The Enchanted Skeptic

Vol. I Issue I

December 16, 1990

N.M.S.R. Begins

New Mexicans for Science and Reason has long been needed. The group brings New Mexicans concerned about pseudoscience, paranormal and mystical beliefs, and the need for clear thinking into a network of similar local and regional groups based loosely on the CSICOP (Committee for the Scientific Investigation of Claims of the Paranormal) model. Such groups have sprung up and flourished across the country, and it is time we have our own in New Mexico.

Its formation also represents fruition of a goal I had long supported but never had the time to work on myself. I felt guilty that although I edit *The Skeptical Inquirer*, with its international circulation, right here from my home in Albuquerque, I had never done anything to initiate a New Mexico group.

New Mexican subscribers to The Skeptical Inquirer had met on two occasions revolving around visits of the irrepressible magician/author/investigator James Randi. But a permanent local group had not emerged. That is why I was so pleased at the large turnout and the enthusiasm of the organizational meeting onMay 16, at the New Mexico Museum of Natural History. That meeting, and the subsequent monthly lectures and meetings at the UNM Law School show our group is here to stay. I am delighted that John Geohegan, with his experience heading somewhat similar groups, has agreed to be chairman. I am equally pleased that we have the enthusiastic John Smallwood as Santa Fe coordinator, and that Pen LaFarge agreed to take on the duties as editor of this newsletter.

Furthermore, numerous physicists, chemists, engineers, psychologists, geologists, paleontologists, and other specialists and experts up and down the Rio Grande Corridor have agreed to serve as technical consultants. New Mexico is blessed with abundant scientific expertise, and it is a good sign that so many of these scientifically oriented people are taking part. Perhaps we can publish a list in the next newsletter.

I am also pleased to report that three national figures have agreed to serve as consultants to New Mexicans for Science and Reason. They are James Randi, Philip J. Klass, and Steven N. Shore.

Randi I've already mentioned. He has visited and lectured in New Mexico many times. During his last visit, in early 1989, he spent a week in Santa Fe. After being bombarded by the ever-present evidence of channelers, healers, crystal-ologers, and other special brands of Santa Fe pseudoscience, he told me, "Do we need a group here!" New Mexico is also home to several of the world's most notorious flying saucer and UFO claims, and Phil Klass is by far the leading skeptical expert on them. His expose of such hoaxes as the so-called Majestic-12 papers, which purported to document crashed saucers in New Mexico in 1947 and 1950, has brought needed reason and responsibility to that wild set of subjects. Shore is an astronomer with New Mexico connections and wide scientific and philosophical interests. He was on the physics faculty at New Mexico Tech until this past year, when he left to take a position at the NASA Goddard Space Flight Center in Maryland.

The main work of our group, however, is local. We can best articulate the goals, needs, and tasks facing us here in New Mexico. In the meantime, I'm delighted that we are off to such a good start and look forward to widening participation to many more people up and down the Rio Grande.

—Kendrick Frazier

Welcome

Welcome to our first newsletter. I envision this newsletter as a way for us to keep in touch with each other and as a way to interest others. We live in a state which has a large population of scientists. However, the scientific attitude does not translate itself to the average man and woman on the street. This is especially true in the Land of Enchantment where we have an extraordinary agglomeration of mystics, New-Agers, gurus, alternative healers, old-fashioned occultists, and all their hangers-on. I would like to use the newsletter as a counterbalance to their influence; a newsletter to be given out to libraries, newspapers, and schools, knowing that they will learn something, that it will teach critical thinking, and that it will be applicable to their intellectual lives. Thus, the newsletter's mandate: to spread appreciation of rationality, abstract science, and scientific thinking.

What I do not envision: I do not see the newsletter as being in contention with *The Skeptical Inquirer*. If we try to match their investigations into U.F.O.'s, or remote viewing, or E.S.P., we will come out a poor second best. However, if we give information and critiques of our local phenomena—cults, god-men, alternative healing, psychic archeology, the New Age—we will create our own niche, one which no other local-chapter newsletter addresses. For example: Joseph Szimhart has agreed to write a continuing column on cults and the New Age.

There will be other continuing columns for letters to the editor, for short opinion and humorous pieces, and for clippings from local newspapers (please send them in).

