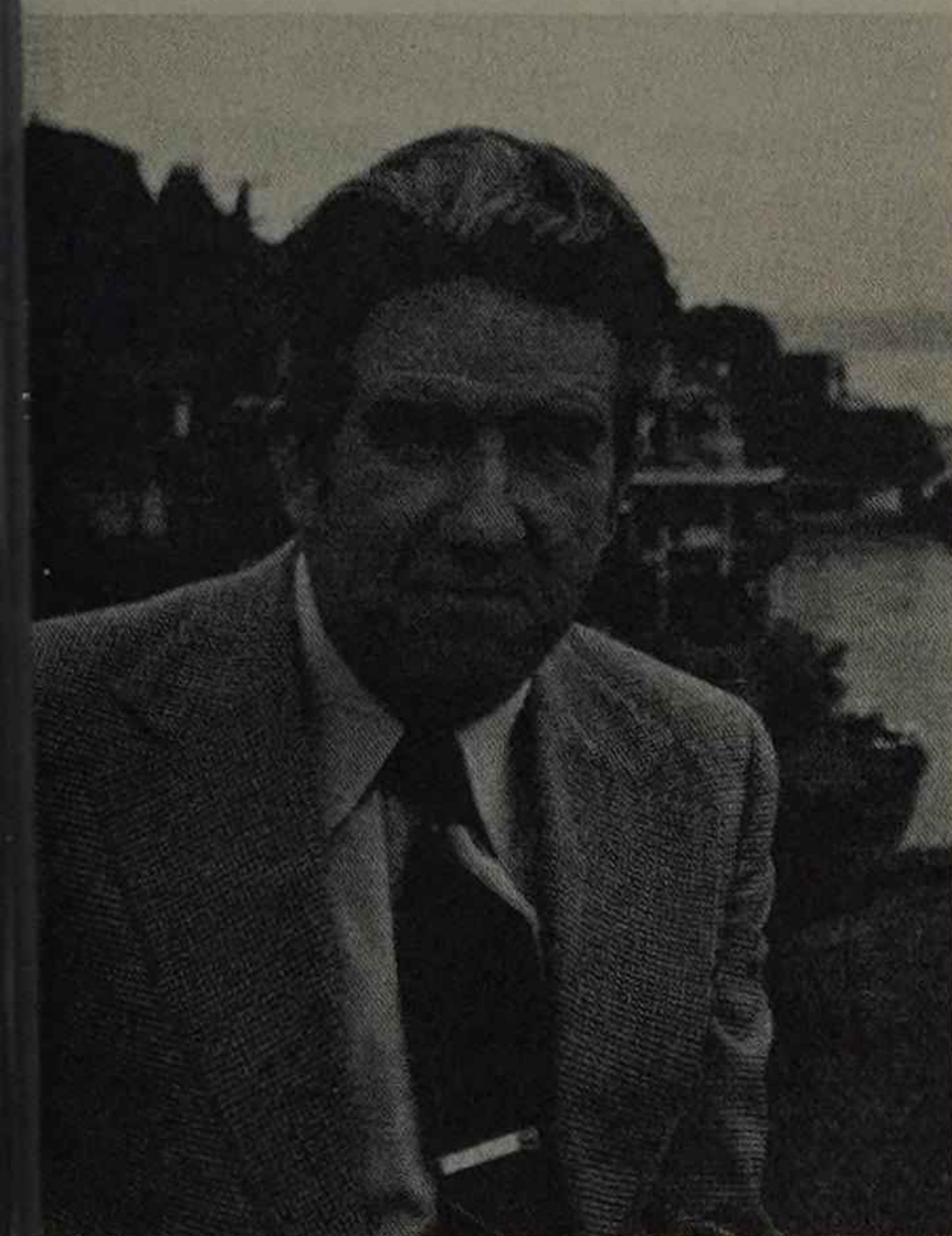




The Excitement of Our Task A Message from the President Willis W. Harman



New Realities

In the approximately one year I have been actively associated with IONS I have been impressed by the fact that many who are friendly to our efforts nevertheless appear to have a meager view of the significance of the task to which IONS is dedicated. We all understand that emergence of a noetic science presents yet another area of knowledge brought into increased human understanding. All can appreciate how advance in our understanding of inner experience and intuitive knowing can bring important applications in health care, education, treatment of delinquency, organization theory, etc.

But the significance of the noetic sciences is far more than that. This is not the opening up of a new field of science. It marks a vast new opportunity for society and a major turning point in the course of human civilization. Does that sound like a gross overstatement? Think

with me about the implications of some of the work with which IONS has been associated in its first five years.

Biofeedback training is now a widely accepted technique. In one of its more frequently demonstrated forms a person is asked to dilate the capillaries in his finger and raise the temperature of the fingertip by, say, 5 degrees. Under other circumstances he might protest that he doesn't know how to do this. But given the feedback from a temperature-sensing device on his fingertip, he finds that he can accomplish the result with ease. Consciously he didn't know how to dilate the capillaries, but unconsciously he obviously does. The implication of biofeedback training in this and numerous other forms is a powerful one. Unconsciously we know a lot about controlling bodily functions and states, while we ordinarily have no conscious access to that knowing. Through bioteedback training, autosuggestion, imaging, etc. some access can be gained.

One of the more striking examples of that principle is the work of the Simontons suggesting that unconsciously we know how to produce cancer in ourselves—and how to heal it. Consciously we are inclined to deny both the knowledge and the responsibility. (Peptic ulcers and migraine headaches maybe, but cancer?!)

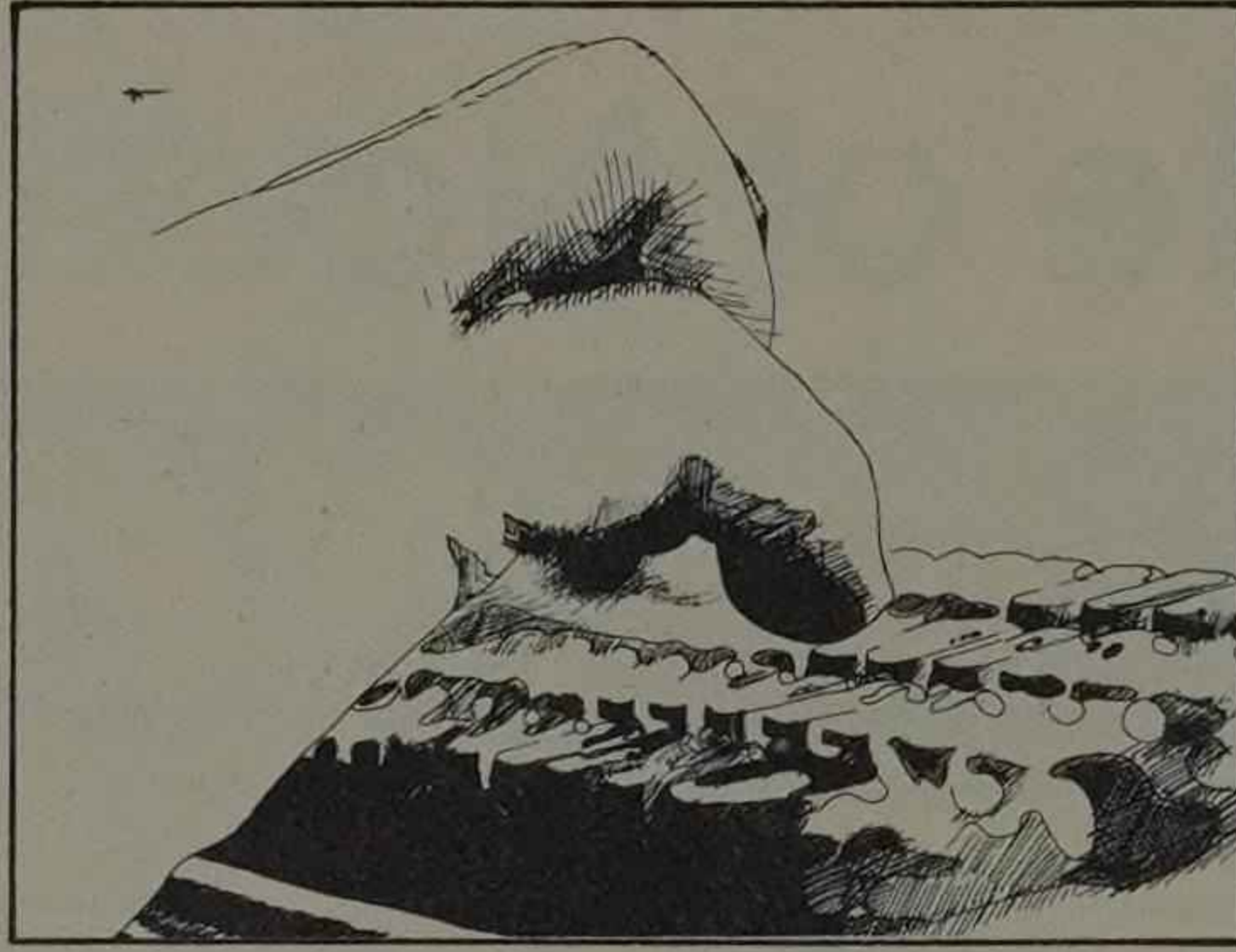
Harold Puthoff and Russell Targ pioneered the trainability of remote viewing ability. People can learn to leave their bodies at home while "viewing" some chosen remote scene as though they were seeing it with their physical eyes. On occasion they seem to view an incident that happened some time in the past, or one that hasn't happened yet. Contrary to the conventional conception

of mind as some sort of byproduct of physical brain functioning, mind appears to be indefinitely extensible in time and space. Consciously we may feel we don't know how to view at a distance, or how to view ahead in time—but unconsciously we already know, just as unconsciously we know how to dilate those finger capillaries. Training for remote viewing consists primarily of ridding oneself of the negative suggestion that "I don't know how."

The implication that unconsciously we already understand these "psychic" phenomena is powerfully substantiated by another experiment of Puthoff and Targ. In this experiment two persons who know one another are stationed at remotely isolated positions. A stroboscopic light is flashed in the eyes of the first person at a rate close to the natural alpha frequency of the brain (around 10 flashes a second). This induces a distinctive component in his EEG pattern. But it is the second person rather than the first whose brain-wave pattern is monitored. This second person is typically unable to guess better than he could by chance whether or not the light is being flashed in the other person's eyes during a given time interval. Nevertheless, *unconsciously he knows*, for the telltale alpha component shows up in *his* brain wave.

Work of Robert Jahn at Princeton makes the same point with regard to psychokinetic phenomena—the remote effects of mind on the external physical world. In one of his experiments the visitor to his laboratory is invited to attempt to move, simply by concentrating his mind on it, one of two small parallel plates in a Fabry-Perot interferometer (see article on p. 10). Now if a person were asked to levitate a heavy book a foot off the table, he would of course (most of us would) insist that he couldn't do it. On the other hand, requested to focus his mind on a very light plate and move it a very small distance, and provided with very sensitive feedback in-

Continued on page 4



COMPUTERS & CONSCIOUSNESS— The Quiet Revolution

From the very beginning of our work at the Institute, we have been interested in exploring new ways of linking together researchers with common interests into the upper (farther) reaches of human nature. It has always seemed to be the case that the conventional means with which we are all familiar (publications, conferences, etc.) serve only the most basic needs in this regard and that some new form of communication would be what would truly bring about some new kind of synergy in the research community — especially when it comes to the difficult task of working out ways of looking at some of the more complex phenomena at the upper end of the spectrum of human abilities.

Of course at the back of our minds, there was always the curiosity that many have had about the well-known fact in scientific discovery that any idea or new insight occurs simultaneously to two or more totally separate researchers in different parts of the world. We even imagined that if there were some ideal system that could link into labs and offices whereby people could indeed register the stream of their ideas as they went along, we might ultimately generate a situation where we would see a news item such as: "The following ideas arrived on Earth today . . ." To some, of course, this seems like a much too technological way of seeing things but little did we think that our speculation would turn into reality through the aegis of that most common of communication tools — the telephone. Most people still tend to think of their telephones as simply for the purpose of making calls to speak with people on either a business or personal basis. However, there has been what is known as the Quiet Revolution

in information technologies going on in the United States for the past few years now, where the telephone becomes the essential link to the vast array of computer complexes and data banks that are now world-wide and satellite linked.

