from wheat by values in the range 38% to 46% (mostly 41%). As expected from evolution, all those animals branched off from the plant lineage at the same point.

Hovind is not the first to blunder into this minefield of science. The infamous *Of Pandas and People*, which is an *intelligent design* text that has been urged on local school boards for over ten years, has a similar table and gets stuck in the same cow patty. We previously covered this in the July 1998 issue of *The Skeptic*, the forerunner of the rag you are now reading. Cytochrome c is not the only complex protein to snare the creationists. The *Creationist Frauds* Web site also mentions lysozyme and gives a further example of Duane Gish:

Duane Gish is probably the most infamous for making such claims. He has for over two decades claimed that there exists a protein which [in] the bullfrog's version is closer to the human version than the chimp version. This would clearly rule out Darwinian evolution. And yet two decades of requests that he actually state which protein it is have not generated an answer. The *Bullfrog Affair* gives a lot of detail on Gish's lie.⁵ Also see [this](#) and [that](#).⁶ It should also be noted that Gish has also made the chicken lysozyme claim debunked above.⁷

"The Bullfrog Affair or The Enchanted Prince Croaks" was originally written by David C. Wise in 1990, and that story goes back to 1982.⁸ At the time modern molecular biology was beginning to get the legs that eventually brought about the current revolution. Wise writes:

As biochemical research accumulates libraries of data describing protein structures and amino-acid sequences from different organisms, researchers are repeatedly amazed at how similar the proteins of related organisms are and how the proteins become more dissimilar as the organisms compared are more distantly related. Even Michael Denton, who expressed opposition to the idea of macro-evolution in his book, *Evolution: A Theory in Crisis*, expressed amazement at how good the numbers are.

In a recent article in *Discover* magazine, Dr. Russell Doolittle tells how his early research in protein comparisons had sparked his interest in evolution. In a 1982 PBS program, he told this story:

"Ever since the time of Darwin the chimpanzee has been regarded as man's nearest living relative. Naturally it was then of interest to biochemists to see what chimpanzee proteins would look like. Now the first protein to be looked at in a chimpanzee, and compared with a human, was the hemoglobin molecule — hemoglobin one of the blood proteins — and in fact, there were no differences found in the chimpanzee molecule when 141 amino acids were looked at in the hemoglobin alpha chain. In contrast, if you looked at a rhesus monkey, there were four differences; or if you looked at a rabbit, you found the differences got up into the 20s. If you got up to a chicken you'd find 59 differences; and if you looked at a fish you'd find there were more than a hundred differences. Now this is exactly what you expect from the point of view of evolution."

"Three more proteins were analyzed."

"Once again, no differences compared — chimpanzee compared with human. It was astonishing. In fact a rumor began to sweep around biochemists, that maybe all the differences between chimpanzee and human were really going to turn out to be cultural. Well, in fact, one more protein was quickly looked at — this was a large one — 259 amino acids — and a difference was found. Whew!"⁹

All this kind of stuff must have started to irritate the creationists, because they began to strike back. They wanted to show that some protein comparisons produced ridiculous results. Creationist Gary Parker, in his book *Creation: The Facts of Life*, had a list of molecules showing that humans are closer to organisms other than apes.

For example, comparison of the fetal hemoglobin molecule indicates the horse is our closest relative. Other comparisons show the following results:

Tear Enzymes:	Chicken
Albumin:	Bullfrog
Blood Antigen A:	Butter bean
Cholesterol Level:	Garter snake
Milk Chemistry:	Donkey

Frank T. Awbrey and William M. Thwaites, examined the literature and refuted Parker's assertions in *Creation/Evolution* journal in 1982.¹⁰ Wise quotes loosely from the journal article:

Fetal Hemoglobin: Hemoglobin has four globin molecules, each arranged around a central iron atom and a porphyrin ring. Human fetal hemoglobin has two alpha globins and two gamma globins, each with 146 amino acids. Horses don't have gamma globins. Chimpanzees do, and it is identical to that of humans. So creationists conclude that a molecule that doesn't exist is more similar to a human molecule than is an identical chimpanzee molecule.¹¹

Similar results were found for the other claims by Parker. Human and chimp albumin differs by 6 out of 580 amino acids. Human and bullfrog albumins "don't [even] cross-react in immunological tests." And it goes on. Cholesterol level is not even a means for comparison. My cholesterol level differs greatly from my wife's, and we're supposed to be the same species.(?)

