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Georgia Skeptics is a non-profit local group which shares a common philosophy with the national organization CSICOP (Committee for the Scientific Investigation of Claims of the Paranormal), and seeks to promote critical thinking and scientific inquiry as the most reliable means to gather knowledge of the world and universe. Like CSICOP, Georgia Skeptics encourages the investigation of paranormal and fringe-science claims from a responsible, scientific point of view, and helps disseminate the results of such inquiries.

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JOSEPH CAMPBELL AND THE NEW AGE

by Larry F. Johnson, Georgia Skeptics

There were some interesting letters to the editor in the Winter 1991 issue of Skeptical Inquirer in response to an article by Murray Bob in the Summer 1990 issue. Bob's article compared Joseph Campbell and Bill Moyers to Shirley MacLaine, and all three of the responses in the letters section were defenses of Campbell. The gist of the letters was that Campbell was an analyst of mythology, not a believer, and that Campbell shouldn't be held responsible for the misuse of his ideas and name by the New Age movement.

The exchanges started my train of thought meandering on the subject of mythology and skepticism. Two things made this seem important.

The first is the interest that the Bill Moyers/Joseph Campbell interviews generated. It became evident soon after I began researching Campbell that there was no shortage of materials. Between Campbell's own huge body of work, and the dozens of articles written in the wake of the Moyers interviews, one of the main problems involved in analyzing Campbell's role is sorting through the materials.

The second factor giving importance to this subject is the question of how skeptics examine mythology. I don't think even the most dogmatic reductionist in the world could deny that myth and metaphor play a powerful role in shaping human society. Yet one of the most frequent criticisms I hear of skeptics is that skepticism attempts to deny the human need for the spiritual and transcendental, and reduce the world to a set of dry materialist dogma.

With this in mind I outlined two articles. The first is an attempt to get a grip on the role of Joseph Campbell, and the second will grapple with the relationship between skepticism and what is generally called the "spiritual" component of people's lives.

In order to make any real sense of whether Murray Bob was justified in placing Campbell in the New age camp, a few questions have to be explored :

1. What are the basic ideas Campbell propagated?
2. What was Campbell's connection to the New Age movement?
3. Did Campbell believe mythology possessed any literal occult significance?
4. What are the major critiques of Campbell's work?

Campbell and the New Age

One thing that Murray Bob is certainly correct about is that the New Age movement has embraced Campbell's work enthusiastically. The local New Age bookstore has devoted considerable space to Campbell's work, and the Goddess cults and pagan religions have received considerable impetus from the Campbell/Moyers interviews. Murray Bob mentioned a book title from a New Age press - "Creative Visualization : The Power of Myth". Whole Earth Review ran an article by John Lobell tying Campbell to the "human potential movement" entitled " A Primer on

Joseph Campbell and the Mythological Dimensions of Consciousness". Lobell emphasizes in his article that the West Coast New Age audience formed a major part of the attendance at Campbell's lectures after his retirement from Sarah Lawrence.

So it's definitely evident that the New Age movement has a fascination with Campbell. The question then becomes: Are Campbell's beliefs consistent with New Age notions, or are the New Agers merely hanging on to Campbell's prestige, as the letter writers in Skeptical Inquirer implied?

Who Was Joseph Campbell?

Joseph Campbell was born in New York City in 1904 and died in 1987, shortly after filming the set of interviews with Bill Moyers which would make him a posthumous academic superstar.

After receiving a Master's degree at Columbia in 1925, Campbell began work on his PhD., but discontinued the program because of what he viewed as a stifling tendency towards specialization in the academic environment. Overt hostility to the academic world became a recurring theme in Campbell's public interviews.

Campbell went to Europe under a travelling fellowship from Columbia. In Europe he became exposed to Matisse, Joyce, Picasso, Mann, Jung and Freud. An enthusiastic and unapologetic eclectic, he began incorporating the various trends and influences he was absorbing into a theory of the meaning and purpose of myth. He met the Hindu mystic Jiddu Krishnamurti, added Eastern mythology to his growing repertoire, and became increasingly convinced that mythology worldwide was basically composed of the same set of archetypal stories.