All of which is not to say that articles on other subjects are not welcome, merely that we should make ourselves relevant to our fellow New Mexicans. In that way we will sucker them in, and

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The Enchanted Skeptic is the official publication of New Mexicans for Science and Reason, a non-profit, organization dedicated to rational and scientific inquiry into pseudo-science, the occult, and the paranormal. We also encourage scientific inquiry, scientific education, critical thinking, and the use of reason in examining important issues. Opinions expressed in The Enchanted Skeptic do not necessarily represent those of New Mexicans for Science and Reason or of its board.

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The New Mexicans for Science and Reason meet the second Wednesday of every month. Meeting times and place are given in the newspapers' calender sections. Guests are welcome, as are new members. Dues are $25 per annum and run from July 1 to june 30. The dues support this newsletter and the activities of the group. Please send dues to: J.J. Miller, 211 Adams N.E., Albuquerque, NM 87108. If you are a member of the group but have not yet paid your dues, please do so.

our devious and underhanded organization will grow into a massive conspiracy of rationality.

One last note, please send in your writings double-spaced in letter quality print. (IBM or Mac diskette if fesable) and remember that they should fit into a newsletter, not a doctoral dissertation. J.P.L.F.

Creationist Speaks at October Meeting

After hearing Spencer Lucas, curator at the New Mexico Museum of Natural History, speak on creationism in August, our members expressed interest in hearing a creationist. I called John Oller, creationist Professor of Linguistics at UNM, and he arranged for us to hear Dr. Dmitri Kuznetsov, a Soviet creationist who was to arrive in Albuquerque the day of our meeting. My understanding with Oller was the Dr. Kuznetsov would give a non-technical informal talk recounting his experiences promoting creationism in the Soviet Union, and my hope was to avoid the usual attacks on evolution and resulting counter-attacks.

In my introduction, I read a few sentences from page 7 of Science and Creationism; A View from the National Academy of Sciences, which briefly described the creationist position and the academy's position that creationism is an invalidated hypothesis. I then noted that creationists believe their position stands on its own scientifically and requested that we simply acknowledge our differences and thereby avoid controversy.

Dr. Kuznetsov, thirty-five, claims three advanced degrees; MD in Internal Diseases in 1978, PhD in Biochemistry in 1981, and Doctor of Science in 1989. He speaks with a pronounced but understandable accent. Worse than his accent is his elaborate structuring of sentences and ideas, which seem to skirt the point he is trying to make. He spoke to us of the necessity, in previous years, of writing very specialized technical articles that few could understand so as to avoid repression; perhaps the technique is difficult to discard and explains why he is so difficult to understand.

Very little of Kuznetsov's talk was directed to the informal, anecdotal information for which I looked. He spoke of *Protestant* magazine, which I believe he edits, as having a circulation soon to reach 400,000. He writes a regular column, "Science Without Atheism", for the magazine, and I had hoped to learn what kind of information he includes, how atheism has presumably been forced into science, what kind of responses he gets to his column, whether there's any attempt to squelch his writings, what kind of organization the creationists have, and so on. He spoke of Duane Gish, a U.S. creationist, his visit to Russia, and of paying $5,000 per minute for him to appear on a televised debate. We also learned that John Baumgardner, a Los Alamos creationist, was scheduled for a trip to Moscow; we learned little else.

In my introduction, I had implied that Kuznetsov held the usual creationist beliefs about a young earth, worldwide flood, etc. Although he didn't deny these beliefs, he said they were outside his area of expertise in molecular biology, and he would not speak of them. Most of his talk was very technical, difficult to follow, and devoted to attacking evolution. I will speak of two points he tried to make, but perhaps there were others I missed.

The first point, common among creationists, is that most genetic mutations are either lethal or harmful, and that it is therefore "statistical nonsense" to think that the animals we see today could have descended from protozoa. This argument plays on the random nature of mutations and ignores completely the non-random nature of selection which keeps the beneficial mutations, throws the others away, and goes on to build organisms well adapted to their environments.

The second point considered studies of an enzyme unfamiliar to me. Kuznetsov seemed to feel that studies of one enzyme, suggesting contradictory genetic distances between living organisms, were strong evidence against evolution. My understanding is that such inconsistencies merely indicate the foolishness of basing conclusions on one enzyme. The findings of molecular biology have provided remarkable confirmations of the evolutionary relationships determined by taxonomists; Kuznetsov's attempts to discredit evolution are feeble and misguided.

J.T.G.

