

# Science and Pseudoscience: Response

The article in the May 29 issue on pseudoscience, parascience and the establishment of a group to critically analyze paranormal claims has provoked strong reader response. In this sampling, many of the letters have been condensed for space reasons.



The story on the establishment of the Committee to Scientifically Investigate Claims of Paranormal and Other Phenomena brings welcome news. Too many cultists have been able to argue that "orthodox science" is ignoring or stifling unorthodox ideas such as ESP or Kirlian photography. In our own investigations of such claims, we have yet to find the kind of evidence that a scientist would accept as convincing.

It is especially heartening to see science fiction writers such as L. Sprague de Camp and Isaac Asimov among the committee membership. Their broad range of interests and open mindedness cannot but help the committee to conduct its investigations fairly, honestly and rigorously.

Ben Bova  
Editor, ANALOG Science  
Fiction/Science Fact Magazine  
New York, N.Y.

May I remind those who deplore the increasing interest in the occult, as evidenced by the proliferation of occult books, that the number one all-time best seller remains the Holy Bible, the manifesto of those bastions of occultism, the established churches.

As I pointed out to Mr. Kurtz last fall, if he must persist in this silly witch-hunt, let him take on an enemy big enough to pose a serious threat to science and society. In the name of its peculiar form of occultism the Christian church set up the Holy Inquisition to silence all heretics including scientists. It burned them at the stake and burned their books as well. It forbade and forbids all practical means of population control. In California it even forbids the teaching of evolution as fact. The "parascience cults" have done none of these things.

If scientists really want to banish irrationalism from the world, let them hurl their challenge at the citadel of occultism—the Church.

P. E. Pothier  
Bethesda, Md.

A few notes on your recent article concerning the pseudosciences.

Despite your mention of UFO's as one of the areas of pseudoscience, you made no assessment of the work of J. Allen Hynek in that area. His impressive credentials, coupled with his advocacy of what you deemed to be a nonsense, certainly deserved at least a note.

Perhaps the lack of attention paid to debunking efforts is due, at least in part, to the fact that they sometimes use the same approach as those they seek to condemn. For example, my paperback copy of *Some Trust In Chariots*, which was one of the 12 debunking books you recommended, proclaims on its cover: "The bombshell book that goes far beyond *Chariots of the Gods* to reveal the startling, irrefutable truth about ancient marvels!" And on the back, "... reveals to the general public for the first time that [sic] amazing truth that

*Chariots of the Gods* only hinted at." Both of these statements are true, of course, but deceptively worded—only by chance did I happen to further investigate and see what it really was.

Michael Donahue  
Chicago, Ill.

In reference to your article "Science and the Parascience Cults," the debunkers who attempt to misuse an Occam Razor should realize that it is double-edged. Not only does it cut to the simplest of two satisfactory explanations, but it also cuts those who are simplistic. Einstein's theory of relativity is simple in its elegance, which was arrived at through a maze of complexity. To the "practical" observer, it is seemingly more complicated than the Newtonian mechanics which it incorporated and transcended. James Randi does what every tricky debater does when he can't refute an opponent. That is, instead of arguing the results of the filmed, double-blind experiments at SRI, he attacks the intelligence of the investigators. This type of tactic is pseudoscientific.

Charles Manks  
Owls Head, Me.

(Point of information: Randi's book contains two entire chapters arguing the results of the SRI experiments.—Ed.)

The formation of a committee to investigate "parascience," is probably a step in the right direction, but it is not likely to achieve any significant results unless science takes some similar steps to put its own house in order. As long as the wildest kind of speculations are accorded the status of established fact as soon as they are repeated a few times in the scientific journals, the nonscientist cannot be expected to take much stock in the contention that his own beliefs are not valid unless they meet rigid standards of proof. Werner Heisenberg's criticism of the quark hypothesis in the March 1976 PHYSICS TODAY is as devastating as anything that has ever been said against "parascience." It is true that he softens his indictment somewhat by saying that "I am afraid that the quark hypothesis is not really taken seriously today by its proponents," but no one would ever get that impression from the flood of articles that accept the existence of the quark as a matter of fact, and devote themselves to an examination of its "charm," its "color," and so on. The scientist who believes in quarks and black holes is hardly in a position to take a "holier than thou" attitude toward the individual who believes in the influence of the signs of the zodiac.

D. B. Larson  
Portland, Ore.

I was pleased to learn that a committee has been formed to investigate "parascienti-

fic" phenomena in a rigorous, objective manner. The credentials of the committee members (many of whose books I have read) are first-rate, and one would expect that the reports published in the committee's journal should put the kibosh on the rising tide of occultist nonsense once and for all.

There are, however, some dark clouds on the horizon. First there is the distinct possibility that all the committee will accomplish is to convince the convinced; nonrational beliefs do not yield readily to rational arguments. When this is coupled with the fact that the believers seem to greatly outnumber the skeptics and the "uncommitted" (assuming that book sales are an accurate gauge of people's attitudes), the prospects for the committee's success become dim indeed.