It is not exactly the usual situation to make a local telephone call and find oneself in direct communication with (say) a group of researchers, doctors and writers who happen to be located as far away from one another as Hawaii, New York and London. All from one local call, you say? To all those locations at the same time? How? Then you might make another local call and dial up directly on to your desk the latest data on any subject from as many as 100 different data banks, not to mention the daily headlines of the *New York Times* — provided they were in fact being printed at the time.

The way to turn your telephone into this "magic" instrument is to add one item: a portable teleconferencing computer terminal. This is an instrument somewhat smaller than the conventional electric typewriter and not a great deal more complex to operate. The terminal, which can receive and transmit information either by display on a TV screen or in hard print, links directly to the telephone receiver and that local call is the number of the nearest computer system entry point. The larger systems are now so widely dispersed that one can set up contact with people anywhere in the United States, Canada, most European countries, Japan, Singapore and the list keeps growing. In essence therefore, provided a terminal can be acquired through lease or purchase, one can be in direct communication with people any-

where in the Western world. Further than that, one can also learn to retrieve virtually any kind of information on any subject almost instantly.

It is often observed that many of the major shifts in the cultural evolution of man have centered around changes in the way we handle information. So the transition from oral to literate culture was a major step and in turn the recent revolution in communication brought about by the film and electronic media has been viewed as equally great. It appears that the shift being brought about by this new technology may be as large a step in yet another new direction for everyone.

Of course, the initial reaction for many is one of being put off by the apparently cold and impersonal world of the computer. Another reaction is: "Oh no, not something else to read!" However, with a little sense of adventure and a modicum of patience, what opens up is well worth the effort. And indeed, one quickly begins to realize that the computer ceases to be the main focus after the initial few sessions and then it is the people that one becomes attuned to. Indeed some curious things begin to happen. For example, when you consider that one is in a situation where one does not hear or see the people and yet one "knows" that they are there thinking and responding to your thoughts, it is perhaps not surprising that one finds oneself beginning to use some untapped resources, to complete whatever picture of the person and their ideas that happens to be emerging over the terminal. That is when you start to notice your questions perhaps being answered before you have had time to type the question.

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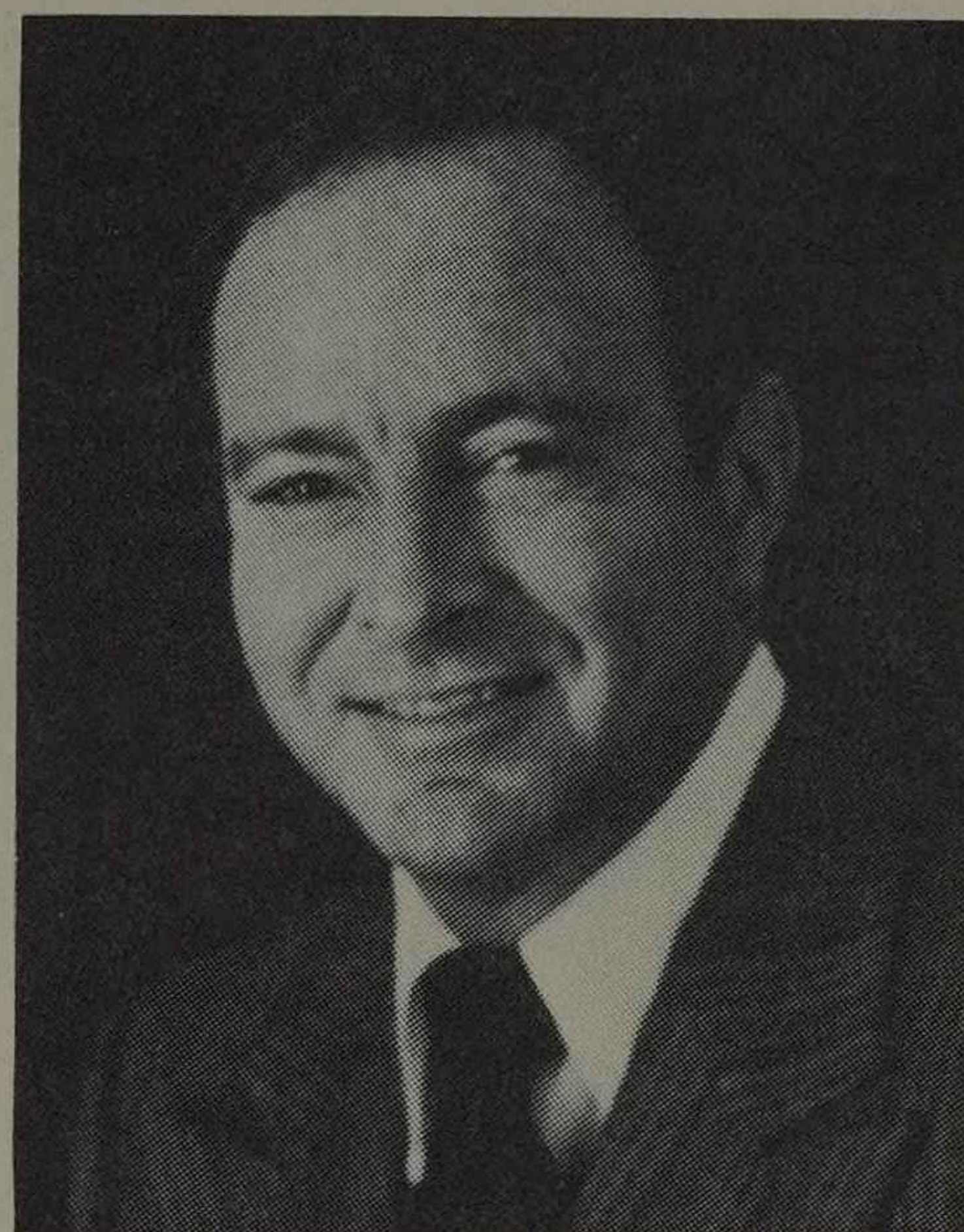
LETTER FROM THE CHAIRMAN

The Institute, under the superb leadership of Dr. Willis Harman, is gathering the energy and resources needed to carry us into our next phase of growth and service. I would like to comment on the direction that new phase of growth and service seems to be taking.

From the earliest beginning of the Institute we were aware of and concerned with the dramatic changes taking place in world society but more particularly, in our Western technological society. We recognized that the stress imposed upon individuals and institutions by these dramatic changes would either force us to grow in new directions or would crush us against the unyielding walls of our traditions. To permit this growth, however, new ideas and tools of understanding were required which seemed foreign to our thinking. All of these tools can be lumped together for brevity, as pertaining to the role of mind, spirit and con-

sciousness in releasing the untapped human potential for creative living. More simply, we have learned in our few years of effort that Man is latently psychic, that our belief systems either constrain or free us (usually the former), that the energy of a Creating God is available in the affairs of men when we learn the rules of communicating with that omnipotent energy and finally, that we are creating, *every day*, by our thought processes every detail of our lives.

These are startling ideas to thrust upon a tradition which views man as buffeted by the uncontrollable forces of time and events, born in sin and guilt and limited by a slowly evolving physical nature. Borrowing one of Bill Harman's beautiful analogies—we can either see through the old spectacles of our traditional beliefs and find ourselves embattled by our outdated dogma or we can put on the new spectacles of



love, hope and unlimited potential and learn to see our world in a new way and grow with it. The Institute has since its inception been forging for itself the frames and lenses of the new spectacles. We are prepared to put them on each day and start afresh to see, live and react to a world in which the rules of the game are different than we had previously thought. The rules are:

1. We each create our daily lives just the way we choose, (whether or not we accept responsibility for it).

2. Our beliefs choose the way we create our lives—and our perceptions, which we also choose, trigger our feelings and reactions.

3. The only certain rule of choosing, creating and reacting is that if it is not done with Love as the Keystone it will have disastrous consequences.

4. The law of cause and effect is always at work, with each loving thought and act returning multiplied at some time and place just as surely as every non-loving thought or act also returns. This fact is certain even though the path which causality takes is often veiled.

5. The creative potential of Man when tuned to that of God is limitless because with the proper spectacles for seeing and the proper belief systems for creating, Man creates in the Universal way.

The thrust of the Institute is to act upon these principals to assist in the growth and transformation of thinking. To follow Dr. Harman's analogy, we are choosing to be ophthalmologists who assist in prescribing, manufacturing and fitting the new spectacles for those who would like them. I feel confident that as all of us find new ways to clear our vision and create new realities, then will our sense of well being and serenity improve.

—Edgar D. Mitchell

IONS Projects to Date

The Institute of Noetic Sciences was founded in 1973 by Dr. Edgar D. Mitchell, Apollo 14 astronaut, to support research and educational programs to expand humankind's understanding of the nature of consciousness and the mind-body link. Over the years the Institute has funded a broad range of activities. We thought that you would like to read the complete list to date so an overall picture of the pattern in funding by the Institute might emerge. The inherent variability of the record is a reflection of our overall policy to fund projects which were having difficulty in getting support from the conventional foundation and/or government sources, despite their potential (or some would say because of) originality.

Project	Funding	Completion Date
GELLER RESEARCH	\$30,000	1974
CRITICAL ISSUES PROJECT	3,000	1976
REMOTE VIEWING PROJECT	15,000	1976
SAGE PROJECT	8,000	1976
SIMONTON RESEARCH	50,000	1976
ACUPUNCTURE RESEARCH	7,500	1977
CALIF. INSTITUTE OF TRANSPERSONAL PSYCHOLOGY	12,000	1977
GASPARETTO EDUCATION GRANT	800	1977
HOLISTIC HEALTH SURVEY	5,000	1978
HOMEOPATHY RESEARCH	2,000	1978
LIMITS OF HUMAN EDUCABILITY RESEARCH	500	1978
AMERICAN EXCELLENCE PROJECT	500	1978
VISUAL TRAINING PROJECT	500	1978
DIALOGUES TOWARD A NOETIC SOCIETY	3,000	current
NIMH BIBLIOGRAPHY	33,000	current
PRINCETON RESEARCH	5,000	current
ROSS McARTHUR LIBRARY	7,000	current
SUPERHEALTHY RESEARCH	5,000	current
CONFERENCES	20,000	
"Expanding Awareness," Ann Arbor, Michigan		1976
"Self-Healing, Self-Help," Palm Beach, Florida		1977
"Prescriptions for Health," Los Altos, California		1977
"New Prescriptions for Health," Minneapolis, Minnesota		1977
TOTAL	\$207,800	



"Nightsong" by Ascian, 1973

PRESIDENT'S MESSAGE/cont. from page 1
 formation that he is succeeding, the person discovers that *unconsciously he already knows* how to produce psychokinetic phenomena.

These successful results in remote viewing and psychokinesis add to the implications of the findings in biofeedback training to give credibility to claims of the healing power of mind. This conclusion, in the form of the proposition that all illness and all healing are ultimately self-caused, is a central concept of holistic medicine which is bringing about a revolution in health care. But that revolution is only a small precursor of the societal transformation to come.

The field of psychic research has received increasing attention in recent years, especially from certain governments who perceive in it potentialities of military significance. To these governments it appears it would be handy to be able reliably to perceive at a great distance movements of enemy submarines, or to interfere in the guidance system of a missile in the air, or to confuse someone's thinking by telepathic mental projection. But these are not the kinds of applications we have in mind. In fact, one of the critical issues relating to this field is whether it will be "captured" by the military and the more important significance will be missed.

Let us turn from these applications to something more familiar. Most of us are quite aware of the workings of some mysterious creative process which works outside our conscious awareness but

quietly remains available to help with our really tough problems. Business executives, scientists, inventors, poets and composers, all have repeatedly told us of the creative experience. Having exhausted every apparent lead to solution of a difficult problem, one turns it over to this behind-the-scenes creative center which in due course, perhaps awakening one in the middle of the night, presents the key to the solution. Sometimes this answer is in easily recognizable form; sometimes in veiled imagery. But one marvels at the beauty and appropriateness of the solution which had previously seemed to be inaccessible.