He also totally lost interest in pursuing his Doctorate:

The world had blown open. I'm no longer in the Ph.D. bottle. I don't want to go on with my little Arthurian pieces. I had much more exciting things to do - and I didn't know what they were.

Interview with Donald Newlove Esquire
Magazine (September, 1977) Cited in
Segal- p.16

In 1934 he began teaching at Sarah Lawrence, where he was given a free hand to develop and put forward his theories with a minimum of constraints. He remained in this post for thirty-eight years, until his retirement.

I could write my own ticket there. I never had to fit into anyone's slot. I did not give a damn about teaching in a large university, or about whether I was an instructor or a

full professor, or about the specialist attitude, which I never could tolerate. I was much more interested in these comparative reaches.

Interview with Joseph Barbato Chronicle
of Higher Education (March 24, 1984)
Cited in Segal- p.16

Sarah Lawrence had no demand for publish or perish. I didn't have to publish a lot of junk in those official scrap baskets, Publications of the Modern Language Association and Journal of the American Oriental Society. Who the hell reads `em?"

Interview with Donald Newlove Esquire
Magazine (September, 1977) Cited in
Segal- p.16

Campbell used his position as a platform for developing and refining his theories of the meaning of myth, and began a prolific career as a writer and editor.

He edited the works of the Indologist Heinrich Zimmer, published as *Philosophies of India* (1941), *Myths and Symbols in Indian Art and Civilization* (1946), and *The Art of Indian Asia* (1955).

In 1944, he wrote (with Henry Morton Robinson) *A Skeleton Key to Finnegan's Wake* which was a guide to Joyce's difficult pun-laden novel.

His two best known works are a 1949 book entitled *Hero With a Thousand Faces*, and the four volume series *The Masks of God* published between 1959 and 1968. It was in these two works that he developed the basics of his theory of myth.

Campbell's Theory of Myth

The themes found throughout Campbell's writings are: the "four functions of myth"; the "hero's journey" and its attendant adage to "follow your bliss"; the theory that modern culture has lost touch with myth due to a sort of scientific mechanistic view of the world; and the Goddess myth.

He also takes it for granted that myths from different cultures are basically re-tellings of the same basic tales with local variations. A large part of his work is dedicated to the comparison of myths from different cultures. He also takes it for granted that institutionalized religions undermine the true purpose of myth, and

particularly that Western religions replace the mysticism which gives myth its power with a crude historicism and literalism.

Campbell states a number of times in his writings that myth serves four basic functions.

The first is the mystical function- that is the one I've been speaking about, realizing what a wonder the universe is, and what a wonder you are, and experiencing awe before this mystery...

The second is a cosmological dimension, the dimension with which science is concerned - showing you what the shape of the universe is, but showing it in such a way that the mystery again comes through...

The third function is the sociological one - supporting and validating a certain social order. And here's where the myths vary enormously from place to place...

But there is a fourth function of myth, and this is the one that I think everyone must try to relate to - and that is the pedagogical function, of how to live a human lifetime under any circumstances. Myths can teach you that.

The Power of Myth - p. 31

The applicability of myth to modern circumstances is a recurring theme in Campbell's writings and interviews. As a further contrast of his position at Sarah Lawrence with what he viewed as a dead academic atmosphere he stated :

I was teaching young women who weren't the least bit interested in academic affairs. They wanted to know what a myth might mean to them.... I was held to the life of my subject, and this is the thing which built whatever I have had as a career, which I think has been a pretty good one.

Interview with Michael McKnight Parabola
(February 1980) Cited in Segal p.17

The next recurring theme in Campbell's interpretation of myth is the concept of the universal "hero's journey". In this journey, the hero typically leaves home on some quest into a strange world, faces deadly obstacles, and returns victorious, finding that the "real world" and the "supernatural world" were the same world all along. This symbolic joining of the two worlds (physical and spiritual) is the strongest argument that Campbell's work belongs solidly on the New Age shelves. His advice to his audiences to "follow your bliss", and the supposed transformative power of the mythic journey dovetail nicely with a lot of the New Age self-development programs. They are also the basis of the charge that Campbell's work is a justification for self-indulgence

and materialism.

Campbell clearly believed that the modern world has lost touch with the tradition of myth. In part he seems to blame the Western religious tradition, and in part the rise of science, which replaced the cosmological function of explaining how the world is structured and how it operates.