One can only hope that the current wave of interest in the occult is just another temporary reaction against what many people consider excessive rationalism, and that the pendulum will eventually swing the other way again. Until such time, committees of skeptics will be largely ineffective; at such time, they will be unnecessary.

Robert Carroll  
Brooklyn, N.Y.

Having digested your article, "Science and the Parascience Cults," I forward my congratulations on a job well done and offer to Professor Paul Kurtz and the members of the newly formed Committee to Scientifically Investigate Claims of Paranormal and Other Phenomena my best wishes in fulfilling what may be a never-ending task.

For the far-side of 20 years (in what once appeared a losing cause) I have investigated and studied man's immemorial imaginary phenomena. Based on the evidence, I have concluded that when dealing with irrational reasoning and illogical nonsense, there are two distinctive groups. One consists of hardcore "occultidiots"—overly antiscientific and pseudoscientific irrationalists. It was toward such people that Sir William Matthew Flinders Petrie the Younger directed the following quotation:

"It is useless to state the real truth of the matter, as it has no effect on those who are subject to this kind of hallucination."

The second group: a large proportion of those consuming and believing such claims are not antiscientific or pseudoscientific irrationalists, but rather are lacking in knowledge or awareness, a condition that may be uplifted. If such nonsense as occultism is seriously challenged by scientific and educational means, in a responsible fashion, we may, to our delight, discover that a large proportion of these irrationalists, may become antioccultists and rationalists.

L. West Perrine  
Winter Haven, Fla.

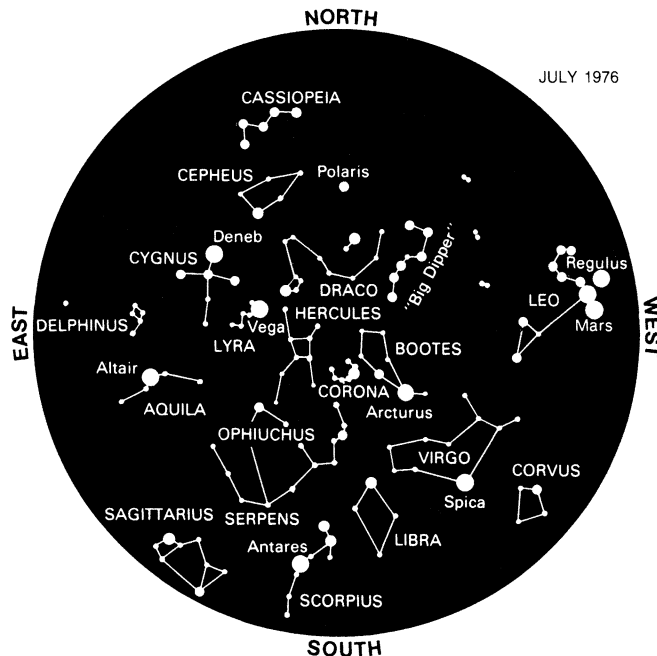
Kendrick Frazier's article "Science and the Parascience Cults" is beneath your dig-

Continued on next page

# STARS OF JULY

## CELESTIAL TIME TABLE

July	1	10:00 a.m. EDT	Moon passes south of Mars
	2	midnight	Earth farthest from sun, distance 94.5 million miles
	4	1:28 p.m.	Moon in first quarter
	6	10:00 p.m.	Moon nearest, distance 228,900 miles
	11	9:09 a.m.	Full moon
	15	11:00 a.m.	Mercury behind sun
	19	2:29 a.m.	Moon in last quarter
		7:00 a.m.	Moon farthest, distance 251,100 miles
	21	1:00 p.m.	Moon passes south of Jupiter
	26	9:39 p.m.	New Moon
	29	10:00 a.m.	Saturn behind sun
		10:00 p.m.	Moon passes south of Mars
	31	midnight	Moon nearest, distance 229,400 miles



BY JAMES STOKLEY

Although Mars, now about 200 million miles away, is visible in July only with difficulty, low in the west for an hour or two after sunset, this month may be recorded in astronomical history as the time when we began to learn more than ever before about this planetary neighbor.

If all goes well, the Viking 1 spacecraft will be orbiting around Mars, after a journey that began last year on Aug. 20 from Cape Canaveral, Fla. Early in July, the craft's landing section will be detached by radio control and sent to rest on the surface, as the two spacecraft study the planet in greater detail than ever before. Later on, the dual probe will be joined by Viking 2, launched last Sept. 9, making a total of four separate instrument

packages to supplement the data gathered by Mariner 9 in 1971, which first showed that Mars had a cratered surface in some ways like that of the moon (see last week's special issue of *SCIENCE NEWS*).

Now equal in brightness to a second magnitude star such as Polaris, Mars will be hard to see when it appears low in the west at twilight. Much lower but about 150 times as bright, Venus is nearby.