Pseudo-Science and the Cult Phenomenon

By Joseph Szimhart

Recently, I gave a lecture on this topic for the New Mexicans for Science and Reason. Among the audience were several cult members who were more interested in challenging my career as an exit-counselor or "deprogrammer" than in adding anything of value . The cult members belong to the Unification Church, founded by Sun Myung Moon, and the Church Universal and Triumphant, led by Elizabeth Prophet (Guru Ma or "Mother" to devotees). It bcame obvious that the issue of cults is a loaded one, especially for these cult members, who were vehemently defensive. Cultists are most offended by two events: being called cultists and being confronted by deprogrammers.

It is most difficult (oops! there's a "cult" word again) to engage in dialogue with individuals who feel threatened by critical, rational discourse. This is the main hurdle in my job as an exit-counselor. Any criticism of the leader or doctrine is met with thought blocking cliched remarks that become the basis of arguement. Ques: How do you know she can see your past lives? Ans: She's a guru, an appointed messenger of the Masters. Ques: How do you know she is, can you prove it to me? Ans: You have to experience it in your heart through your Higher Self. Ques: My heart tells me she's a fraud. How do you explain that? Ans: Maybe this path isn't for you (read: You have not attained a high enough consciousness to see it)...and so on. When it comes to their leader, doctrine, or opponents, cultists think in cliches derived from unassailable revelations.

For instance, the word "cult" originally a neutral noun, is deemed by cult members to be a pejorative that automatically classifies members of such groups as kooky or misguided to the general public. Indeed, the public is often naive; not all cults are dangerous. As a defense, therefore, the cult member accuses his opponent of doing what they themselves are accused of doing, i.e. using cliches to label what is not properly understood. To some extent, the cult member is correct in this assessment because most of society has a naive idea of what cults are or teach. However, over the years, the cultist's cry of "cult is a pejorative" has become another cliched response in and out of courtrooms and talk shows. The appropriateness of the term is dismissed in the cultist's mind. It remains for the non-members and critics to qualify the term "cult" with such adjectives as "deceptive", "destructive", "benign", or "totalistic." It also remains to clarify the adjectives with facts. One notorious occultist from the nineteenth century, HelenaP. Blavatsky, once stated that, "running into a fact is like running into a pitchfork."

Like "cult", the label "deprogrammer" has become cliche which is poorly understood. Cultists often stereotype deprogrammers as "faith breakers; brutal, mercenary, and conspiratorial against all religion". To some extent this image has been promoted by the media (e.g., the film "Split Image" starring James Woods), and there have certainly been deprogrammers who have lapsed into that kind of behavior. "Exit-counseling" has been the term applied since the early eighties to the non-coercive process of informing and deconverting cult members from destructive or potentially destructive situations. Deprogrammings in which abductions and emotionally laden arguements occur are rare these days. Yet cultists hang on to these stereotypes in order to cloud the real issues, and to create fears in members who may wish to visit their families. Therefore open discussion with cultists is often frustrated for concerned families.

Pseudo-science has played a major role in cults deemed deceptive, destructive, and/or totalistic by historians and critics. The logic is this: If you can believe that Guru Babananda (a generic guru) can manifest gold out of "ethers" and read your mind, then you can believe that he's God incarnate. If you have any doubt that this is true, you won't be able to realize the truth of who Babananda is, nor witness his miracles or "grace". The key here for the devotee is not whether he or she can prove or critically observe alleged miracles or mind reading, but whether he or she will believe without testing the proclamations or evidence. This type of devotee is considered more highly developed spiritually in all totalistic cults. Once this total unquestioning submission is evoked, only the strongest evidence will shake a devotee's belief. As in the "Wizard of Oz", the Totos of this world must pull the curtain on the human being manipulating the image of the god-man.

Robert J. Lifton (Thought Reform and the Psychology of Totalism, 1961) and others have observed that cults often proclaim a "sacred science" within their teachings. If one questions the effectiveness of a mantra or a decree in the name of the Lord, one is not only unholy but also unscientific. No question is allowed of "the science" of the occultist, the guru, who claims to have hidden (occulted) powers. These are "laws" that only he or perhaps a few others can understand. Such laws are claimed to be more precise than anything "mundane" science can dream of: the Law behind the laws of nature, so-to-speak. Every cultist believes eccentric claims regarding their leader's powers. None has provided proof. However, the issue is not whether such powers exist, but rather how such claims to power are used to manipulate the devotee.