The *Bullfrog Affair* began 7 July 1982 with a broadcast on San Diego public station KBPS titled *Creation vs Evolution: Battle in the Classroom*. "After Dr. Doolittle related his story of the chimpanzee blood proteins (see above), Dr. Duane Gish responded:"

If we look at certain proteins, yes man then, it can be assumed that man is more closely related to a chimpanzee than other things. But, on the other hand, if you look at certain proteins, you will find that man is more closely related to a bullfrog than he is to a chimpanzee. If you focus your attention on other proteins, you'll find that man is more closely related to a chicken than he is to a chimpanzee.¹²

And this is from a man who was supposed to have received a Ph.D. in molecular biology from the University California at Berkeley. Doolittle responded "Oh bullfrog! I've heard that gibberish before, I have to tell you."¹³ That was the start of the *Bullfrog Affair*.

... Then Doolittle indicated a book full of amino acid sequences from thousands of proteins taken from many hundreds of species and offered Gish all his worldly belongings, a '63 VW and half a house, if Gish could find just one protein in chickens or bullfrogs that is more closely related to human proteins than chimpanzee proteins.¹⁴

Gish subsequently missed numerous opportunities to back up his claims and once even tried to laugh the whole matter off as a joke. In a debate with Gish at the University of Minnesota in February 1985, Philip Kitcher gave Gish an ultimatum:

In his final remarks, Kitcher demanded that Gish either produce references for the chicken and bullfrog proteins or admit that they do not exist. Gish ignored the challenge, which apparently disappointed many in the audience who had read my editorial, for Gish's final remarks were punctuated with sporadic cries of "Bullfrog!"¹⁵

Attempts by others, such as Robert Schaedewald and John Patterson to get Gish to put up or shut up have been unsuccessful. In fact, other creationists have jumped on the "bullfrog" bandwagon. Frank Arduini noted a claim by Walter Brown of the Center for Scientific Creation in the Chicago area. Brown indicated the rattlesnake's closest biochemical relative was the human. Brown has maintained he is not responsible for providing evolutionists with documentation of his statements, and he once demanded a fee of \$70 for providing such information. Moreover, when Robert Kenney pressed Brown for details on another matter Brown reiterated the rattlesnake claim. It turned out the rattlesnake association originated with a school project by Brown's son, and Brown charged Kenney \$15 for photocopies of the project. A waste of money it turned out.

In the project I quickly found that the rattlesnake and humans differed by only fourteen amino acids. Humans and rhesus monkeys differed by one amino acid. Later, Brown called me again and then explained that of the forty-seven organisms in the study, the one closest to the rattlesnake was the human, not that the one closest to the human was the rattlesnake. You see, among the forty-seven there were no other snakes.¹⁶

Kenney subsequently noticed Brown repeating the rattlesnake story to a group of listeners at a meeting and brought up the source of the claim. Brown shifted the topic to other matters.

Capitalistic forces are driving intense research in biotechnology, and laboratories all over the world are piecing together the fabric of evolution through protein sequencing and analyses of DNA. It's as though we have a great box of puzzle pieces and an immense expanse of clean floor on which to assemble them. People keep picking up pieces and bringing them over and putting them in place. There's no piece that doesn't fit.

We have to wonder what the creationists are thinking. The bare floor space for them to stand on keeps shrinking, and they keep making excuses and scouting out the remaining empty floor. It would seem dangerous for someone in their position to stake out a boundary, to draw a line in the sand, so to speak. Remarkably, they keep doing it.

Who listens? Many who cling to a metaphysical source of comfort and view science as a relentless threat. The words of a creationist at a MIOS meeting a few years ago come back. Children taught creationism at home will begin to doubt their faith when they go to college and learn the truth. "Don't send them" was the suggestion offered that night.¹⁷ Absurd as that may sound, note the positions taken by supposed men of science, educated at the best schools and spending their working lives trying to refute what is painfully obvious.