Campbell did not, however, believe that the modern world was devoid of myth. His theory was that traditional myth, which had been a function of religion, was rendered impotent by the increasing institutionalization of the church, and loss of faith due to the rise of science. It was replaced by "creative mythology", in which the artist served the role of the hero. The artist (James Joyce was a very good example, and one of particular interest to Campbell) went through a series of dilemmas on their "hero's journey" and then returned to the physical world to present their findings to humanity, in the form of their work.

Did Campbell Believe in the Supernatural?

One question that has to be asked in evaluating the relationship of Campbell to the New Age types who have embraced his work is - did Campbell believe in the literal truth of the Myths he described and compared? The New Age adherents generally view their mythology as having a literal basis in fact. The "Power of Myth" to many of the New Age adherents represents an extension of the notion that we "create our own reality". Using this logic an individual can draw from the archetypal symbols and myths to create a version of the "mythic hero's journey" for themselves which is as real as any mundane historical fact.

A lot of the New Age fascination with shamanism isn't the psychological aspects of the religious culture from which they derive, but the notion that shamanism gives the practitioner occult powers. I seriously doubt that Campbell believed the shaman could fly or turn into animals.

It is pretty clear from Campbell's writings that he didn't believe that mythological figures represented concrete historical beings, and felt that even the originators and those who spread the myths viewed the myths as guides for living rather than historical fact.

Well, literal interpretation of the Bible faces the problem of scientific and historical research. We know that there was no Garden of Eden; we know that there was no Universal Flood. So we have to ask, says Campbell,

What is the spiritual meaning of the Garden of Eden? What is the spiritual meaning of the Flood? Interpreting Biblical texts literally reduces their value; it turns them into newspaper reports. So there was a flood thousands of years

ago. So what? But if you can understand what the Flood means in terms of a reference to spiritual circumstances- the coming of chaos, the loss of balance, the end of an age, the end of a psychological posture- then it begins to talk to you again.

Open Life -p. 67-68, cited in Segal
p.178

Campbell also recognized the origin of a lot of the myth and metaphor as deriving from the sort of inherited adaptive behavior that causes a chicken to run for cover at the shadow of a hawk, but ignore the shadow of a pigeon. A large part of Primitive Mythology in the "Masks of God" series is devoted to putting forward a theory on how evolved instinct and the environment (including level of culture) interact to produce mythology.

At the same time, however, he had a clear belief that the transformative power of myth was real and tangible. He seemed to think that there were different levels to the myths, including the genetic (inherited), the social and psychological, and the spiritual or "metaphysical".

And so, to grasp the full value of the mythological figures that have come down to us, we must understand that they are not only symptoms of the unconscious (as indeed are all human thoughts and acts) but also controlled and intended statements of certain spiritual principles, which have remained as constant throughout the course of human history as the form and nervous structure of the human physique itself. Briefly formulated, the universal doctrine teaches that all the visible structures of the world- all things and beings- are the effects of a ubiquitous power out of which they rise, which supports and fills them during the period of their manifestations, and back into which they must ultimately dissolve.

Hero With a Thousand Faces, p. 257 Cited
in Segal, P. 67

Campbell and Jung

Although he professed equal debt to Sigmund Freud and Carl Jung in the development of his ideas on the psychological components of myth, Campbell is widely viewed as a Jungian. He certainly cites Jung frequently throughout his writings and interviews, and makes frequent parallels between the myths he studied and Jungian archetypes. Jung held that humanity has a "collective unconscious", common to all cultures, and that symbols called archetypes recurred in the myths,

dreams, and ritual of all peoples, with superficial modifications due to varying historical and cultural tradition.

Archetypal symbols could include crosses, floods, virgin births, wheels of various sorts, stars and triangles, in fact any of the recurring symbols in dreams, myth, and ritual.

Jung was neither the only nor the earliest theorist to attach significance to the symbols in mythology, but the archetype and the idea of a "collective unconscious" have become associated with Jungian analysis. Robert Segal in *_Joseph Campbell- An Introduction_* points out a number of differences between Campbell's views and Jung's theories, but Campbell's heavy use of Jung's theories makes the identification of Campbell as a Jungian understandable.