Myths, metaphors, and miracles have been the substance of mankind's religious experiences. We are often confronted with unverifiable claims in religious experience, such as when the weather seems to change after a shaman conducts a rain dance. For better or for worse, much meaning is derived from such experiences. The skeptic's value lies not in debunking the actuality of such claims but in critiqueing the supporting evidence. In other words, if a cult member cannot show proper evidence that Guru Babananda can read minds, then there is no reason to believe. This does not mean that Babananda can never read minds. It is merely unverifiable without Babananda's submitting to stringent testing. In such cases, belief is not compelled by the evidence because cult leaders never submit to such testing. They elicit belief through the manipulation of unwary seekers. The seeker learns that the mere thought of submitting the guru to testing is blasphemy which shows spiritual weakness.

Hundreds of destructive cults have been documented. The cults fall into many categories: Bible based, commercial, therapy, eastern, New Age, and healing. A destructive cult can be as

small as two people in which the manipulation and abuse is not unlike some marriages. Deception, psychological coercion, and totalism are often hallmarks of both cults and of aberrant cliques within mainstream organizations. Some observers speculate that there are well over three thousand cults in America, however supporting evidence is thin. In future columns I will examine specific aberrant cultic practices and beliefs from my viewpoint The controversy is not about religion or religious persecution, as totalistic cults would have us believe. The issues are conduct, honesty, and making an informed choice. I intend to bring healthily skeptical information to bear on each topic as well as to give reliable sources for further research.

Willa Appel. Cults in America (Henry Holt, 1983)

Dusty Sklar. The Nazis and the Occult (Dorset Press, 1989)

Robert Cialdini. Influence (Quill, 1984)

Spencer Lucas speaks to N.M.S.R.

On August 8, N.M.S.R., as its premier program, presented an address by Spencer Lucas, Curator of Paleontology at the Museum of Natural History. Mr. Lucas previously had been invited by an Albuquerque Baptist church to debate a creation 'scientist'; we asked him to talk to us with the intention of our giving him support. As it turned out, the debate was not held because of the odd conditions imposed by Lucas's debate partner. However, we were given a most interesting lecture on the differences between experimental science and historical science, and then between science and creation 'science'.

Lucas began by saying that creationism in its pure state ignores science. However, creationism has a sub-set, creation 'science' (to Lucas, an oxymoron). Science is commonly thought of as 'experimental' science, done in the laboratory—biology, chemistry, physics. Experimental science, or 'high' science, follows the paradigm of hypothesis, experiment, result. Lucas's field is an historical science, that is, a science in which the study of hypotheses concerns processes which are finished. Such sciences include paleontology, geology, archeology, and astronomy.

The obvious problem arises: if it is finished, how does one test one's hypothesis? Thus, although everyone in the creationist-evolutionist debate agrees that there is only one history which is unique to this planet (a legacy of our JudeoChristian heritage), creationists question the historical sciences and the worth of their findings.

Historical science engages this paradigm: one studies the only evidence available, the patterns left behind; one then infers therefrom the process of what is being studied—in this case, evolution. Such science cannot show the process as experimental science can do; one cannot create a dinosaur. The process has been lost. One can, however, state hypotheses (a testable prediction; a statement with consequences) which will explain the patterns. However, there remain two problems— there is always more than one process that can explain the historical patterns, and the 'when' of the matter is often open to question. Historical science, therefore, is always lacking important information and is always looking for it.

The field revolves around, simply, pattern analysis.[1] Taking from Karl Popper, Lucas said testing a pattern means falsification, that is, the hypothesis can be shown to be false if it is false. There is no proof, he said, in historical science, one can only show that the results do or do not fit the pattern.

Creationism attacks this soft underbelly of science, Lucas continued: as there is no proof, there can be much disagreement as to the process. For instance, there are many sects of Darwinians, each of which looks at different data and scales. For many evolutionary questions—e.g., how did Eohippus become Equus—we well never know the answer. So if one wants one answer, one proven answer, an absolute truth, historical science cannot provide it. It is precisely this sort of answer that the creation 'scientists' desire and demand, and why it is they feel that they can denounce science and its findings. Historical scientists cannot provide refutation of all possible processes. The fossils cannot speak, we must speak for them.

Lucas returns that creation 'science' is not scientific because it does not test, it simply amasses evidence to support its proposed processes. Creationism should, but does not, seek data—patterns—which constrain its proposed processes.

Lucas gave an example of such data-seeking when he told of geologists who sought out 'shocked' quartz to determine whether the hypotheses concerning the extinction of the dinosaurs by meteorological impact was demonstrable (the quartz was found).

Science, true science, Lucas summed up, gathers data to falsify its hypotheses, to constrain them. Creationism proposes untestable hypotheses, then picks and chooses its evidence to support the hypotheses. Science is a corrective process; creation science in an absolutist process.