When science bucks ideology, as it does with creationism, science will prevail whenever there is tangible gain. Current strides in biology are showing that. When potential gain is distant or less concrete the creationists will continue to make ground as will other anti-science movements, such as post modernism. When science gives an unpopular answer it's a continuing challenge to ignore the will and accept the evidence.

Table 1. The 20 amino acids

alanine	a
arginine	r
asparagine	n
aspartic acid	d
cysteine	c
glutamic acid	e
glutamine	q
glycine	g
histidine	h
isoleucine	i
leucine	j
lysine	k

methionine	m
phenylalanine	f
proline	p
serine	s
threonine	t
tryptophan	w
tyrosine	y
valine	v

Table 2. Comparison of cytochrome c for various species

Corn:

asfseappgn pkagekifkt kcaqchtvek gaghkqgpnl nglfgrqsgt tagysysaan
knkavvween tlydyllnpk kyipgtkmvf pglkqpqera dliaylkeat a

Sunflower:

asfaeapagd pttgakifkt kcaqchtvek gaghkqgpnl nglfgrqsgt tagysysaan
knmaviween tlydyllnpk kyipgtkmvf pglkqpqera dliaylktst a

Human:

mgdvekgkki fimkcsqcht vekggkhtg pnhglfgrk tgqapgysyt aankngiiw
gedtlmeyle npkkyipgtk mifvgikkke eradiaylk katne

Common Chimpanzee:

mgdvekgkki fimkcsqcht vekggkhtg pnhglfgrk tgqapgysyt aankngiiw
gedtlmeyle npkkyipgtk mifvgikkke eradiaylk katne

Rabbit:

gdvekgkkif vqkcaqchtv ekggkhtgp nlhglfgrk tgqavfsytd anknkgitwg
edtlmeylen pkkyipgtkm ifagikkkde radiaylkk atne

Bullfrog:

gdvekgkkif vqkcaqchtv ekggkhtgp nlyglgrk tgqavfsytd anknkgitwg
edtlmeylen pkkyipgtkm ifagikkkge rqliaylks acsk

References

¹ <http://home.mmcable.com/harlequin/evol/HovindLie.html>

² <http://home.austarnet.com.au/stear/default.htm>

³ <http://home.mmcable.com/harlequin/evol/HovindLie.html>

⁴ <http://members.aol.com/SHinrichs9/descent/denton.jpg>

⁵ op cit

⁶ <http://www.talkorigins.org/faqs/cre-error.html> and <http://www.talkorigins.org/faqs/icr-whoppers.html>

⁷ <http://home.mmcable.com/harlequin/evol/HovindLie.html>

⁸ http://members.aol.com/dwise1/cre_ev/bullfrog.html

⁹ op cit

¹⁰ Creation/Evolution Issue VII, 1982, pp. 14-17

¹¹ http://members.aol.com/dwise1/cre_ev/bullfrog.html

¹² op cit

¹³ op cit

¹⁴ op cit

¹⁵ op cit

¹⁶ op cit

¹⁷ *The Skeptic*, November 1994

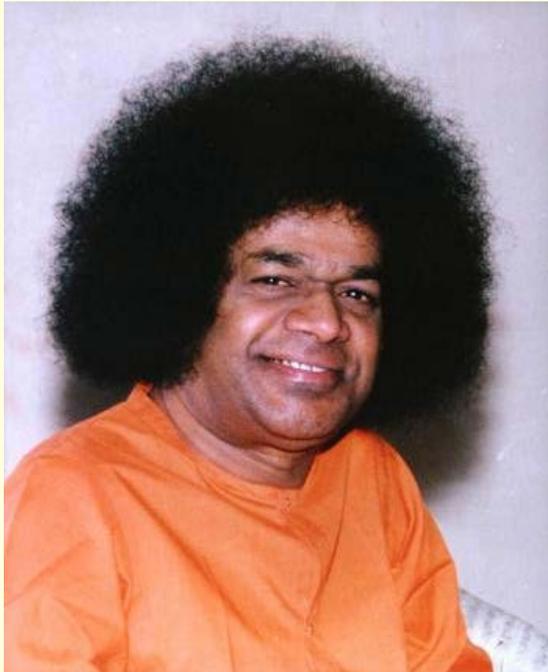
[\[Back to top\]](#)

Sathya Sai Baba the ugly

(First of two parts)

by Prasad Golla

The previous article "Introduction to Sathya Sai Baba" in the March 2001 issue of *The North Texas Skeptic* told the story of Sai Baba the god. The facts show a different side.