Now there is a next logical step beyond that recognition of the creative process which relatively few persons seem to take. If that creative unconscious part of myself is so much more knowledgeable and wise than my conscious mind, why stop at submitting to it only specific and difficult problems? Why not turn over the whole of one's life?

One notices, of course, that that is precisely what is recommended in the "perennial wisdom" of the various religious traditions of the world. And now we see a still greater significance to the findings regarding remote viewing, psychokinesis, and the rest of the psychic phenomena. If we all have these potentialities and understand them, albeit unconsciously, then the arguments by which a generation of scientists arrogantly proclaimed the spiritual nature

of man to be disproven—those arguments were not valid. Claims of faith healing, and the efficacy of prayer, and assorted kinds of miracles, are not a *priori* superstitious nonsense. If minds are truly joined, so that a flashing light in one person's eyes is detected in the mind of a second, remotely located person, then there is more to the religious concept of love than physical attraction or reasoned altruism. If ultimately mind and spirit are dominant over the physical, as Dr. Jahn's experiment suggests, then it is not out of the question that help from the creative unconscious might include, not only symbolic solutions to problems, but also those sorts of interventions in the physical world which have come anecdotally reported as "answers to prayer." Clearly the claims of science to have overthrown religion, once heard so loudly in our society, require re-examination.

But let us go on to a still further implication. If (a) I have access to a creative goal-setting and problem-solving capability of unlimited potentiality, (b) minds are joined, and (c) ultimately mind and spirit are dominant over the physical, then this suggests something revolutionary with regard to group decisionmaking. When minds join in asking for direction and assistance, by their very affirmation they tend to bring that guidance and help into existence. And if a group of individuals are responsible for decisions that affect the future welfare of an entire society, then it is especially important that they not settle for less than the superior guidance which is obtainable in this way. That is the highest form of leadership. The record shows that the Founding Fathers of this country believed that to be the appropriate—nay, the only workable—form of leadership for democracy. They put a reminder on our coinage: "In God we trust." But we got smart along the way and, through materialistic science, "proved" that that way was delusion.

Today, when the dilemmas of modern industrialized society grow increasingly vexing, we are becoming more humble. We are renewing, through the noetic sciences, that age-old search for tested knowledge from the human inner experience to guide us in selecting appropriate methods, values, and goals. Here lies help for a society that has lost its way. The role of IONS in this large endeavor as a small but important catalyst. When we grasp the significance of the issues with which we deal, we must conclude that ours is one of the most exciting tasks around.

COMPUTERS/continued from page 2

on or when you find that even though you had not planned a direct live session with someone, they just "happen" to watch on their terminals 3000 miles away. Suddenly the link has transcended the machine in a most unexpected way.

For the past few months, we have been experimenting with just this kind of system at the Institute as a means of starting up the methodological design for our project: "The Search for the Superhealthy." We have linked together people at locations ranging from Georgia to Colorado, California and Hawaii to gather their ideas and thoughts — as they emerge for them in their own time and with access to their home environments — about the overall design of the

first phase of the project. The link stretches from a group of educators with the Creative Interchange group in Atlanta, Georgia to consultants in health systems with Control Data Corporation in Minneapolis to physicians at the University of Colorado at Boulder and in Hawaii plus the link to our own offices here in San Francisco. We plan to expand the system upon the arrival of funds for the Superhealthy Project as a whole. Using this system, all of us are able to enter any ideas, references and other material into the system at any time and it will remain stored until everyone picks up the messages at the time of their choosing. Plus the fact that the system also permits real-time interaction with as many as 25 people in any

location at the same time. The system itself is called (appropriately) the Planet system and is operated by the Infomedia Corporation in Palo Alto, California.

An added facet is that many other kinds of work can be simplified such as the keeping of files and records pertaining to (say) a large number of projects . . . which then can be accessed and/or updated instantly at any time. In turn, it provides the possibility for people anywhere to become part of an activity for which, for one reason or another, they cannot be physically present.

The system of seven terminals was made available to the Institute on loan from Dr. Richard Chilgren of Hawaii and we hope to be able to add more people to the system in the near future.

— Brendan O'Regan

THE FIREWALKER: Harbinger of Healing?

Reports of firewalking have come from all over the world for centuries, though we typically associate it with strange foreign lands and the world of "native" customs. Most people are surprised when they learn that not only does it take place regularly in Europe (in Spain and Greece) but that the man who holds the world record for walking on the hottest measured temperature over the longest trench is actually an American.

He is Mr. Vernon Craig from Ohio, and we witnessed him demonstrating his abilities recently at the Holistic Health Meeting in San Diego, California. The meeting as a whole abounded with presentations on aspects of diet, meditation, and various consciousness techniques deemed essential to the development of higher potentials. It was therefore somewhat ironic to observe that the way Mr. Craig prepared himself for his demonstration was to pace around the burning trench, chain-smoking cigarettes and drinking one after another of Coca Cola! He was dressed in a simple business suit and when the time came, after the trench had been burning furiously for several hours, to him to walk across, he simply rolled his pants up and took his shoes and socks off. He was then examined by five different doctors who proclaimed him to be free of any unusual covering and his feet unusually soft. He took a total of 10 steps on the 22-foot trench and emerged totally unscathed. When this writer tried to approach the trench immediately

afterward, he found it impossible to get closer than about three to four feet from the edge of it without getting scorched. All this you may say sounds like the usual kind of thing you hear in a report of a firewalk—and it is.

However, the implications of it all when one actually observes it are profound. One has only to think of the many people in burn therapy clinics all over the country, all the fire-fighting departments and one's friends who were in pain for days when the victims of accidents with something as relatively cool as boiling water, to realize that something truly extraordinary is waiting to be discovered here. The combination of implications stretching from pain control to temperature resistance and possibly regeneration research strike one as so obvious, that it becomes all the more amazing that this phenomenon is not being investigated on any serious level. Mr. Craig, who is a most affable and cooperative gentleman, couldn't agree more but says he has learned over the years that when faced with the extraordinary, the majority of people seem to prefer to look the other way. Surely it is time that this extraordinary ability be investigated at some level better than the usual attempt to explain it all away in terms of the so-called Leidenfrost effect, which claims that the foot of the firewalker is protected by a layer of sweat. (Tell that to your friend who got second degree burns from boiling water!) Hopefully it will be possible to

mount such investigations in the near future.

— Brendan O'Regan

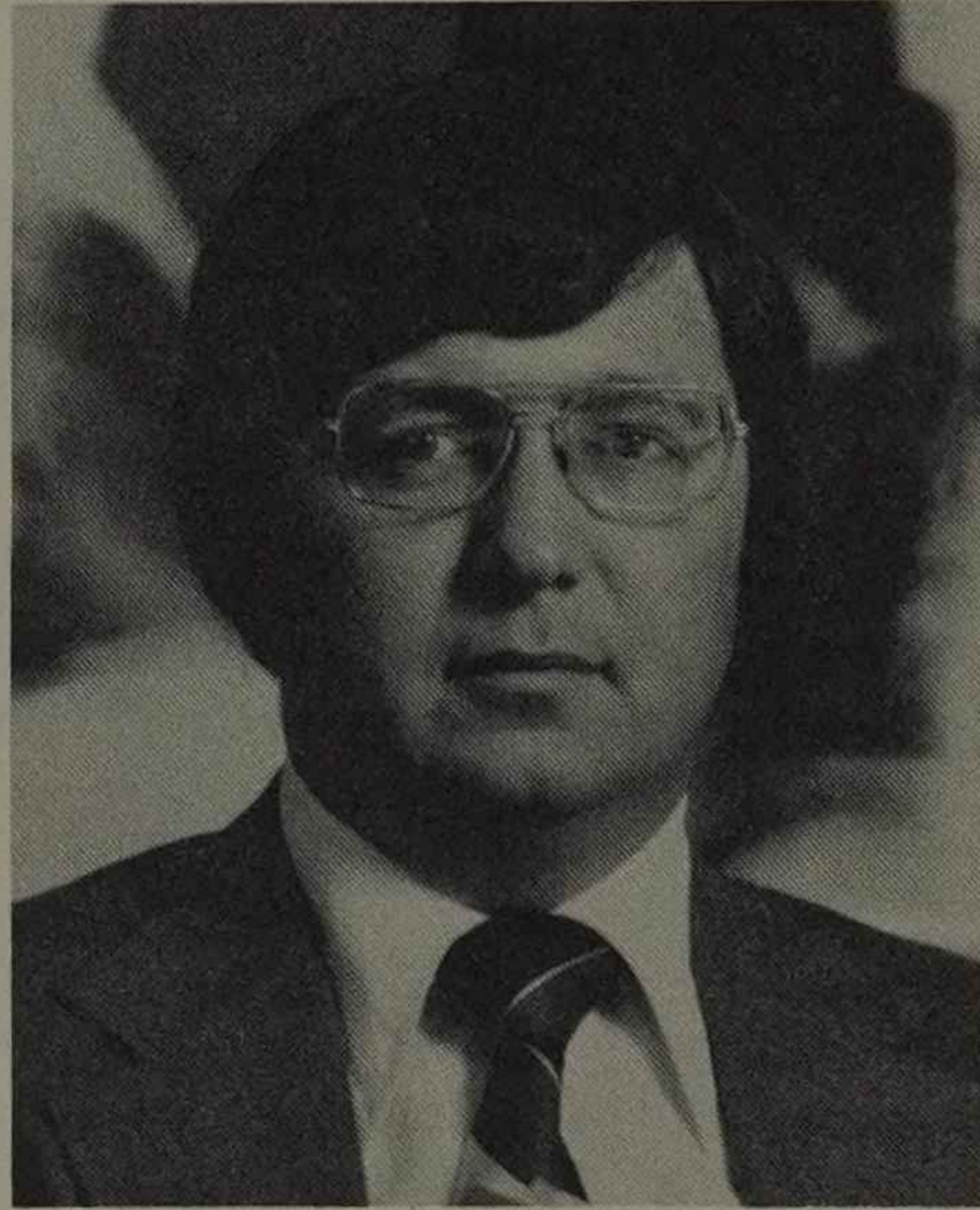


Vernon Craig

PROJECT UPDATE



Stephanie Matthews-Simonton



O. Carl Simonton

CANCER, MIND & MATTER: The Changing Climate

When the Institute of Noetic Sciences decided three years ago that it was a sound idea to sponsor the cancer research and treatment work of Dr. Carl Simonton and his associates in Fort Worth, Texas, it was a decision that was met in many quarters by a more than slightly raised eyebrow. In some quarters, the expression of disbelief was somewhat less polite, but we went ahead anyway. In essence, what that decision meant was that the Board of Directors was convinced that the overall approach to cancer treatment at that time was missing an essential component, the role of the mind. If you spoke at that time to almost any oncologist about such a notion, you met a response which bluntly affirmed that all relevant causes of this major killer were clearly and only to be found in the physical domain and in turn, that the body was a system in which the only relevant considerations were physiological. The idea that attitude, mind-set of belief system could play a role was portrayed as ludicrous.

Today, it has to be said that the mainstream of cancer research is still largely set in that direction but only because the direction in any given year is set some years in advance by the funding policies which prevail in the planning process. We have had the pleasure of witnessing a dramatic change in the past three years. Instead of the blank look

usually encountered when the role of the mind is mentioned, the climate has shifted now to the point where at least a grudging acknowledgement of the relevance of psychological factors is granted. We see this as the beginning of a major change and we like to think we had something to do with it.

Perhaps one of the first sources of the change was the publication in 1976 by the Simontons and Dr. Jeanne Achterberg of the annotated bibliography: "Stress, Psychological Factors & Cancer." We were one of the main sponsors of that publication and it provided the interested professional with a look at a cross-section of the literature, some dating back to the beginning of this century, which indicated that researchers for many years had noted correlations between psychological factors and cancer. A 1955 study was even able to predict rates of tumor growth based on a knowledge of the psychological make-up of the patient. Thus what seemed like the utmost in unfounded speculation a few years ago was given some solid underpinnings from the research literature itself.