At the end, because of disappointment expressed by several of our members, Lucas offered to resume the debate against his creationist foe if we would find a neutral site, a neutral moderator, and engage the creationists in agreeing to reasonable conditions. J.P.L.F.

1. [During the evening, many questions and doubts were raised by the audience, as Lucas had invited. It was at this point that Marshall Berman, one of our members, spoke up to say that with modern computers, one is increasingly able to create models of great changes (great in both time and space) which can be tested in the laboratory, as it were. Examples of this are weather and continental drift. Dr. Lucas's reply was, yes, but such models are still dependant upon the patterns entered and as yet are often badly flawed, whereupon he gave back the example of weather.]

Joseph Szimhart Speaks at September Meeting

The subject for the September meeting was Cults and Pseudoscience. The speaker, a member of our group, was Joseph Szimhart. Popularly described as a "deprogrammer" he prefers the term "exit counselor". Much of Szimhart's address was devoted to describing the variety of pseudo-scientific beliefs held by various cult groups in the United States. Thus, we heard about storing the energy of chanting in a "battery" which could then be used to protect the earth, attempts to levitate, the Maharishi's unified field theory, a hollow earth from which UFO's emanate, electronic grids capturing human souls, and other equally bizarre beliefs. Although it wasn't proven by statistics,

it is clear that scientific illiterates are particularly susceptible to the arguments of cultists.

Joseph Szimhart's name is well known to cults across the United States, and although we had very little publicity, the audience included two members of the Unification Church and two members of the Church Universal and Triumphant. One member objected to use of the term "Moonies" and thought the Unification Church should not be classed as a cult; this despite the fact that the church was only mentioned in passing and not singled out. Another man, who is State Director of the Unification Church, was interested in attacking Szimhart's profession. He had been unsuccessfully "deprogrammed" years ago, and had legitimate complaints about how he had been treated unfairly and emphasized the ethical nature of his own work.

Members of the Church Universal and Triumphant accused Szimhart of lying and participating in a kidnapping a few weeks previous to the meeting. Our speaker met all such charges calmly and with comprehensive knowledge of the beliefs of the various cults as well as their methods of operation. The charge of kidnapping was simply quieted by challenging the cultist to name the person who had been kidnapped.

Although the cultists managed to divert the bulk of the questions and answers away from the topic of pseudoscience, the power of facts and reason to meet hostile attacks was clearly demonstrated, and the audience was treated to a fascinating, though unplanned, confrontation.

John T. Geohegan

Russian Biochemist visits N.M.S.R.

Dmitrij Kuzentsov, a Russian Biochemist and Neuroscientist spoke at the meeting of "New Mexicans for Science and Reason" on October 10, 1990. Dr. Kuznetsov, who works at an applied toxicology laboratory in Moscow, holds three doctorates, MD, PhD, and DSc, and is the recipient of two soviet prizes. Dr Kuznetsov is no longer a communist, having converted to creationism eight years ago and to theism two years ago. Indeed, he was introduced at the meeting by a member of the board of directors of the Institute for Creation Research, Dr John Oller. Dr Oller is a faculty member in the UNM Department of Linguistics.

Dr Kuznetsov spoke about Creationism, focusing on presenting one particular refutation of evolution theory. He declined to speak about any other tenets of "scientific" creationism, such as the age of the earth or the Great Flood, as he is not expert in those areas. His biochemical arguments against evolution focused on what he called the "Homology Principle." The interpretation of this principle, which he described "all" evolutionists as believing, appeared to be this: "The more closely related two species are, the more identical all molecules within them must be." Further, he believes that any exception to this, however small, would invalidate all of evolutionary theory. He then stated that a particular enzyme, Creatine Phospho [sic] Kinase, had its greatest structural similarity between the housefly and the African elephant. He appeared to feel that this was a major refutation of evolutionary theory.

Dr Kuznetsov's other biochemical argument against evolution appeared to be directed against the laboratory technique of nucleic acid hybridization. This method, developed by a biochemist at the University of Illinois in the '50's, has been heavily used in molecular biology, and much experimental data derived from its use was published in the '60's and '70's. Dr Kuznetsov has both theoretical and practical objections to its use and interpretation for evolutionary research.

Dr Kuznetsov also emphasized two "facts" that he believes add to his argument: most mutations are lethal and only a tiny fraction of the total genome is actually expressed in any organism. He stressed that there are "over forty-five thousand" known kinds of mutations, and that fewer than 2% of them were "non-dangerous", he stressed that "less than 3% of the total genome of any organism is expressed." The logical relevance of all of the above points to a refutation of evolution was not made clear.