Critiques of Campbell

Since the release of the Campbell/Moyers interviews there have been a number of criticisms published of Campbell and his works from differing viewpoints.

They include charges that he was anti-semitic (Brendan Gill, *New York Review of Books*, "The Faces of Joseph Campbell"[September 28, 1989 pp. 16-19]).

That his knowledge of the classics was uneven and that he modified myths to fit his theories (Mary R. Lefkowitz, *American Scholar*, "The Myth of Joseph Campbell" [Summer 1990 p. 429])

That he pandered to the self-development movement (John Wauck, *National Review*, "Paganism, American Style" [March 18, 1990 p.43]) and also the Gill and Lefkowitz articles.

And that he built an unsupported dogma, offering complete analyses of surprisingly few myths, and ignored rival theories (Robert Segal *Christian Century* "The Romantic Appeal of Joseph Campbell" [April 4, 1990 p. 332])

Campbell's writing and public speaking served as a means of popularizing mythology, but it is clear from his writing and interviews that his main concern wasn't presenting the outlines of specific myths. In fact his tendency was to jump all over the map, presenting fragments of myths to make his points about the function and meaning of myth. He had an ideological axe to grind, which at times even led to re-writing the myth to fit his pattern. Mary Lefkowitz states in her article "The Myth of Joseph Campbell" in *The American Scholar*:

So perhaps it isn't fair for a specialist such as me to complain that Campbell overlooks details or occasionally gets a mythological fact wrong. Does it really matter that he thinks that Telemachus went to ask the god Proteus where

his father was, when in fact it was his friend Menelaus, and that Menelaus was not looking for his father but rather seeking to learn from Proteus about how to get home? Shouldn't we classicists be grateful that Campbell believes the Odyssey still has something important to say to people living in the modern world?

Campbell stated repeatedly that mythology was a guide to living our lives, and that the power of myth was its power of personal transformation. One of the most common critiques of Campbell was that his catch-phrase "follow your bliss" was a validation of the cult of self development represented by the proliferation of personal development techniques of the seventies (EST, Transcendental Meditation, etc.).

Campbell's most adamant critics (among whom I include Gill, Lefkowitz, and Wauck) state that Campbell's version of the hero myth validated what Lefkowitz called "the unexamined yuppie life".

Another criticism of Campbell was anti-Semitism. Partly the charges come from accounts of personal conversations by people who knew him. But it partially arises from his frequent criticism of the growth of the Yahweh cult.

Campbell places a great deal of emphasis on the victory of the Yahweh cult (Judaism) with its Temple and laws over the Baal cult, which he viewed as having a thrust more in keeping with the true meaning of myth and ritual. Lefkowitz points out, accurately, that the Yahweh cult made some improvements over the Baal cult, like the ending of human sacrifice.

Interestingly I find some of the most serious criticisms of Campbell to come from one of the more sympathetic analysts of the works of Campbell, Robert Segal. In his article in *Christian Century* Segal observes that the popularity of *Hero With a Thousand Faces* peaked in the sixties, before the modern "yuppie" existed.

After stating that the appeal of Campbell is his romanticism of mythology as a sort of collective Bible for humanity, Segal goes on to list seven flaws in Campbell's body of work, including dogmatism and inconsistency (often to the point of contradicting himself in the same work). After a pretty thorough critique, Segal ends on the note that "Campbell's work is an important introduction to myth. It is simply not the last word".

Summary and Conclusions

I spent the entire time I was researching Campbell swinging back and forth like a pendulum. I would be drowning in Campbell's fragmentary presentation of dozens of myths, and trying to untangle what was actually occurring in the myth from his often heavy-handed ideological

analysis of the "universal truth" of the story line - then he would come up with a beautiful, stirring, poetic observation which would make me understand the popularity of the Campbell interviews.

I find a great deal attractive about Campbell the eclectic- hanging out in cafes and bookstores in Paris, going to art shows, chatting with Krishnamurti and later Alan Watts. The rebellious artist who scorns the dead academic world of rules and regulations is an archetype in itself, and Campbell lived this role, and was the hero in his own creative myth.