In parallel with all this, a small but significant growth in interest in the whole area of placebo research began to take place. As is well known, the placebo effect is the name given to what happens when a patient is given a sugar pill in-

stead of a drug and responds as though that sugar pill was a powerful drug and is "cured" of the disease in question. Until 1976 nobody bothered to ask, what kind of person is responsive to the placebo effect? Just such a piece of research appeared in the Proceedings of the Mayo Clinic in a paper entitled: "Who Responds to Sugar Pills?" In short, what was found was that there were certain kinds of people who were high level placebo responders and others who were not. In the study they were described in preliminary terms involving their occupational backgrounds, educational level and so forth. However, from this paper two key points emerged: (1) In any population, including cancer patients, there exists a group which can be helped to mobilize their own defense mechanisms and be cured in spite of the fact that an overall cure for the group of diseases known as cancer still eludes us and (2) All previous studies which used randomly composed "control" groups and which didn't take into account the kinds of people in the group must now be called into question regarding the reported level of difference between the effect of the drug being tested and the placebo administered.

So then it began to emerge that the idea of searching for (a) the kind of person most likely to develop cancer and (b) the particular sub-set of this group most likely to be responsive to curative procedures, whatever that might be, could identify a group of patients that could be saved. It is important to remember here that in the research sponsored by the Institute, only terminal patients were admitted and so we were dealing with a group of people who had been through the conventional medical mill and who had been told they were terminally ill with perhaps nine months to a year to live. One of the first results to emerge from the study as a whole was a paper entitled: "The Psychology of the Exceptional Cancer Patient." Here we learned something about the kind of cancer patient who was able to outlive their prognosis and in effect, beat the disease. In the 1976 paper, two groups were considered. One group of 12 patients who two years past a terminal diagnosis which predicted their death within six to twelve months, was compared with another group of ten patients who died within a year of their terminal diagnosis. The exceptional group were evaluated in a number of ways and compared with the group that died as expected. The exceptional group turned out to be people who were normally highly successful

their lives generally, had very strong egos and rather than "give in" to the disease chose to continue leading fully active lives. So the survivors scored much higher on the Control, Non-Conformity and Ego Strength scales of the Minnesota Multiphasic Personality Inventory test. In other tests they proved to be people who preferred to be extremely self-reliant, and strongly felt themselves to be in control of and responsible for their own lives. These are but a few of the aspects revealed by this study, which sets a course for a whole new approach to the evaluation of cancer patients. Published in a climate that has only begun to acknowledge the significance of the psychological factors, it seems safe to say that in the near future, the paper, which was published in the journal, *Psychotherapy: Theory, Research & Practice*, will stimulate a very high degree of interest in the therapeutic community.

The next portion of the study to emerge was a paper entitled: "Psychological Factors and Blood Chemistries as Disease Outcome Predictors for Cancer Patients" by Dr. Jeanneachterberg, Dr. Frank Lawlis, O. Carl Simonton and Stephanie Matthews-Simonton. This paper analysed data derived from the Simonton research to consider the relative usefulness of these two main kinds of data in being able to accurately predict the course of the disease for any given patient. (Remember that the terminal patients' diagnoses were probably made without regard for any psychological factors.) The three main conclusions stemming from this paper were:

- (1) Blood chemistries tend to reflect ongoing or concurrent disease status.
- (2) There is a statistical relationship between psychological variables and blood chemistries.

(3) Psychological factors are predictive of subsequent disease status.

This paper was also published in the research literature in the journal *Multivariate Experimental Clinical Research* (Vol. 3, No. 3, 1977, pp. 107-122). The most important single point here is that it was found that it was the psychological data that provided the best means of predicting the likely outcome for a patient and this says something very important for the whole process of diagnosis as it is practiced today. In summary, it asserts that any diagnosis that does not take psychological factors into account is at best incomplete and in many cases simply wrong.

In the meantime, the Simontons' own book, *Getting Well Again*, was published (it is reviewed separately in this issue) and received a very positive reception. It was the subject of a four page review in the major weekly *Science* (Vol. 200, June 23, 1978, pp. 1363) under the heading: "Cancer and the Mind: How Are They Connected?" A few years ago, we would have been more than a little amazed to find such an article in a journal such as *Science*. The reviewer, Constance Holden, approached the whole subject with great thoroughness and caution, citing in detail the large body of work over the years that the Simontons had already used to support their contention that the mind does play an important role in disease and health. She went on to cite the results we have summarized here and then included some comments from the supposedly knowledgeable establishment who remain hostile to the whole idea. What emerged from these latter comments, some sadly coming from people who any careful reader of the review as a whole will realize ought to know better, is that no amount of research can overcome a basic disposition to ignore data that doesn't fit one's pre-

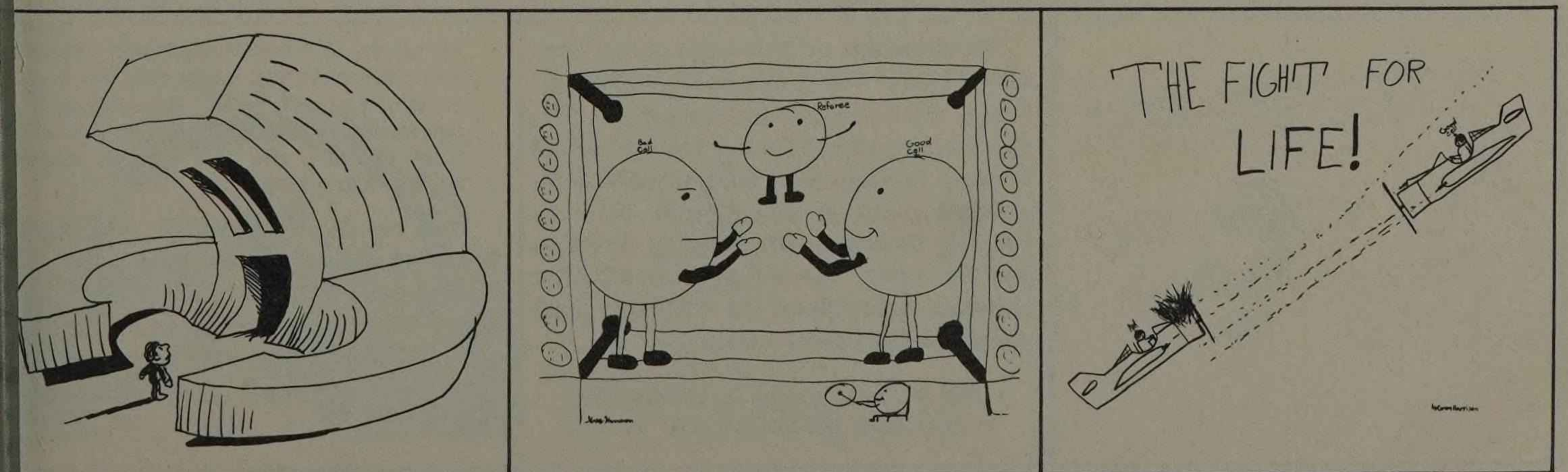
conceptions!

Now we have received the first draft of a large final report from the Simontons' program and we see that the total number of patients so far treated numbers 180. Of these "incurable" terminal patients, 80 are living, 84 have died and 16 have been lost to follow-up. Considering that without the Simonton techniques, all of them "ought" to be dead, these figures are impressive. Further detail is now emerging about median survival times for different kinds of cancer, however, until the scientific publication of this data occurs suffice it to say that in all cases the median survival time of the patients increased significantly to an overall average of about twice as long as national averages for patients treated in the conventional fashion. Another important conclusion is that the outcome of treatment has much more to do with the attitude of the patient prior to treatment than it has to do with the severity of their disease. This result is obviously totally at odds with commonly held expectations but indeed so does the whole of what happens when one wants to take the mind into consideration.

In summary, we can say that this one piece of funding has produced an extremely rich array of results that opens up a whole new terrain for the future of diagnosis and treatment of cancer. To end on an even stronger note, we are happy to be able to report that a few weeks ago, Dr. Simonton had the opportunity of presenting his results at the International Cancer Congress in Buenos Aires, Argentina which was attended by several thousand delegates from over 70 countries. So what started as a modest attempt to learn a little more about the major disease of our time has become the beginnings of a major contribution to the field.

- Brendan O'Regan

There Is a Rainbow Behind Every Dark Cloud There Is a Rainbow



New Book Offers Hope to Cancer Patients

Following are two book reviews of *Getting Well Again* by O. Carl Simonton, Stephanie-Matthews Simonton and James Creighton (Tarcher/St. Martin's, Los Angeles, New York, 1978, \$8.95), one by a cancer patient and one by a physician working with holistic health concepts in his practice.

Patient's Review

Carl and Stephanie Simonton are two in an ever louder chorus of voices urging the physician to consider the "whole patient" when tending his physical ills. But where researchers in the past have tended to concentrate on linking a prior emotional state to the onset of physical illness, the Simontons are forerunners in developing a practical method of using mental and emotional forces after cancer has been diagnosed to better effect a cure. In their new book, *Getting Well Again*, written in conjunction with James Creighton, they set forth results of research done by others and their own experiences and methods perfected while working with patients at their Cancer Counselling & Research Center in Fort Worth, Texas.

Carl Simonton, an oncologist/radiologist, first remarked on a curious coincidence while treating cancer patients at Travis Air Force Base: patients with a strong reason for living would often get well and those who had a far better physical prognosis but who had given up hope did not. He looked back into medical history to see whether others had witnessed this phenomenon

and was astonished at what he found. Prior to the twentieth century, many had written that cancer would develop in the wake of "mental misery, chronic distress and depression." However, in this century, attention had shifted to the great successes obtained by surgery, radiation and chemotherapy. Doctors who had felt quite helpless in the face of the miseries of cancer were concentrating on the new and promising means of physical cure. The Simontons could not help but remark on the irony of the situation, for it was also the early years of the twentieth century which saw the greatest advances in psychiatry and analysis. In the enthusiasm of each physician to master the burgeoning mass of information in his own field, communication between fields of specialization had been lost. It is their hope to demonstrate a close relationship between the physiological and the psychological and, in turn, to show how a patient can assume a role in his own recovery.

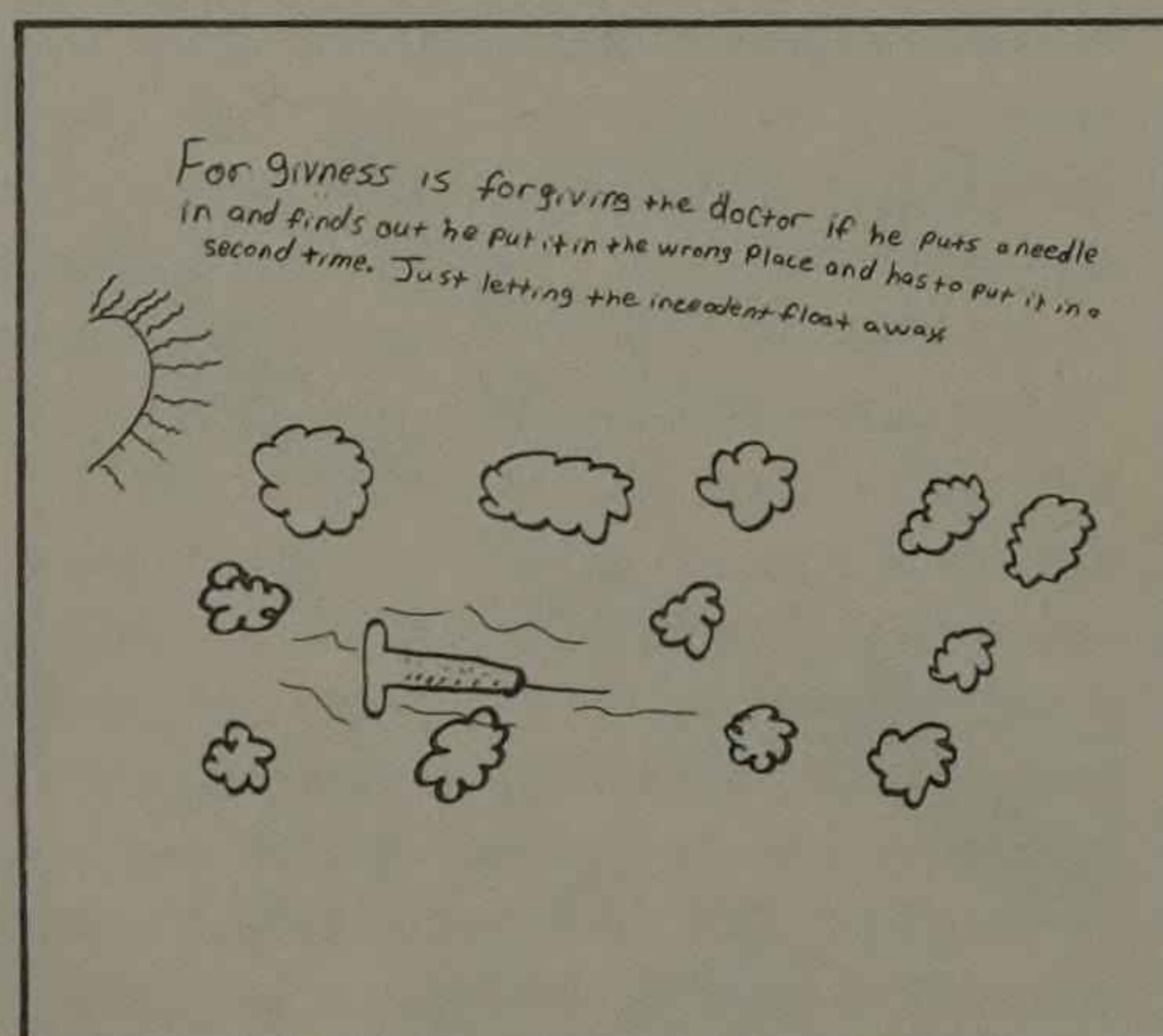
For several years before writing the book, Carl Simonton had lectured widely and had made a tape recording which was available to cancer patients. In this recording, he led the patient into a state of deep relaxation, encouraged him to visualize his body's own strong immune system, aided by whatever treatment he was receiving, attacking and conquering the weak cancer cells, and the body emerging strong and healthy. In his book, he adds a further step to this exercise: he advises the patient to get in touch with his "inner guide" (which may also be called his spirit, his psyche, or his instinctual self) to help him better resolve the conflicts and dilemmas which he will encounter in the