Gaynor C. Wild

A Response to Dr Dmitrij Kuznetsov, and a review of his talks October 10 and 15, 1990.

By: Gaynor C Wild, PhD, Associate Professor of Biochemistry and Neurology, UNM School of Medicine

I attended both of Dr Dmitrij Kuznetsov's talks, the one detailed above, and the one presented in the Anthropology building on October 15. The latter was sponsored by the Biochemistry, Cell Biology and Biology Departments of UNM, as an exercise of First Amendment rights. Dr. Kuznetsov's intent was to be more technical (i.e., "biochemical") in the second talk. A total of three faculty members and two graduate students from the sponsoring departments attended, according to my count. Both of my colleagues got fed up and left before Dr Kuznetsov finished, leaving me and the graduate students.

Dr Kuznetsov made several specific, technical statements about his own experiments and about biochemistry. He also made, or implied, a few general points about his overall approach and his logic. His biochemistry, on the whole, was quite bad, being sometimes out of date, sometimes incorrect, and sometimes misleading. (His only published work available at UNM is also poor.) His comments about creatine kinase (CK) [see above] for example, were at best misleading and irrelevant in any case. I was not able to check his accuracy, as the main computer for protein sequences in Washington, DC, does not have information on CK in the housefly and the African elephant. But even if these stated "facts" are correct, it would not support his point, as meaningful comparisons between species must be made primarily at the level of the entire organism, not for one protein. He approached the issue from the wrong direction.

The technique of nucleic acid hybridization, wherein one compares two different nucleic acids in the laboratory by encouraging them to form an alpha helix in vitro, also came in for attack from Dr. Kuznetsov. While some of his comments, had they been supported by data, might have been relevant criticisms fifteen or twenty years ago, they are irrelevant now. The current data of greatest value to evolutionary theory is

knowledge of total structure, both of important biological molecules and of the genes for these molecules. This data, now available for many hundreds (possibly thousands) of molecules, allows exact comparisons across species. One can study not only the structure but also the function of a particular molecule. Such comparisons are now available for a large fraction of the most important molecules in biology; enzymes, hormones, and receptors.

Further, the work of contemporary biochemists, most notably Shosaku Numa in Kyoto, has allowed direct experimental testing of evolutionary change. Dr Numa, and others, have duplicated in the laboratory the kinds of mutations that occur over great periods of time. To summarize an enormous amount of experimental data, mutations generated in the laboratory as tests of evolutionary predictions have produced the same conclusions as those previously inferred from the study of naturally occurring changes in molecular structure across species. This work is of incalculable value in the evaluation of evolution.

Two other, minor points that Dr Kuznetsov emphasized about the amount of the genome that is expressed in any organism and the frequency of lethal mutations [see above], are also irrelevant to his point, as many evolutionists have similar beliefs. These "facts" neither argue for nor against evolution; they are simply points about the "fine tuning" of the mechanism of evolutionary change.

Most surprising of all his stated "facts" was the statement that communism was based on Darwinism. Marx and Lenin both repudiated genetics, let alone Darwinism. They believed that an organism was determined solely by its environment. This belief led to later government support for Trofim Lysenko, which set back biology in U.S.S.R. for two full generations. At a time when Russia was the equal of any country in mathematics, physics, and certain branches of chemistry, they fell into third-world status in biology, precisely because of the anti-Darwinism of Lysenko. As the recipient of a Komosomol (Communist Youth) prize, Dr Kuznetsov should know that.

Some of his other statements, about being the first person to use reverse transcriptase, in 1985, and about no one's trying to isolate an expressed gene until 1987, are so outrageous as to warrant no specific comment. Any biochemist will instantly dismiss such claims: Baltimore and Temin won the 1985 Nobel Prize for discovery of the enzyme.

Most importantly, and most telling were Dr. Kuznetsov's, statements proving that he does not believe in science, itself. A scientist, is one who believes in and operates by the scientific method. This method, one of the most profound contributions of philosophy to the modern world, is at the center of all scientific research. It is above, and independent of, any particular person, idea, or fact.

Dr Kuznetsov stated that he "carries out experiments for the purpose of supporting creationism." He also stated that he interprets his experimental results by "faith." He tried to justify these statements by declaring that evolutionists also interpret data based on their "faith" By saying such things, Dr Kuznetsov exposes the most important (but not the only) fatal flaw in his work: his interpretations are not open to refutation or falsification.