In the final analysis I now think of Campbell as more a literary figure than an analyst of mythology. Once I came to that conclusion, reading his work, whether books or interviews, became a lot more enjoyable. It's sort of like reading Jack Kerouac. If you want fresh, spontaneous approach to the English language, and interesting observations from an artist who is an active participant in his environment, Kerouac's work can be great reading. If you are looking for coherent philosophy and sociology, go elsewhere.

Campbell, like a great number of critics and literary figures, had a vision of the modern world as decadent and out of touch with its spirit and traditions. At its worst this can lead to a sort of "noble savage" stereotype, a notion that somehow earlier peoples were wiser, and that science and bureaucracy ruined it all for us.

Each society has its own myths, its own rules and laws, and its own institutions, and the tension between creativity and institutionalization is always there. Romanticizing the simpler mysticism of earlier mythological and religious traditions is attractive, but I don't believe it presents a very accurate picture of the history of myths.

In general there is enough overlap between the thinking of Joseph Campbell and a lot of the New Age personal transformation notions, that I believe Murray Bob was justified in comparing Campbell and the New Age movement. But understanding myth, metaphor and ritual is critical to the understanding of human culture, and the Power of Myth interview series exposed thousands of people to an interpretation of the meaning and function of myth from a man who immersed himself in mythology for more than five decades. There is enough sweep and content in the Campbell books and interviews to provide a thought-provoking introduction to mythology, as long as his work is read with a critical spirit.

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TEACHING CRITICAL THINKING WITH NOVA VIDEO: THE BERMUDA TRIANGLE

by Randall Raymond, Georgia Skeptics

PBS's NOVA series has occasionally shown a somewhat credulous attitude toward paranormal claims. A good example of this was the show on psychic phenomena a few years ago that could almost have been written by Shirley MacLaine. The show on the Bermuda Triangle, however, first aired in 1976 and now available on video, is a classic example of how to make the debunking of a popular myth both interesting and entertaining.

Anyone who glances at the tabloids as they wait in a supermarket checkout line is probably familiar with the Bermuda Triangle story. A large, though unclearly specified, portion of the Atlantic Ocean is imagined to be the location of thousands of mysterious disappearances of ships and airplanes. Various authors have claimed that the area is a "gateway to another dimension", a base of operations for UFOs, or even, since it is in the same vaguely defined place where the continent of Atlantis is supposed to have sunk, the location of an

ancient Atlantean power plant. All these stories of disappearances and conjectures about their causes began with a few magazine articles in the sixties followed closely by a score of best selling books.

Although many of the popular explanations for the Bermuda Triangle disappearances were mentioned, the NOVA show went right to the heart of the matter and investigated the "mysterious" disappearances themselves. The way the producers of the show presented each claim and the evidence for and against it was very effective. Using clips from a commercial network special narrated by Vincent Price, and interviews with the best selling authors of Bermuda Triangle books, they would establish a disappearance claim in all its mysterious detail. Then they would try to track down the original sources of the claim, interviewing people who were actually on the scene, and presenting documents, for instance. Often this inquiry would reveal that the authors had simply quoted and embellished the claims of other authors and obviously had never gone to original sources themselves. Next they would go back to the authors and allow them to try to rebut the negative evidence just presented. These rebuttals would invariably be considerably less convincing than the original claims. Finally the show would offer alternative explanations for the disappearances. Effectively using the resources of the visual medium of television, they would do things like film the view from an airplane over the Bahamas to show how featureless the ocean is in that area and how easy it would be to become disoriented and lost. It would take a true believer indeed to watch this show and not have serious doubts about the secrets of the Bermuda Triangle.

It's not often that the mass media, especially television, does a good job presenting the skeptical point of view. This 1976 installment of NOVA, however, does just that. It's available on video on the shelves of some video rental outlets. I highly recommend it as a demonstration of how skeptical inquiry can be presented with nearly as much "show-biz" flair as paranormal claims, and as a painless way to introduce your more gullible acquaintances to critical thinking about extraordinary claims.

APOCALYPSE WHEN? BACK THEN!

by Mary Anne Long, Georgia Skeptics

The author of End-Times, James M. Efirm, states that many Christian religious groups today are needlessly preoccupied with the "end-times" as a result of a theological system originating in the teachings of John Nelson Darby (1800-1882) which misinterprets the apocalyptic books of the Bible.