future, as he did in the past, so as to contribute to his inner peace and health.

I, myself, underwent surgery for cancer eight months ago, and I consider myself fortunate to have had Carl Simonton's tape, and also to have had several sessions of therapy with a woman trained by the Simontons. I had suffered several years of depression before the diagnosis of cancer was made, and was quite apprehensive that this state might continue and even worsen with the knowledge of such a distressing illness. I was, therefore, only too happy to learn of a way to control this emotional state and also, if possible, to use my mental powers to combat the cancer. It was not long before I was able to relax completely and the visualization came easily (Today, when I think back to the radiation treatments, I do not envision waiting rooms and foreboding machines, but Vulcan hurling down golden bolts of lightning, which sought out and destroyed the malignant cells.) I also exercised as much as possible, rested when I felt it necessary, and prayed a great deal. For whatever reason, the poor prognosis which I was given following surgery has been changed, and my doctors feel quite confident that I shall recover.

I find only one criticism of the Simontons' work. There is no mention of a spiritual force which might also help with the healing process. Perhaps it is a conscious omission, for the Simontons focus intently on a patient's rallying his own powers to fight the illness. However, they do acknowledge the therapeutic value of exercise and traditional medical treatment. Many patients experience a kind of spiritual crisis in the wake of serious illness, and I do not think it would detract from their own work to suggest that the patient can be helped by a force even more powerful than himself as well.

Behind Every Dark Cloud There Is a Rainbow Behind Every Dark



The drawings on this page come from a new book: *There Is a Rainbow Behind Every Dark Cloud* published by Dr. Gerald Jampolsky's Center for Attitudinal Healing in Tiburon, California. Dr. Jampolsky's work at the Center involves helping children with terminal illnesses and this book is in fact produced by the children themselves. As they put it so simply in the Introduction:

"This is a book written for children like us who have gotten sick with cancer,

leukemia, and other sicknesses where you are scared you might die. We find as we help each other, we help ourselves. We hope that writing this small book will help you gain through sharing our experiences."

The result is beautiful and heart-breaking at the same time, and one comes away with a profound sense of respect for their courage and articulateness in dealing with a life and death situation that even most adults find hard to face.

Judging from the success they have had in lengthening the lives of many patients judged terminally ill by other doctors, there is no doubt that their technique is a welcome tool in the fight against cancer. The book will spread their news far more widely, and those who did not know about the tape, or who could not go to their clinic, will now be able to participate in this experience.

— Anonymous

Physician's Review: *Getting Well Again*

The knowledge that the mind and body are inextricably interrelated has been a phenomenon that Western medicine has largely ignored for the greater part of the twentieth century. *Getting Well Again* by Carl and Stephanie Simonton and James Creighton is an important step in redressing this error. In addition, the work addresses the questions of whether we are responsible for our illnesses—a question whose answer is the *leitmotif* of the book.

The authors are followers of Karl Menger's belief that "Illness is in part what the world has done to the victim, but in a larger part it is what the victim has done with his world, and with himself." While there is attention paid to the environmental dimensions of cancer causation, the balance and thrust of the work is directed at the patient's responsibility and participation in the contraction, cure, and prevention of cancer, and by extension other diseases. It is the authors' approach to disease and treatment which gives great value to the work. Its implications and ramifications lead one to deduce that without treating human beings in their totality, psychologically and

physically, and without assessing the cultural and natural environments they inhabit with their manifold insults to our mental and physical states, we have little hope for a totally healthful existence.

The Simontons believe that in addition to traditional medical practices, the power of one's mind should be directed at making oneself healthy. From their work with biofeedback techniques and meditating the Simontons realized that positive thinking could have a palliative effect upon the patient. The evidence they muster, though limited to few cases, is indeed impressive. The ability of humans to control seemingly involuntary motor faculties is seen here as affecting immunological and hormonal systems. The illustrations and examples where this power is directed at cancer should not be lightly dismissed.

The Simontons' "meditative" techniques, which encompass both physical reduction of anxiety and visual imagery for relaxation and the eradication of cancer cells, are prime considerations in their book. The authors repeatedly emphasize that it is not just the presence of stress in our lives, but how we deal with the concomitant anxiety it fosters which may determine who stays healthy and who becomes ill. It is important to note that the authors are not saying that following their methods is enough. It is indispensable that the patient participate with the proper mental attitude—a positive outlook, the will to live, motivation to improve. This mind set is the crucial and controlling factor.