Sai Baba

From <http://members.aol.com/introsai>

The fact is that there is no Sathya (Truth) in Sathya Sai Baba. He is a fraud thriving on the gullibility of the masses for more than half a century. Though he has not been able to permeate into the heart of the society in his region, he has been able to acquire millions of devotees from around the globe and to amass wealth and political muscle to ward off seemingly powerless skeptics and humanists.

His typical teachings are as follows: ¹

"In all religions there are universal human values . . . the importance of prayer, the need for worship, the principle of the brotherhood of man and the fatherhood of God, and the cultivation of love for all beings. Hindus, Muslims, Christians, Buddhists, Jews each have their own mode of prayer, but what all are seeking is the Grace of God."

Apart from all these niceties, other evidence indicates he is a crook and truly a ghomukavragryam (a tiger masquerading with a cow's face).

Sai Baba's miracles are third grade magician's tricks that have been exposed time and time again. For one such recent act caught on tape check "No more 'holy ash' Sai Baba exposed by Rationalists" by K Vasudevan.²

This challenge had been already put up back in 1965 by the famous rationalist Professor Abraham Kovoor, who was the first to expose Sai Baba's "miracles." Since then the Indian Rationalist Association has from time to time called upon Sai Baba in public forums and in letters to face up to this demand, but for more than thirty years the Baba has kept mum. Meantime the Asian Age quoted Sanal Edaramuku as saying Sai Baba was caught red-handed: During the celebration of his 69th birthday, he "materialized" a golden chain by plucking it away from the bottom of a plaque, where it had been pasted up. The scene was filmed by a cameraman of the national television Doordarshan. Though Doordarshan had blacked out this clipping, copies of a smuggled-out cassette from Doordarshan studios were circulated all over India and abroad. The famous British documentary *Guru Busters on Indian Rationalists*, which was originally telecast by Channel 4 in the UK in 1995, reproduced this clipping in slow motion. The documentation has by now been

shown in twelve countries. Sai Baba or his institutions have been unable to deny its authenticity.

The challenge this excerpt mentions is similar to the skeptical challenge of NTS, and is valued at Indian Rupees 100,000.³

There have been fantastic godly qualities attributed to Sathya Sai Baba and claims made about him by himself and his devotees. The claims run like this: 1) He is omnipotent and omniscient (which covers quite some ground in my opinion). 2) He can raise people from the dead, heal the sick and rescue his devotees when they are in dire circumstances. 3) He has complete telepathic knowledge. 4) He is well versed with the religious texts of all the religions because he was the one who delivered them. 5) He knows history and languages no less than what you can reasonably expect from God. 6) Of course, his famous materializations which would drop your jaw with awe.

Skeptical investigations of these claims are rather laborious and elusive. The debunking of these myths is documented in the form of a book available on the web. This text makes an interesting and amusing reading. *Sai Baba's Miracles: An Overview* edited by Dale Beyerstein and forms the crux of B. Premanand's work on Sathya Sai Baba. This book can be a good start for anyone who wants to investigate dubious religious figures in particular and skepticism in general.⁴

When I was around ten years old I chanced upon a skit being played on a makeshift stage in a playground. Though I was too young to understand what was going on, my father later explained that it was about this Baba (holy man) who would supposedly materialize objects from thin air.

He told me that the Baba hides Seiko watches up his sleeve and materializes them for everyone's amazement. I remember wondering why on earth would God have to put Seiko stamps on a watch that he can create. You know what they say, young minds are easily influenced. Though to this day I don't know who arranged this skit, I would guess that it had been arranged by the Indian Skeptics.⁵ For a rundown on the Seiko watch materialization claims check Beyerstein's book.⁶

The *Indian Skeptic* is published by the chairman of Indian CSICOP, the famous "Anti-Guru" B. Premanand. For decades, B. Premanand has made it his job to bring Sathya Sai Baba to justice. He is still going strong with the case on Sathya Sai Baba about the kidney fraud in one of Sathya Sai Baba's Medical facilities in "The Case Of The Missing Kidney."⁷ Premanand published a number of books on Sathya Sai Baba, one of the latest being *Six Murders in Sai Baba's Bed Room*.⁸ The murders are related to an assassination attempt on his holiness, by some of the students of his educational institution for alleged sexual abuse of the institute's young boys.