According to Efirm, professor of biblical interpretation at Duke Divinity School, Darby's theological system, known as

dispensationalism, was based primarily on a very literal translation of the apocalyptic books of the Bible. Efirid presents evidence that this system is flawed by citing specific examples of misinterpretations of texts, preconceived meanings applied to certain prophetic passages, and verses taken out of context.

John Nelson Darby was a British clergyman who became the most prominent leader of a sect which rejected the formal ritual of the established church and placed much emphasis on the second coming of Christ, which was felt to be imminent. The Darbyists believed that the church was basically corrupt and therefore useless. When a literal interpretation of biblical passages was not possible, Darby and his followers determined what the "normal" or "plain" meaning should be. Efirid points out that Darby's biblical interpretation system failed to take into account that in most of the world's cultures prophetic oracles are understood to be poetic in nature and were never intended, even by the original writers, to be interpreted literally.

Since apocalyptic writings, such as those found in the book of Revelation and the last part of the book of Daniel were actually directed to the people in whose times they were written, Efirid believes that the prophecies contained in these writings have already been fulfilled.

Apocalyptic writing is a literary style which was widely used and completely understood by the people of the time in which it was employed. It developed in Hebrew culture in the post-exilic period and may, according to some scholars, have been the result of Jewish contact with Babylonian culture, especially Zoroastrian religion. This religion made extensive use of numerology, colors, astrological symbols, and other such devices. With the passage of time the apocalyptic outlook became an integral part of Jewish religious life.

The apocalyptic literary style began to decline about 100 A.D. as the Christian church began to enter the Gentile Greco-Roman world which did not understand this type of writing. As it declined, the key to understanding it became lost and the church began to apply it only toward "end-times" rather than as appropriate to contemporary times and events.

The symbolism employed in apocalyptic writing required no more interpretation by its contemporaries than today's political cartoons do for today's regular readers of newspapers. Everyone knew that beasts represented nations and heads on beasts represented rulers. Both numbers and colors had specific but symbolic meanings. Therefore, there was no real mystery in apocalyptic symbolism and imagery and no message requiring interpretation in order to be understood by a select few.

Some scholars believe that Zoroastrian teachings may also have influenced apocalyptic thought by advancing the view that there is a constant struggle in the universe . . . a battle between the forces of good and evil in which no one can remain neutral. While the struggle

continues, the righteous minority can do little but patiently endure cruelties, indignities, and various other types of persecution. But if those on the side of good remain faithful, they are assured that good will ultimately prevail. Apocalyptic ideology consistently teaches that the faithful must undergo a time of tribulation before divine intervention inaugurates a new age of perfect happiness.

It is Efrid's stated position that apocalyptic writings, especially in the New Testament, were not designed to teach how, when, why, or in what way the end of the world, as we know it, will come about. For those who believe in a Supreme Being, Efrid concludes the book with a positive message, but emphasizes that preoccupation with end-time prophecies, and attempts to use the Bible to predict when these events will occur, is a use for which these passages were never intended, and is futile speculation.

BOOK REVIEW

by Keith Parsons, Georgia Skeptics

Innumeracy: Mathematical Illiteracy and its Consequences, by John Allen Paulos, (New York: Hill and Wang, 1988) 135 pp.

A man suddenly thinks of an old friend that he hasn't heard from in some years. At that moment the phone rings: it's the old friend he just thought of. Such experiences lead many people to believe in mental telepathy. Striking coincidences also undergird much of the credulity directed towards the forecasts of palm readers, numerologists, and astrologers. The fortune teller predicts a serious medical procedure. Later that year you have gallstone surgery. Unless you are a clear-thinking Georgia Skeptic, that fortune teller is likely to get your business again.

The inability to recognize that such "impossible" coincidences are in fact quite common (millions of people will have "predictive" dreams, even if there is only one chance in 10,000 that a particular dream will match some future event) is a symptom of what John Allen Paulos calls "innumeracy": ignorance of basic mathematics and the lack of fundamental mathematical skills. Paulos argues that the innumerate is just as handicapped in a complex, high-tech society as the illiterate. Ironically, though, while hardly anyone is proud of being illiterate, many people flaunt their innumeracy. Fear and hatred of mathematics are common, even among the otherwise well educated.