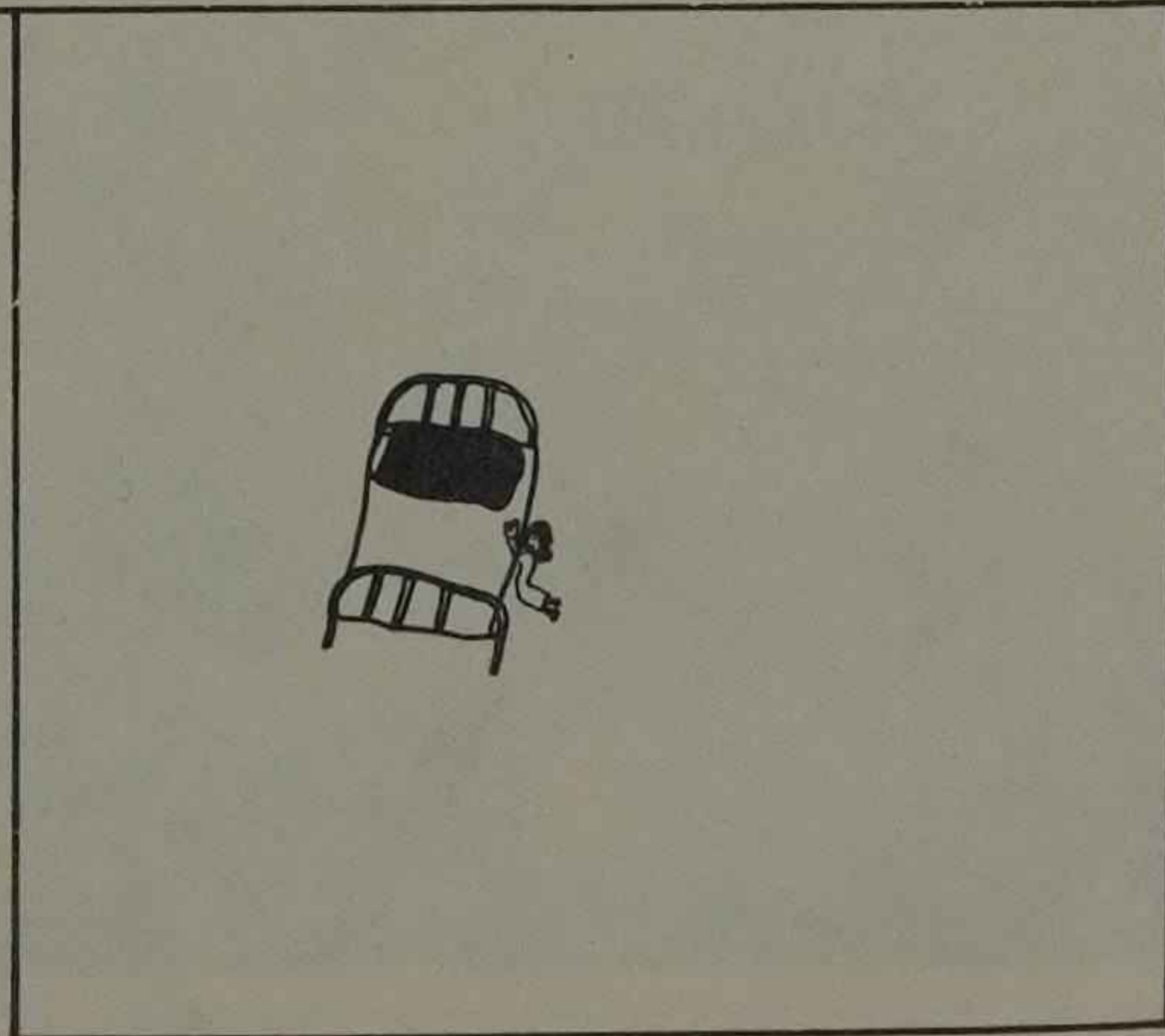
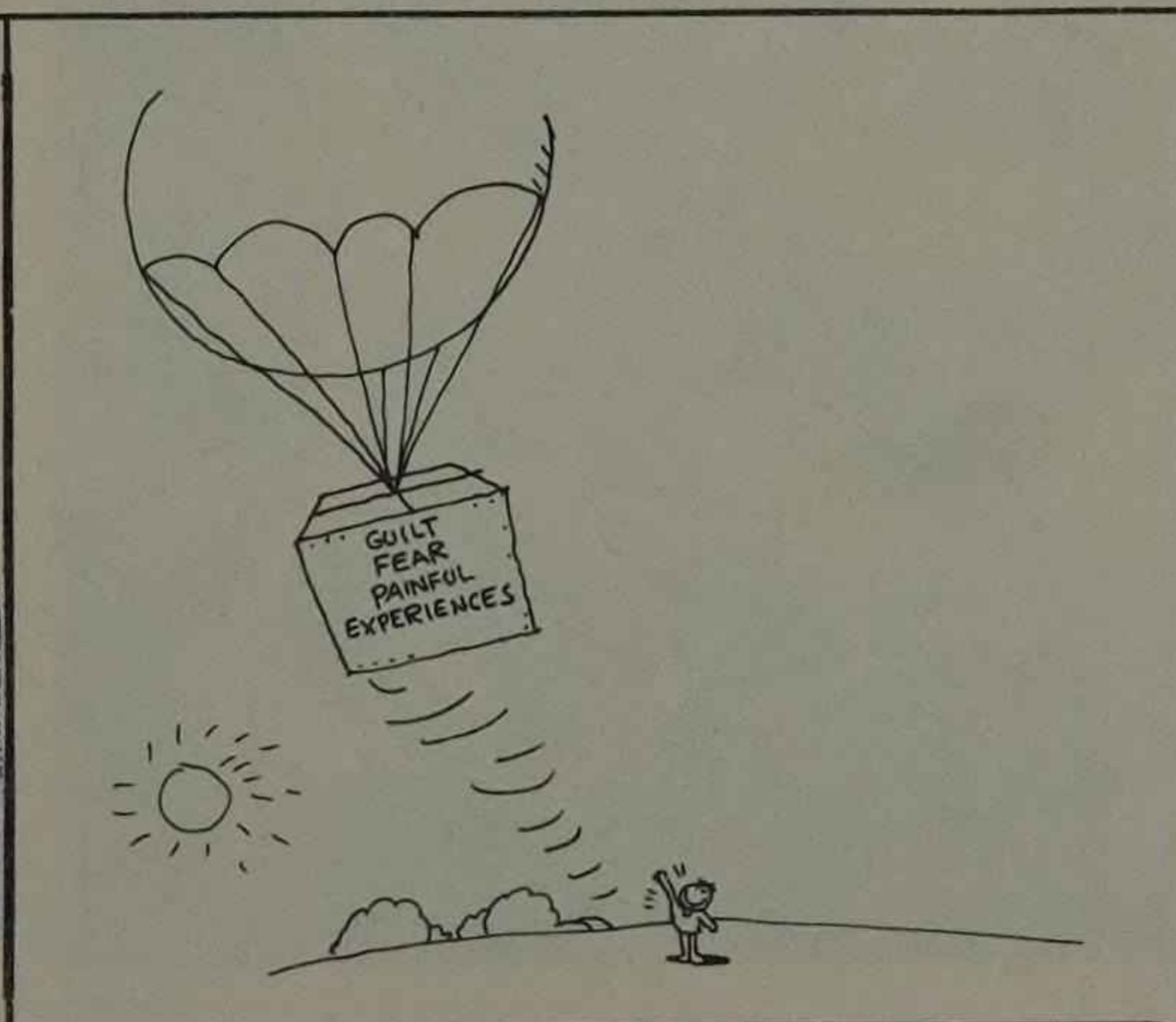
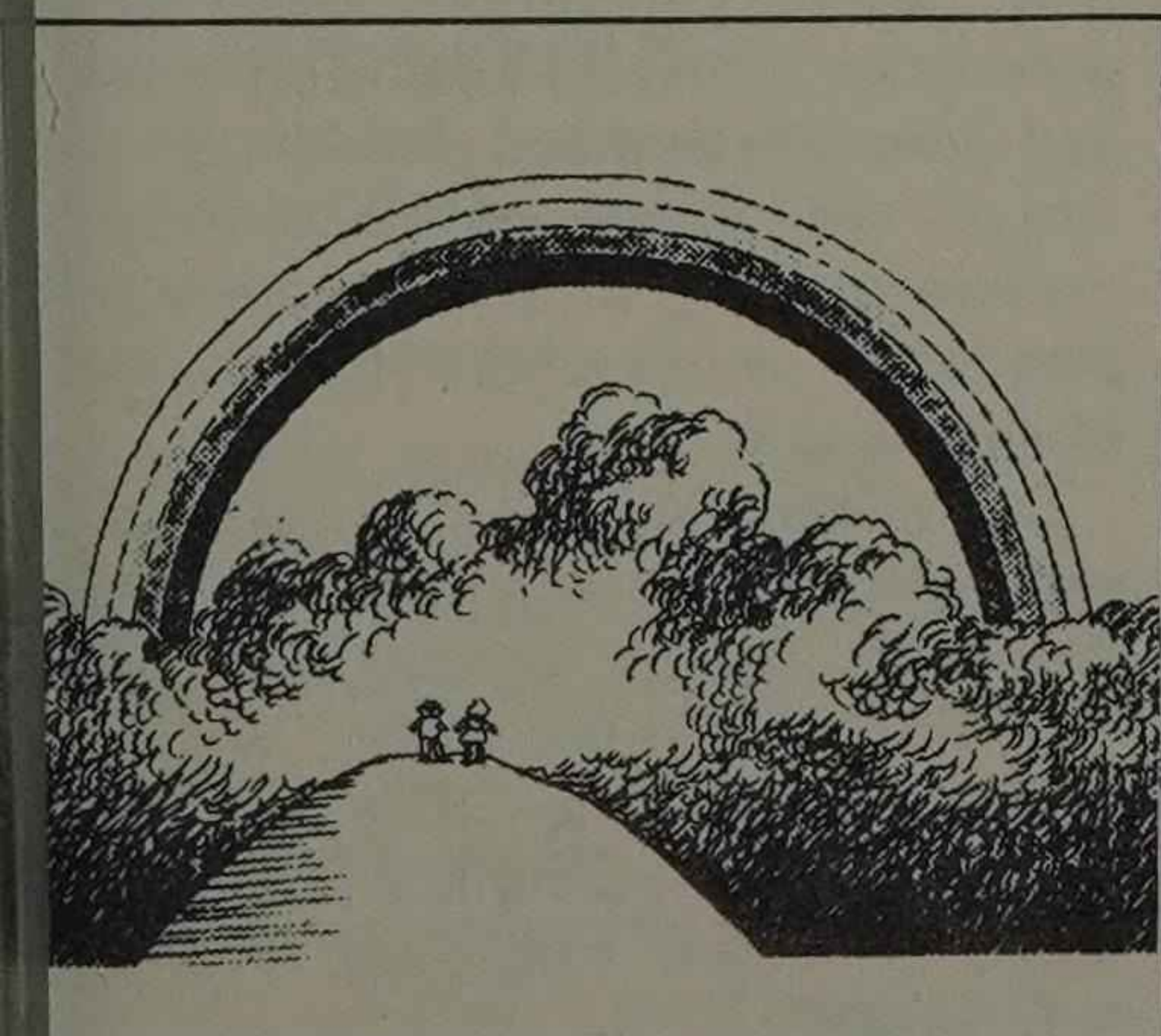
The return to a holistic vision of health points to an acceptance of various treatments for cancer and other diseases. The recognition that host immunity, which is affected by one's total well being, both physical and mental, can be influenced from the exterior should not relegate the environmental role of carcinogens to a

passive role. Staying well is an ongoing battle against the air we breathe, the chemicals we handle and the food we eat. While the Simontons' meditative technique may bring results to certain individuals who fit their cancer "personality," one should not neglect nor negate the proper role of surgery, radiation and chemotherapy in aiding patients. Great strides have been made in the last five years. Hodgkins disease, which was untreatable five years ago, is thought to be curable today; acute leukemia is arrested in fifty percent of the children who contract it. In addition, the toxic effects of chemotherapy have been greatly reduced. Cancer is no longer the frightening enigma it was a short time ago. Advances in immunology, molecular genetics, and cellular biology, point, along with the treatment of stress and anxiety, to the alleviating of suffering from cancer and other diseases.

The knowledge we now possess about disease further directs our attention to the responsibility that we have for our own health. All the major diseases which plague the modern world are ostensibly those with which we afflict ourselves. While there may be no way to immediately halt the onslaught of environmental insults, we can do everything possible to decrease our susceptibility to them. Herein again lies the importance of Simonton's book. For the value of his technique goes beyond the treatment of cancer. The meditative technique can help keep us healthy before we contract any disease. Along with proper nutrition and sufficient exercise it is imperative to learn how to reduce and control stress and anxiety. *Getting Well Again* is a step in both the recognition and implementation of total body treatment.

— Richard Kaplan, M.D.
Holistic Medical Group

Cloud There Is a Rainbow Behind Every Dark Cloud There Is a Rain



Institute Supports Research at Princeton: Possible Breakthrough in Psychokinesis

A dramatically new experimental approach to research on psychokinesis, currently underway at Princeton University, amounts to an extension of biofeedback principles to the external environment. If the early results are substantiated by further work, they provide the closest thing yet to a repeatable experiment in this area of "mind over matter."

The field of biofeedback training has revealed that each of us "knows" how to control involuntary processes in the body—but the "knowing" is unconscious, requiring the feedback to make it manifest. The control of blood flow in the fingertip by providing feedback from a temperature sensor has become the classical biofeedback experiment. The subject has no conscious knowledge of precisely how the control of capillary dilation or contraction is accomplished; nonetheless, given the indication of the temperature of the fingertip as feedback, he finds that in some way he

"knows" what to do to alter the capillary diameter and change the blood flow. It now appears that the same sort of statement can be made about psychokinetic phenomena. Given appropriate feedback, we may discover that in some unconscious way we already "know" how to focus the mind on, and move, the ashtray on a table across the room. The required feedback in this case is an extremely sensitive indication of the motion of the object.

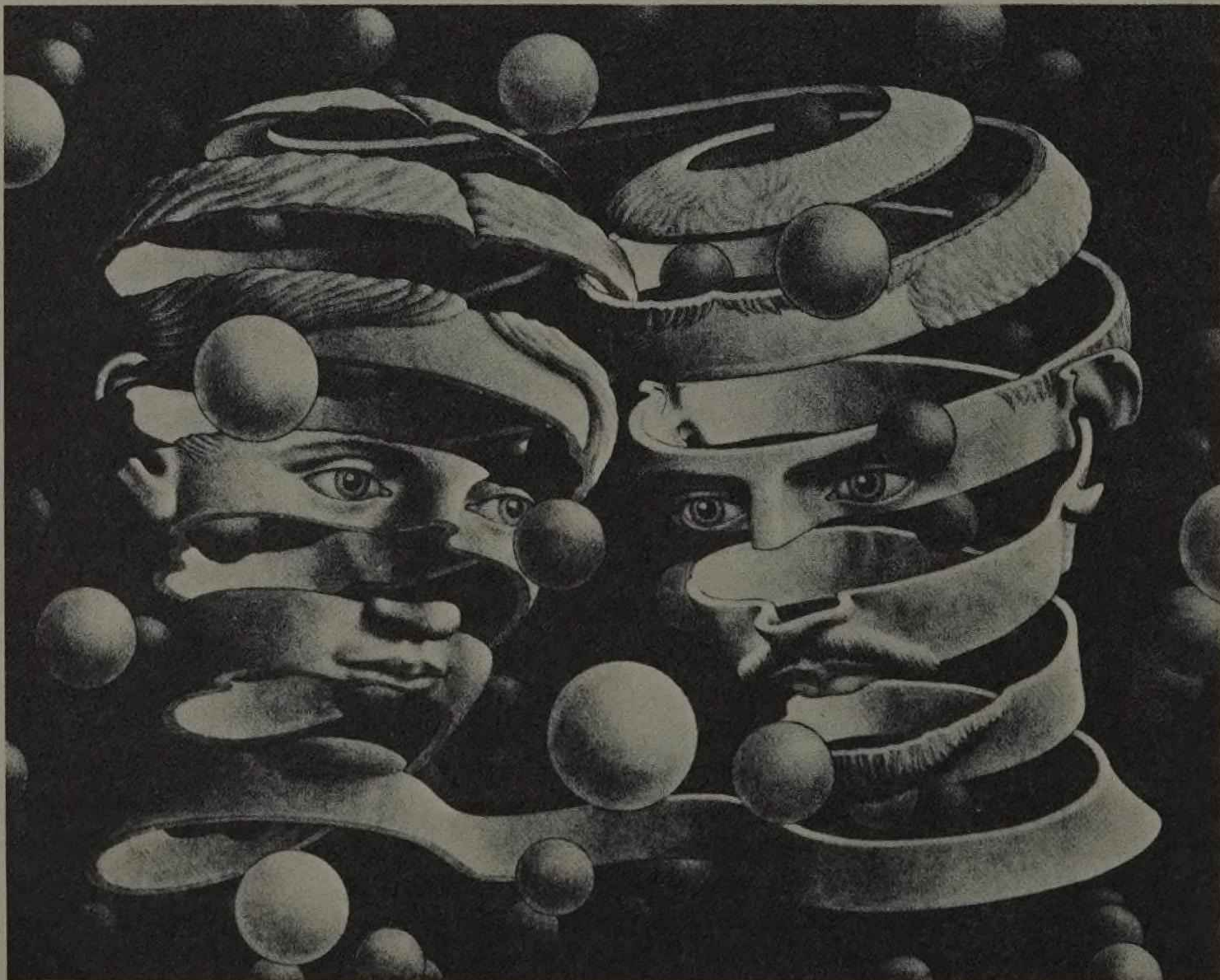
Robert Jahn, Dean of the School of Engineering and Applied Science at Princeton University, is the senior investigator of this project, partially funded by IONS, to devise new and more satisfactory instrumentation for investigating psychokinetic phenomena. The objective is to move beyond the statistical kinds of data that have characterized so much of psychic research over the past half century, to a much more explicit display of the phenomena. The findings so far are tentative, as Dean Jahn would

emphasize, but powerfully suggestive. The Fabry-Perot interferometer has thus far proven the most satisfactory sensor of extremely small motions.