There have been several allegations on Sathya Sai Baba about his sexual abuse of boys who were his former devotees. One such devotee is Conny Larsson of Sweden, who tells his story in "The Swami who deceived a whole world."⁹

The story of the murders is available from the New Heaven New Earth Special Reports Web site:¹⁰

Much worse was in store when on 6 June, 1993, six inmates of Prashanti Nilayam were murdered in Satya Sai Baba's bedroom. It is alleged that two were killed by the assailants and the police claimed to have shot dead—in self defence—four of the assailants, who were armed only with knives. Realizing the danger to his person, Baba Himself ran for His life, jumped out of an open window and started off a secret alarm, whose existence even the inner core did not know of. Interestingly, all the people killed were part of the inner circle of Sai Baba, among whom Radha Krishna Menon, the personal assistant who was caught on video passing the necklace clandestinely to Baba. Baba Himself spoke of the murders in His Gurupoornima lecture and dealt with the question of whether the deaths of his near and dear were unavoidable. "Birth and death go together. One should realize that death is a natural phenomenon and avoid worrying about it... You must note that Swami's life is in His own hands and not in those of anyone else. If I will it, I can live as long as I please. Because He is the almighty, God cannot behave in any arbitrary manner. Not realizing this truth, men who are involved in worldly ways ask questions as to why in certain situations, God did not use his limitless powers to avert certain untoward events..."

References

¹ <http://members.aol.com/introsai/>

² <http://www.nzarh.org.nz/journal/autumn00.htm#SAIBABA>

³ <http://www.indian-skeptic.org/html/rules.htm>

⁴ Dale Beyerstein: <http://psg.com/~ted/bcskeptics/sbmir/db-book.html>

⁵ *Indian Skeptic*: <http://www.indian-skeptic.org/>

⁶ Beyerstein

⁷ *NHNE Special Report*: <http://www.nhne.com/specialreports/srsaibaba.html>

⁸ <http://www.indian-skeptic.org/html/bedroom.htm>

⁹ <http://www.sokaren.se/INDEX135.HTML>

¹⁰ *NHNE Special Report*

[\[Back to top\]](#)

September 11: "Day of the Birds"

By Daniel R. Barnett



The North Texas Skeptics wish to express our deepest sympathies to the families, friends, and associates of those who lost their lives to terrorist attacks along the East Coast on Tuesday, September 11, 2001. We have been profoundly saddened by the massive loss of life and the destruction that accompanied it, and we join the rest of our nation in honoring the victims as well as the brave police officers, firefighters, and everyone else who gave their lives during the subsequent rescue efforts.

We encourage each of you to do what you can. Support the relief organization or charity of your choice. Drop a few dollars into the boot carried by your local fire department if you see them. Give blood if you're able.

Some newspapers have labeled September 11 the "Day of the Birds" because the Federal government grounded all flights in America after the attacks, leaving only the birds to soar through the sky. For many, the sight was eerie and awe-inspiring.

In the aftermath of the attacks, however, we're now seeing a swarm of vultures descend upon America, bringing media scams, erroneous pronouncements of God's judgment, and other assorted nonsense from those seeking to capitalize on our national misfortune.

The North Texas Skeptics will not simply leave these activities alone. As consumer watchdogs in the marketplace of ideas and those who insist on the use of consistent logic and convincing evidence, we'll be covering these events as they develop. We are fortunate that the photograph supposedly taken from the World Trade Center's observation tower has already been thoroughly debunked. Still, there is much work to do.

Take heart. As Americans, we will ride this storm out, just like all the rest. Our nation will not give in so easily to fear and irrationality. Always remember our national motto: *E pluribus unum* - From many, one. Stay strong.