However, Paulos does not bore us with stern lectures about the evils of innumeracy or hand-wringing jeremiads on the

woes of the public school systems. He has the true teacher's gift of making us WANT to learn what we need to know. Leaden, lifeless equations are replaced by clear explanations and genuinely interesting applications. Why, one cannot help but wonder, isn't math taught this way in the schools and colleges? Why, Paulos asks, should graduate-level mathematics education in the United States be first-class while it is mediocre at best at more basic levels? He suggests some answers and possible solutions in his chapter "Whence Innumeracy?".

Of particular interest is Paulos's chapter on pseudo-science. He cogently argues that innumeracy, especially ineptitude in calculating probabilities, lies at the heart of much pseudoscience. For instance, Wilhelm Fliess, the inventor of biorhythmic analysis, was fascinated by the numbers 23 and 28. He impressed his friend Sigmund Freud by showing that any number can be attained by adding or subtracting the appropriate multiples of 23 and 28. However, as Paulos points out, ANY two numbers that are relatively prime (have no common factors) can be used to express any other number.

The profound and pervasive influence of simple ignorance on the course of human life is one of Innumeracy's most important lessons.

QI GONG

by Dale Beyerstein, British Columbia Skeptics

Skeptics are always accused of being closed-minded, and not examining the evidence in favor of paranormal claims. On the face of it, this charge seems to have some validity, since, first, so few psychics and miracle mongers are tested under proper conditions, and second, those who are tested make such fools of themselves in the process it would appear that skeptics single out the worst of the lot and ignore the good ones. However, this accusation can be seen to be unfair when one examines the lengths skeptics are prepared to go to test the best of the psychics, only to be rebuffed.

The BC Skeptics discovered recently that the most renowned miracle monger in China, Dr. Yan Xin (pronounced "Yen Shing") was on a tour of the United States. Dr. Yan practices a traditional Chinese health technique, Qi Gong (pronounced "chee gong"), which consists primarily of breathing exercises. Many protoscientific, vitalistic medical schemes identify air with the elan vital, having started out with the perfectly sensible observation that dead people don't breathe. (Remember that the God of Geenesis created Adam by making a clay statue and breathing air into him.) However, some medical practices have advanced beyond these rather jejune beginnings.

The modern Qi Gong resurgence in China has followed the usual pattern when New Age types rediscover old, discarded medical practices. When we confine ourselves to comparing the old system with modern medicine on the criterion of which is more efficacious in curing diseases, even the New Ager with his head buried farthest from the light has to admit that western medicine wins hands down. So, if the old system is to fill any sort of niche, it has to promise wild and wonderful things which the local GP, suffering under the yoke of science and Colleges of Physicians and Surgeons, refuses to offer. Thus Qi Gong masters, including Yan Xin, have promised cures for cancer and AIDS, as well as claiming to show patients how to live more than 900 days without eating, and to be able to alter the biochemical properties of substances from several hundred miles away.

When the CSICOP executive council visited Beijing in 1988, they tested a Qi Gong master with a simple double-blind protocol (Skeptical Inquirer, Summer 1988, p. 368): The master was placed in one room, and a subject, whom the master agreed was sensitive to external qi (which can be sent from a master to a subject, and will cause the latter to writhe around), was placed in another, with no communication between them. There were ten three-minute trials. For each trial, a coin was flipped. If it came up "heads", the master would transmit qi for 15 seconds; if it came up "tails" he would not transmit qi during that trial. The subject's writhings were completely uncoordinated with the transmissions of qi, thus demonstrating that this Qi Gong master at least relied on the placebo effect for his powers. Of course, Yan Xin was nowhere in the vicinity when CSICOP offered this test to Qi Gong masters, so he never participated.

When we heard that Yan Xin was touring the U.S., doing healing performances that would put Peter Popoff to shame in front of Chinese Student Associations on U.S. college campuses, we sent a letter to Professor Wu Xutian, who was arranging Dr. Yan's U.S. tour. Professor Wu's letter is reproduced below:

LETTER to BC Skeptics

September 2, 1990

Thank-you for your letter of August 8, 1990. I think your friends never connected with some real Qigong masters in China perhaps for political reasons.