The heart of this device is a pair of circular glass plates with quite highly reflective coatings on the two inner-facing surfaces. Light repeatedly reflected from these parallel surfaces produces an interference pattern on a screen, consisting of rather sharply defined alternating light and dark circular fringes. A slight change in the spacing of the plates produces very visible motion of the fringe pattern. If the plates are separated slightly, the fringes propagate radially outward, the whole pattern of concentric circles expanding and providing the feedback "beyond biofeedback."

The implications of these tentative findings are profound. They suggest that the same mind which pervades our physical bodies, controlling the vast complexity of organic processes (very largely outside the realm of consciousness) also extends into the physical space surrounding the body—in a way that potentially, through feedback signals or in other ways, can be brought under the influence of the conscious mind. Denial of the possibility of this sort of predominance of mind over the physical universe was one of the key arguments by which science bested religion in the days when it was fashionable to talk of "science vs. religion." If the findings are substantiated by later research, they open up the possibility of asking a host of questions (e.g., about correlations between the production of psychokinetic phenomena and other physical and physiological variables) which were very difficult to explore as long as there were no dependable repeatable psychokinetic phenomena to study.

Dean Jahn describes his preliminary explorations in a paper entitled "Psychic Processes, Energy Transfer, and Things That Go Bump in the Night," which can be obtained from the Office of the Dean, School of Engineering and Applied Science, Princeton University, Princeton, N.J., 08540.



Escher

The Labyrinth

Anthropos apteros* for days
Walked whistling round and round the
Maze,
Relying happily upon
His temperament for getting on.

The hundredth time he sighted, though,
A bush he left an hour ago,
He halted where four alleys crossed,
And recognized that he was lost.

'Where am I? Metaphysics says
No question can be asked unless
It has an answer, so I can
Assume that maze has got a plan.

If Theologians are correct,
A Plan implies an Architect:
A God-built maze would be, I'm sure,
The universe in miniature.

Are data from the world of Sense,
In that case, valid evidence?

What in the universe I know
Can give directions how to go?

All Mathematics would suggest
A steady straight line as the best,
But left and right alternately
Is consonant with History.

Aesthetics, though believes all Art
Intends to gratify the Heart:
Rejecting disciplines like these,
Must I, then, go which way I please?

Such reasoning is only true
If we accept the classic view,
Which we have no right to assert,
According to the Introvert.

His absolute pre-supposition
—Man creates his own condition:
This maze was not divinely built
But is secreted by my guilt.

The centre that I cannot find
Is known to my Unconscious Mind;
I have no reason to despair
Because I am already there.

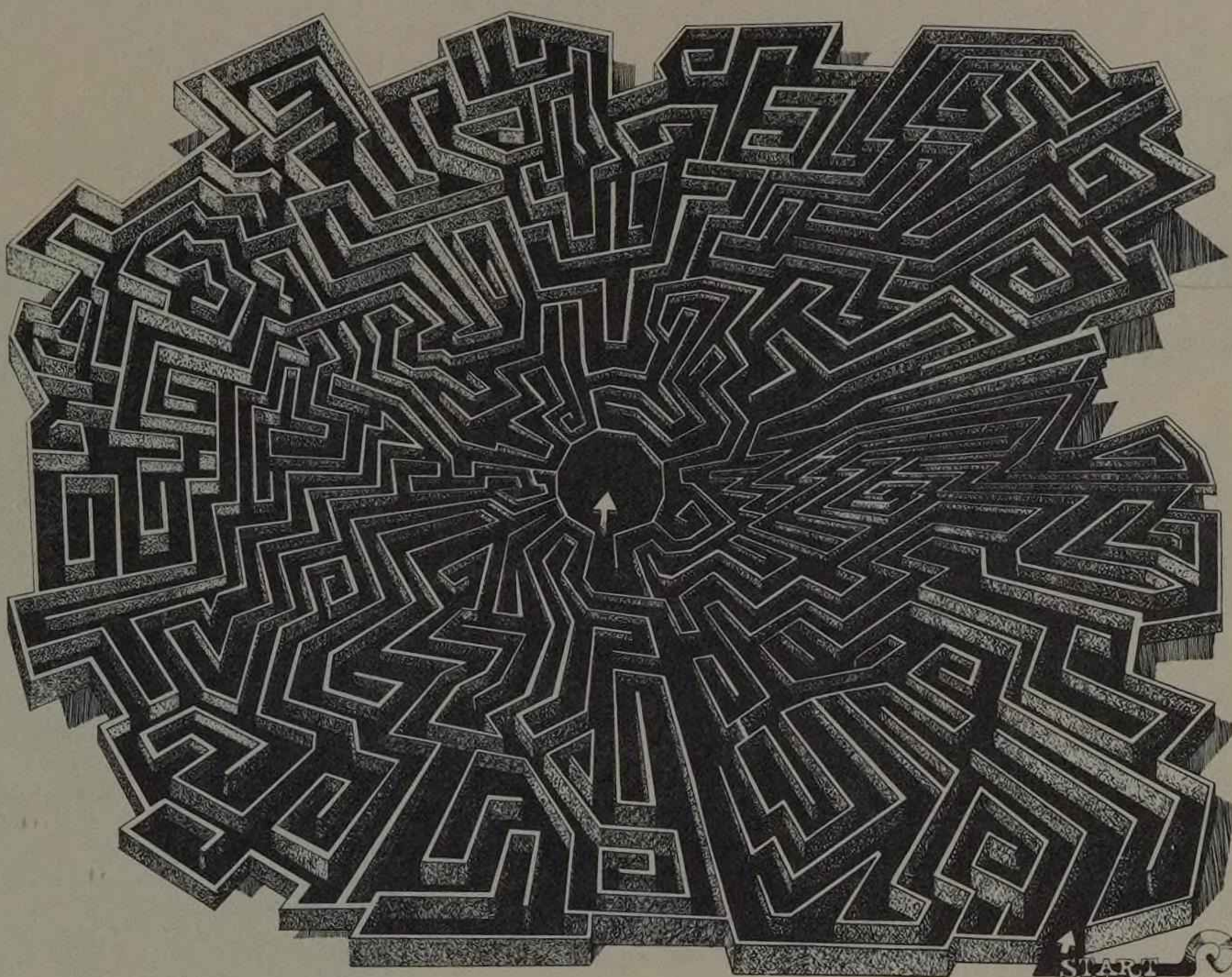
My problem is how not to will;
They move most quickly who stand still;
I'm only lost until I see
I'm lost because I want to be.

This should fail, perhaps I should,
Like certain educators would,
Content myself with the conclusion;
The theory there is no solution.

My statements about what I feel,
Like I-am-lost, are quite unreal:
My knowledge ends where it began;
My hedge is taller than a man.

Anthropos apteros, perplexed
I know which turning to take next,
I looked up and wished he were the bird
To whom such doubts must be absurd.

W. H. Auden



*Translation: "Man Without Wings"

NIMH Grant Report Holistic Medicine Book Available Soon

The IONS Holistic Medicine Project will soon complete an extensive reference book and annotated bibliography on holistic medicine for the U.S. National Institute of Mental Health. The book will be published by the government and will also be available as an IONS publication.

The book consists of 27 chapters on topics ranging from socio-ecological health factors, through the use of the mind in health, to alternative health care approaches. Each chapter is contributed by an expert in the field, who discusses the topic and provides an annotated list of basic books, articles, and research reports.

The project was scheduled to be completed this fall, but then received a request from NIMH to add several additional topics, which extended the contract to the end of the year.

The research is directed by Dr. Arthur Hastings and Dr. James Fadiman. They will be editors of the book along with Dr. James Gordon of NIMH.

The Institute of Noetic Sciences was selected for the federal contract because of its research and educational activities in holistic health and its extensive network of consultants and researchers.

The topics that are in the book include holistic paradigms, ecology, social context, family, traditional systems, use of the mind, meditation, hypnosis, autogenic training, placebos, nutrition, herbs, touch, psychic healing, physical fitness, homeopathy, color and light, music, childbirth, stress, dentistry, aging, dying, alternative health centers, self-care, and the future of health care.

Members and friends of the Institute can receive information on purchasing of the book by sending in the coupon.

**Mail to: Institute of Noetic Sciences,
600 Stockton Street, San Francisco, CA 94108**

- Please send me information on *Holistic Medicine* when the book becomes available.
- Please reserve a copy for me.

Name _____

Address _____

City, State, Zip _____

PROJECT UPDATE:

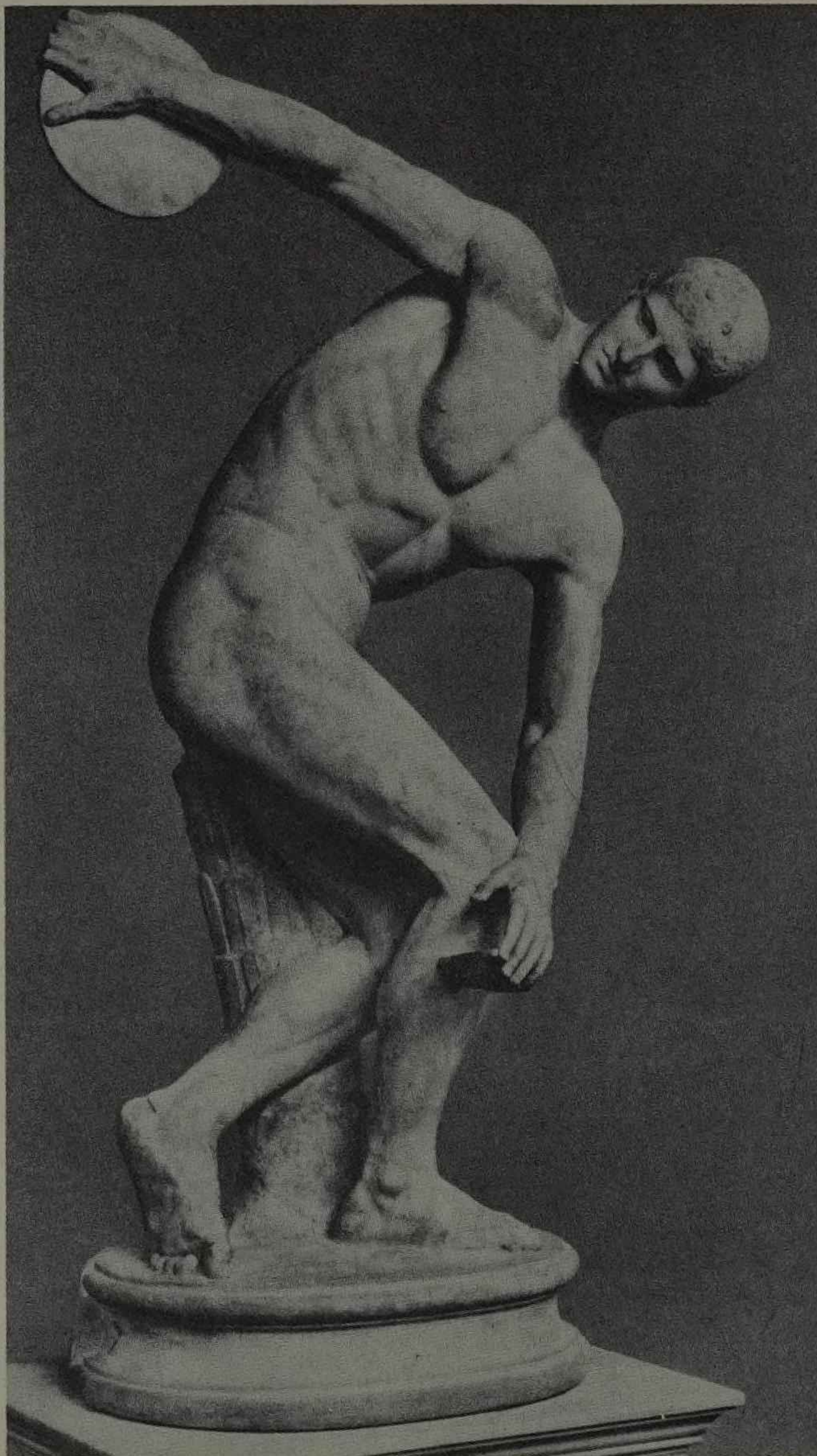
HOLISTIC HEALTH

—Cliche or Challenge?