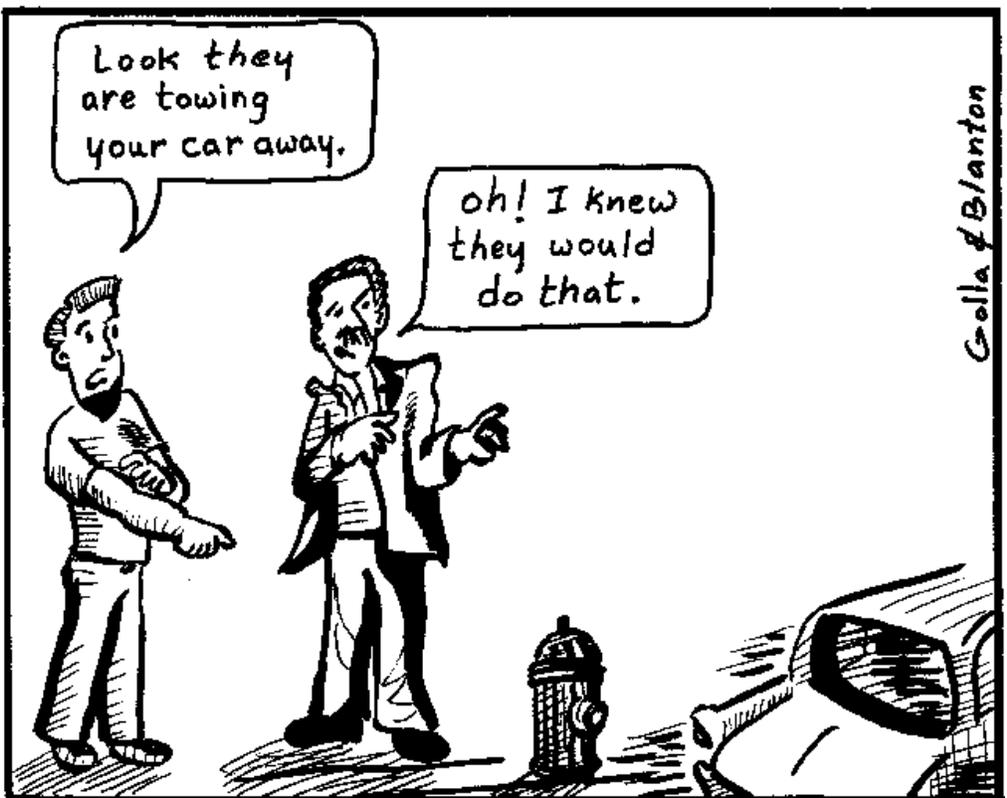
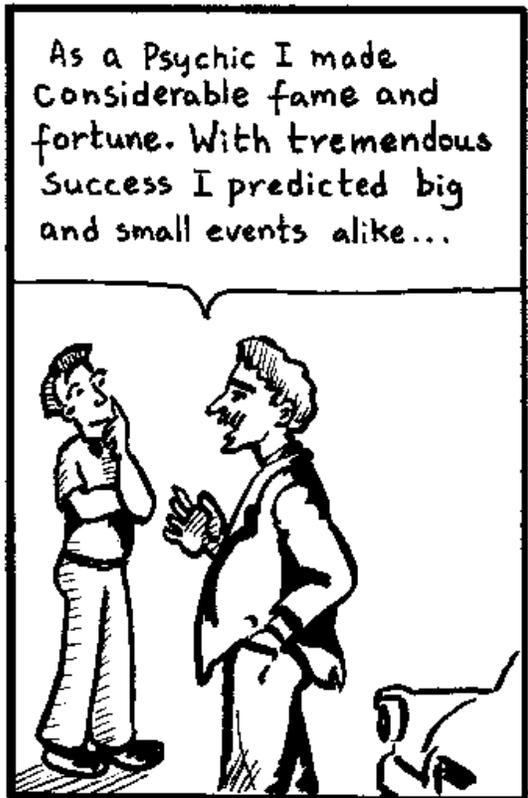
[\[Back to top\]](#)

Skeptical Ink

By Prasad Golla and John Blanton

Copyright 2001

Free, non-commercial reuse permitted.



[\[Back to top\]](#)