Brightest of the July evening stars is Arcturus in Boötes, high in the west. Only slightly fainter is Vega in Lyra, high in the east. Below it is Cygnus, in which Deneb shines about a third as bright but still of the first magnitude. Look to the southeast for Altair, in Aquila.

Two of the five planets that are some-

times visible to the naked eye cannot be seen this month. Mercury passes behind the sun on July 15 and Saturn does the same on the 29th. Thus, during July, both will be lost in the sun's glare.

However, brilliant Jupiter, more than five times as bright as Vega, rises in the east about 2:30 a.m., local DST, on July 1 and at about 1 a.m. on the 31st. On July 21 the moon will pass in front of Jupiter, but this will happen when it is below the horizon for observers in North America and Europe. The event will be visible, however, in New Zealand and the South Pacific. From the U.S., both in the early mornings of the 21st and 22nd, moon and planet will be close together, a striking sight in the eastern sky. □

## ... Parascience Letters

Why not obtain the opinion of objective scholars, researchers and scientists.

This article is sheer prejudice. If a UFO disintegrated what names would your so-called scientists use to describe non-earth materials.

Obviously the committee named in the article is not representative of scholar-scientists. Frazier confuses the expected hoaxes with the real thing. The only difficulty the alleged scientists have is their closed minds. They refer to the yellow-paged notes they took when students and resist anything new.

Irving Ward-Steinman  
Alexandria, La.

**Astrologer** John M. Addey of Sutton, Surrey, England, has pointed out that "empiricists are *not* the champions of reason." Apparently they only appear to be by challenging or condemning uncomfortable (to them) areas of investigation and they are all too quick to arbitrarily apply labels of "cultist unreason." How much more objec-

tive "scientific" critics of legitimate astrology would be to direct their energies to their own housecleaning. Certainly the environmental backlash of recent years offers adequate testimony to Addey's observation. Ask any environmentalist, then ask any anti-environmentalist. Each complains about the other's irrationality.

John Walker  
Houston, Texas

**The remarks** about Uri Geller deliberately excluded the fact that he has been tested by four independent magicians who now believe he is genuine. Documentation can be found in *NEWSWEEK* science editor Charles Panati's book *The Geller Papers*.

The remark that Prof. John Taylor was "fooled" by Randi during an encounter with him is an out-and-out farce. Randi visited Taylor in the guise of a reporter and proceeded to "fool" Taylor by covert actions while Taylor was busy elsewhere. I ask readers this crucial question which proves an absurd premise in Randi's reasoning: Do they believe that Taylor *should* have sus-

pected Randi to be a trickster because Taylor should be on guard against every cordial-appearing visitor?

A.H. Klotz  
Babylon, N.Y.

**I was very pleased** to learn of the establishment of the Committee to Scientifically Investigate Claims of Paranormal and Other Phenomena. I have long wished that an impartial body existed to study such things. Of late, far too much hogwash is passing for science in the public mind. And, I think, not a little worthwhile data gets chucked out with the garbage when respectable scientists refuse to give serious consideration to the claims of para- and pseudoscience.

Karl T. Pflough  
Arlington, Va.

**I want** to let you know how pleased I was by your article. Not only was it well written, but it avoided the usual simplifications, dichotomies and distortions that usually characterize articles on pseudosciences and debunking.

It is true that scientists are no match for deceptionists such as Uri Geller. But neither are most magicians. This is because Uri does not employ set tricks or fixed procedures. He is an opportunist and lets the situation dictate just what he will and will not try. He also has many different ways to accomplish the same effect. The major reason Randi was not baffled by Uri at the outset was that Randi has a broad background in many different areas of conjuring as well as other fields of knowledge. Even so, it took Randi a few years to figure out and learn to perform Uri's stunts. Most ordinary magicians as well as most physical scientists (most psychologists who have seen Geller in person have not been impressed) are no match for Uri.

Ray Hyman  
Professor of Psychology  
University of Oregon  
Eugene, Ore.

(Hyman is a member of the new committee.—Ed.)

Some followups: The name of the new committee has undergone several changes since our article appeared. The latest and, according to Kurtz on June 11, final name is the Committee for the Scientific Investigation of Claims of the Paranormal. On June 10, the committee issued a written invitation to Uri Geller to undergo rigorous testing under controlled conditions by a group to be established by the committee. Last week, seven of the world's leading astrological societies issued a signed statement saying, "We feel it important to state that the Sun Sign astrology columns printed in hundreds of newspapers and magazines worldwide are utter nonsense and have no relation to the serious study of astrology. . . . Advice columns based only on one's month of birth . . . , regardless of their possible entertainment value for some, are fraudulent endeavors as far as astrologers are concerned." The papers delivered at the conference on "The New Irrationalisms: Antiscience and Pseudoscience," May 1 in Buffalo, will be published in the July/August HUMANIST. The June TECHNOLOGY REVIEW has photos of Randi showing one way to fake "psychokinetic" key bending and an article by Martin Gardner on magic and parapsysics.—K.F.

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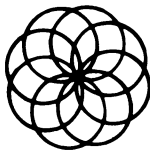
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