All scientists, in order to be true scientists, must accept the possibility that their strongest belief, their greatest achievement, their favorite hypothesis, might be overthrown by new data. It can happen at any time. In this sense, all true scientists are ultimately agnostic on all issues, and are doomed to remain so throughout their lives. This does not mean that a scientist must be indecisive or can't have strong beliefs. But it does mean that he or she must always be open to the possibility of new data that makes a different case. Dr Kuznetsov, however, has his conclusion at the start of all his work. The conclusion is taken on faith, and therefore no data can overturn it. His conclusions will last as long as his faith does.

From the standpoint of those scientists and philosophers for whom there is nothing higher than science and the scientific method, these kinds of statements are profoundly offensive.

Dr. Kuznetsov is in fact trying to rationalize the performance of experiments for an anti-scientific purpose by calling the activity "biochemistry." By doing so, he insults every serious biochemist. Despite his three doctorates, Dr. Kuznetsov's work and his interpretations of his work had they been done at UNM would not earn my approval for a BS.

Letters to the Editor Albuquerque Journal Albuquerque, NM 87103

It may be 1990, but the Salem witch-hunts are with us again. I refer to the recent hysteria about Satanism.

Now, according to the Rev. Rob Carman, we must even suspect our mailman or our local store clerk as being closet Satanists (Journal, October 28). an innocent, fun holiday primarily for kids, such as Halloween, must be a devil's plot. At the very least we must censor school books (of course!) All this is fearmongering and modern urban legend being promoted heavily by those with particularly narrow fundamentalist views and is gullibly accepted by well-meaning but unthinking people and sometimes even news media. (Remember the "Satanic ritual" tire patterns on the West Mesa?)

Careful readers of your lengthy October 28 article will note that scholars and the Albuquerque Police realize that this stuff is mostly nonsense, exaggeration, and urban myth, but the casual reader may notice only the wild claims.

For readers who want something closer to the truth, I recommend articles on Satanic-cult rumor-panics by Virginia law-enforcement specialist Robert D. Hicks and sociologist Jeffrey Victor in the Spring and Summer Skeptical Inquirer, edited in Albuquerque and published in Buffalo, N.Y.; plus Victor's article "Satanic Cult Rumors as Contemporary Legend" in the Spring-Summer Western Folklore; and the following new books: Robert Hicks, In Pursuit of Satan: The Police and the Occult (Prometheus), Satanism in America. by Shawn Carlson and Gerald Larue, and the forthcoming The Satanism Scare, edited by James

Richardson, Joel Best, and David Bromley; plus Bromley's earlier Strange Gods: The Great American Cult Scare. I also urge readers to seek out an excellent column in The Wall Street Journal, "Pitchmen of the Satan Scare" (March 9, 1990), and Debbie Nathan's probing work of investigative journalism, "The Ritual Sex Abuse Hoax" in the June 12 Village Voice.

Sincerely,
Kendrick Frazier

Marshall Berman's Horrorscope November 1990

(Note: All advice applies only to the Northern Hemisphere. If you live in Australia, turn this page upside down.)

ARIES the Ram (Ides of March - Tides of April): Do not take unnecessary risks in romance. Lock your doors. Bolt your windows. Buy a gun.

TAURUS the Bull (Tax Day to Mother's Day): Stop talking this entire day. You're so full of bull, no one wants to listen to you.

GEMINI the Twins (May Day to June Spoon): Make up your minds! haven't got all day.