I am sorry to say that Dr. Yan Xin and I are not interested in the very low level test which was very popular in China ten or fifteen years ago. He is busy on some cooperating research subjects with several important organizations in the U.S.

Please read the materials I sent to you. It would help you and your colleagues to understand the situation.

Sincerely,

Wu, Xutian
Department of Agricultural Engineering
University of Illinois, Urbana-Champaign

Dr. Wu is probably right on two of his points:

1) Dr. Yan treats high Communist Party officials, and regularly tours Hong Kong, Japan, and now the U.S., as an emissary of the Chinese government, showing the latest in Chinese medical progress. What an embarrassment it would have been if Dr. Yan failed as dismally as Dr. Lu, the Qi Gong master tested by CSICOP. So, a natural explanation of Yan Xin's absence from any of the places CSICOP visited in China, and the failure of people to talk about him in their presence, might be politely described as "political reasons."

2) Dr. Wu is also right to describe our test as "low level", if he means by that either that it doesn't involve any "high-tech" equipment, or that it does no more than establish whether the claims of Qi Gong masters can really be verified. But he is dead wrong to assert that these types of tests "were very popular in China ten or fifteen years ago". First of all, Dr. Wu sent us no reference to such a test being performed on any Qi Gong master, despite sending us volumes of papers describing other sorts of tests. Second, our independent survey of the literature turns up no evidence of such tests being conducted. We have sent Dr. Wu a challenge to send us a published report describing this sort of protocol being used on Dr. Yen, and I predict he cannot deliver.

Furthermore, one of the purposes of CSICOP's visit to China was to meet with scientists who were critical of exaggerated claims of the paranormal, and to discuss with them how to conduct proper experiments to test psychics. They were told that the test they conducted on Dr. Lu had not been done previously in China (cf. article cited above,, p. 368). Many tests using sophisticated instruments to detect qi and psychic powers have been done in China; but it is obvious from the literature sent to us by Dr. Wu that the lessons that CSICOP taught researchers in the U.S. back in 1975 were not picked up in China.

Sophisticated instruments and a complex protocol are a prime breeding ground for fraud and self deception. In North America and England researchers with solid reputations, such as Targ, Puthoff and Taylor believed in the psychic power of Uri Geller after conducting complex experiments without first doing the "low level" ones to see if the powers were really there. Consequently, these scientists, with impeccable credentials in their own scientific fields became laughing stocks when their paranormal research was subjected to scrutiny. It appears that the scientific establishment in China will continue to suffer the same sorts of embarrassments at the hands of Yan Xin, until he falls out of political favor, and loses his current protection from proper scientific investigation.

The above article was reprinted from the Rational Enquirer, The Skeptics' Newsletter for Western Canada, Volume 4, No.2, November 1990. Dale Beyerstein is a philosophy instructor at Langara College, and is a Director at Large of the BC Skeptics.

NCAHF POSITION PAPER ON ACUPUNCTURE

After nearly three years of literature evaluation, analysis and peer review, the National Council Against Health Fraud (NCAHF) Board of Directors has approved a position paper developed by its Task Force on Acupuncture. The position paper describes acupuncture's theory and practice, current use in China, scientific status, practitioner training, hazards, legal status, and makes recommendations. NCAHF's findings are summarized below:

NCAHF believes: 1) acupuncture is an unproven modality of treatment; 2) its theory and practice are based on primitive and fanciful concepts of health and disease that bear no relationship to present scientific knowledge; 3) research during the past twenty years has failed to demonstrate that acupuncture is effective against any disease; 4) perceived effects of acupuncture are probably due to a combination of expectation, suggestion, counter-irritation, operant conditioning, and other psychological mechanisms; 5) the use of acupuncture should be restricted to appropriate research settings; 6) insurance companies should not be required by law to cover acupuncture treatment; and 7) licensure of lay acupuncturists should be phased out.

The above information was reprinted from the NCAHF Newsletter, Vol. 14, No. 2, March/April 1991. The entire acupuncture position paper will be published in the Clinical Journal of Pain in July 1991. Copies may be obtained from NCAHF at a cost of \$1, plus either 50 cents for postage and handling or a stamped self-addressed envelope. Order from NCAHF, PO Box 1276, Loma Linda, CA 92354.

THE END