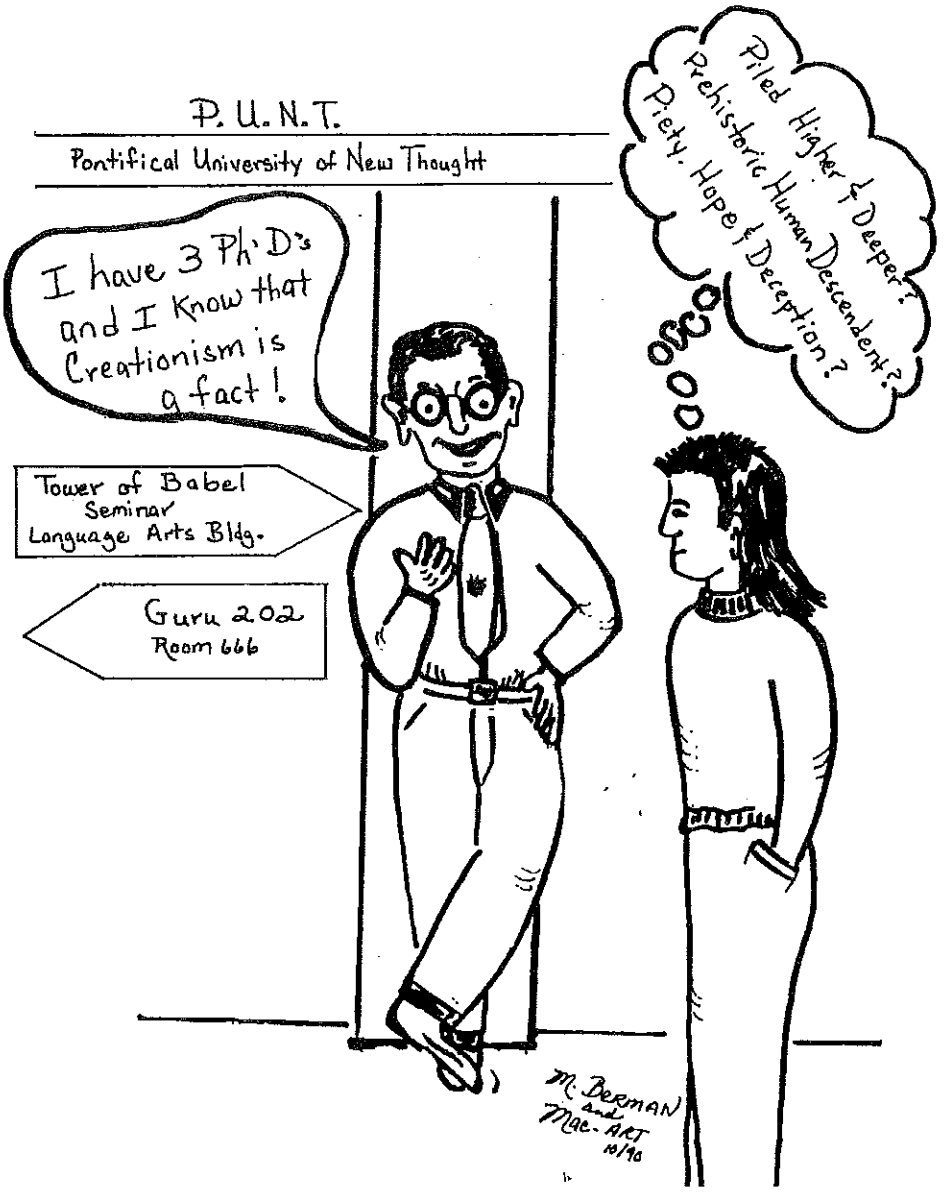
CANCER the Crab (Independence Time): Change your personality now. Put on your best clothes, take a cab to the worst part of town, and give your money away to strangers.

LEO the Lion (Summertime): Your problem is your diet and your lack of courage. Become a vegetarian or eat a vegetarian.

VIRGO the Virgin (Labortime): You've been single too long. Romance is coming today in the form of an exciting member of the opposite sex. If you're gay, turn this page upside down.

LIBRA the Scales (Time of Atonement): You're either overweight or a heavy thinker. Eat more and think less, or eat less and think more. Whatever turns you on.

SCORPIO the Scorpion (October 23 to a month later): If you want to know why people avoid you, look in a mirror. Get cosmetic surgery right away!



SAGITTARIUS the Archer (Thanksgiving to Winter): Cupid is coming to visit. Get in bed and stay there all day.

CAPRICORN the Goat (Christmas Vacation): The world is going to end for you. Send all your money and possessions to the name and address below. Then sit in the middle of your living room and wait.

AQUARIUS the Water Bearer (Inauguration Day to Valentine's Day): If you're a woman, it's time for a change. Divorce your husband and abandon your children. If you're a man, call 911!

PISCES the Fishes (Springtime): Don't drive today. The streets are going to be wet. Buy a boat. Grow some gills. Read Creationist literature.

CUSPS the Undecided (Someday or other day): You will never know what to do. Give up.

Do you wish to expand your mind, meet new friends? One possibility is the local community college. Santa Fe's offers courses in Developing Your Intuitive Self, Introduction to Your Personal Totem, Vivion Quest and Introduction to Aromatherapy.

If you are having problems with your life, but do not live in Santa Fe, or have run through all the advisors that Santa Fe has to offer, the television recommends Psychic Astrologers, who will counsel for problems concerning love, career, and money. Call 1-800-676-1000.

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Address Correction Requested