*Report on Holistic Health Survey
by the Institute*

In the past year, we have seen both the interest and opposition to what is being called the Holistic Health movement build to quite sizeable proportions. On the one hand, the size of the public following the movement and seeking alternative therapies under the aegis of Holistic Health has continued to grow. In parallel with this, the establishment of the medical profession has begun to raise questions about the movement and its practitioners. The most common criticism one hears is that many of the people practicing one technique or another under the umbrella of "holistic" techniques have no proper medical credentials and are therefore "quacks". The other main criticism is that most, if not all, of the techniques of holistic health have no proven scientific validity at all and should therefore not be presented to an unsuspecting population as legitimate.

The practitioners present the other side of the coin and point out that whether or not their techniques are understood in the scientific manner, they work in practice and that many of their patients get well, including some who have not been helped by any of the available technologies in traditional medicine. This latter point is perhaps the most intriguing since it would indeed appear to be the case that the most frequent proving ground for these techniques is often the incurable or chronic patient. The debate then usually continues with the traditionalist arguing that when these techniques work, it is clearly the work of the placebo effect and not because of any "real" effect caused by the technique in question. To which the holistic practitioner responds by saying: "Fine, what better medicine is there than one which is internal, non-invasive and without side-effects?" One is reminded here of the distinction drawn by Harris Coulter in his three-volume work *Divided Legacy* in which he traces the history of the two main traditions in medicine — the Rationalist Tradition, which operates in terms of theories of how things "ought" to be and follows the scientific model and the Empirical Tradition, which is concerned with



whatever works, whether it is understood or not. In a recent paper, homeopath Dana Ullman analyzes both schools and comes to the conclusion that the real nature of the debate between the two schools today places the traditional medical establishment firmly in the Rationalist Tradition and the holistic practitioners in the Empirical school of thought.

As we mentioned in our last Newsletter, the Institute of Noetic Sciences began a study of the Holistic Health Movement several months ago. Now the first phase of that study is complete and the final report by Phyllis Matson, M.S., M.S.Hyg., is in its final editing stages. Ms. Matson traces the essential beliefs of the Empirical Holistic approach as follows:

(1) The unity of mind, body and spirit

(2) An involvement with the spiritual domain

(3) The belief in "energies" which surround all things and beings

(4) The value of each individual's and all cultures' healing practices

(5) The equality of patients and practitioners

(6) Self-responsibility for health

(7) Stress as the major cause of all illness

(8) "Here and Now" time orientation

The paper as a whole analyzes the detailed meaning of each of these beliefs as stated by the practitioners and then contrasts them with the (usually) opposing points of view held by the Rationalist scientific school of medicine. A further part of the analysis presents the direct contrasts between the two models as follows:

Comparison of Holistic and Western Medical Systems

	Holistic	Western
Ideological ideas	<p>Systems view: Integration of parts, especially emotional, physical, spiritual.</p> <p>Dynamic view of nature: Belief in energies", life flow, channeling of energies for healing.</p> <p>Stress as underlying cause of disease; generalization of stress more important than locus of pain.</p>	<p>Reductionist view: separation of mind/body to exclusion of spiritual parts.</p> <p>Mechanistic view of nature: To be dissected, manipulated, harnessed, including man.</p> <p>Mechanical, chemical forces as underlying cause of disease with focus on location of pain. Stress acknowledged, but secondary.</p>
Social structures	<p>Patient responsible for healing Practitioner is guide-facilitator-counselor. Equality of patient-practitioner.</p> <p>Equality of different kinds of practitioners.</p> <p>Training of professionals often by apprenticeship, self-study.</p>	<p>M.D. responsible for curing. Patient responsible for compliance to doctor's orders. Doctor knows everything, more like parent-child relationship. Strict hierarchy of medical professions; no interaction with other healing professions (chiropractic and others). Training only in accredited schools.</p>
Functional Relationships with other parts of culture	<p>Pay-as-you-go clientele.</p> <p>Small scale institutions; little bureaucracy, highly individualistic. Higher income, educated clients.</p> <p>Integration of religion in healing. Interest in environment/ecological movements.</p>	<p>Reimbursement by insurance and government — big national involvement. Many large institutions subject to much bureaucracy. Unmet needs greatest among lower income members. Separation of religion from healing. Involvement with political and legal segments of society.</p>
Technology	<p>Specialized, but eclectic. Preference for generalized diagnostic methods. Treatment avoids drugs and surgery, depends on gentler and systemic methods.</p>	<p>Highly specialized. Preference for mechanized "objective" diagnosis (lab work, X-ray). Treatment depends heavily on drugs and surgery.</p>

It is clear from looking at this table of comparisons that in many ways the two schools differ radically in their positions. It is also clear that a totally polarized position with respect to either would seem to lead inevitably to "irreconcilable differences" that would mean that neither could grow to appreciate the positive points in the other

school. We have begun to witness the application of the scientific method to the analysis of some holistic techniques and so it would seem that there will be at least some movement of the Rationalist into the validation of the Empirical practices; a complimentary movement in the opposite direction seems unlikely, but given the potential

economic breakdown of further reliance on the old model [see piece by Carlson: "What is the Crisis in Medicine Really About?], it would seem that some change must occur and soon. If both sides could resolve to bury their differences and work together, then surely we would have the best of both worlds?

-Brendan O'Regan

WHAT IS THE CRISIS IN MEDICINE REALLY ABOUT?

by Rick Carlson

"The cost of health care in the U.S. is now rising at a rate of more than one million dollars per hour"

Joseph Califano
Secretary, HEW

The accomplishments of medical care are many and benefits continue to flow. According to many measures, as a people we are healthier than ever. Nevertheless, some questions continue to be asked, and with growing insistence. Are the health problems the medical care system most effectively addresses the most serious of the problems which afflict us today? And if they are, is the medical response to these problems necessarily the most effective? Further, are there major health problems that have not been or cannot be effectively addressed by medicine?

Medical care has become proficient in the diagnosis and treatment of disease. But as it has evolved, it has excluded at least as many variables that are determinative of health as those which it has included.

Most knowledgeable observers agree that future improvements in the health of our population are not likely to flow from continued investments in medical care alone. We need to retain the best of what medical care has to offer, and seek further gains in the health of our population through new programs which address the other determinants of health. This won't be easy, but much of what we need to do is not new; it has only been forgotten.

Prior to the industrial era, life was characterized by a simple diet, exposure to the outdoors and to the elements, hard but productive labor, often outdoors, more regularity of sleep, often more naturally wedded to night and day, little long-distance travel, a set of interpersonal relationships that seldom varied, and the nurturance of the extended family.

Today all or most life-functions have been altered for much of the population: diets are richer, more complex, and laced with a variety of chemicals; our lives are spent mostly indoors under artificial lighting conditions, in filtered air and controlled temperatures; people work hard, but seldom with their bodies and often during hours least consistent

with their own physical time clocks; work has been compartmentalized from the rest of life as something one has to go somewhere else to do; many travel extensively, often crossing time zones, and even those who do not travel spend more and more time just getting to and from work, almost always by conveyance.

Finally, high mobility and the erosion of community have resulted in the diffusion, if not the elimination, of many traditional psychosocial supports. Whether these altered living conditions are conducive to ill health is impossible to prove. What can be said is that the person who experiences such conditions today is essentially the same animal that evolved for centuries under conditions that were greatly different.

Prior to 1900 the major killers were not chronic in nature; they were largely infectious and occasionally pandemic. The age of the great epidemics—cholera, yellow fever, and smallpox—extended in this country from roughly 1800 to 1970, and coincided with a period of rapidly increasing industrialization and urbanization.

This period introduced a variety of adverse health conditions—overcrowding, poor housing conditions, polluted water supplies, contaminated food and milk, poor nutrition, bad air, inadequate or non-existent sanitary systems, and long hours of overwork. These conditions weakened people and left them vulnerable to a broad range of infectious diseases—pulmonary tuberculosis, diarrheal diseases of infancy, bacillary dysentery, typhoid fever, and the infectious diseases of childhood, particularly scarlet fever, diphtheria, and lobar pneumonia.

The major health gains in Europe and in the United States prior to the 20th century were due to improved nutrition, limitations on births, and sanitary reforms. By the 1970s, despite the lack of effective therapies, the great epidemics were on the wane, the tuberculosis death rate had begun to fall, and the crude death rate had begun a steady decline.

By the turn of the 20th century, bacteriological research and newly discovered medical technologies began to have an impact as they were applied through public health programs. These technologies were effective and relatively inexpensive. Today in the United States most infectious diseases (with the exception of some respiratory viral illnesses) are either under effective control or at least have been offset by bio-

chemical one-up-manship.

But new health problems have arisen that may not be as easily solved by techniques now available. These include illnesses which are associated with stress, chronic conditions which result from multiple influences, accidental trauma and death due principally to the motor vehicle and acts of violence, degraded environmental conditions, smoking, overindulgence in rich and refined foods, and many other poor health habits which are related to the onset of disease. Some new problems may also be the result of rapidly changing ecological patterns.

These new health problems have three common elements:

- They often are the consequences of multiple insults to our bodies, many of which have not yet been identified, but to which we may be poorly or incorrectly adapted.
- They may be the result of our having failed to improve or even to maintain bodily strength due to such environmental insults, and to a series of debilitating life-style choices including lack of exercise, poor dietary practices, and overconsumption of poisons, either voluntarily or involuntarily (as in the case of smoke produced by industrial or individual polluters).
- They may also stem from a degraded psychosocial environment including the disintegration, or at least weakening, of major social support systems, including families, churches, and neighborhoods.

In combination these points suggest:

- Many of the major health problems of today may call for preventative rather than curative measures, not only because prevention may be more cost-effective, but also because we have a clearer understanding of the factors which either cause or predispose an individual to illness or injury.

Many of these problems might be more effectively controlled by measures focused on the population than by the treatment of individuals.

Early in this century the major diseases could be controlled by the almost exclusive focus on bio-chemical or surgical therapies. This approach is producing diminishing returns, particularly with respect to the health of the entire population. Today what is needed is more emphasis on strengthening our bodies and on improving the quality of the environment. In short, we need the medicine we have, when and where it works. But improved health depends on the determinants of health being other than medical care.



New Realities

RICK CARLSON Joins Staff as Co-Director of the Superhealthy Project

The Institute is pleased to welcome Rick Carlson, J.D., as the newest member of our staff. A lawyer by profession, Rick has been centrally involved in the health planning and policy field for several years now. He has written *The End of Medicine* (Wiley 1975) and edited *The Frontiers of Science & Medicine* (Regnery 1977) as well as organized a series of conferences under the general title "Future Directions of Health Care in the U.S.," with Blue Cross, The Rockefeller Foundation and the University of California Medical Center, San Francisco as co-sponsors. Though he lives in Mill Valley, California, Rick holds positions with the Institute of Medicine in Washington, D.C. and with the Boston University School of Medicine.

His role with the Institute of Noetic Sciences will be as Co-Director and the major organizing force behind our project, "The Search for the Superhealthy" with Brendan O'Regan, Director of Research of the Institute. In recent months, Rick has also been working with the Commonwealth Project in Bolinas, California and working on a new book entitled: *Being Fit: A Guide to Getting There* with Richard Kipling. As this brief resume indicates so clearly, Rick is a man of many talents and we take great pleasure in welcoming him as part of our work at the Institute.

Books Received

Books Reviewed after Publication of 1978 Spring Newsletter

Alcoholics Anonymous World Services, Inc., *Alcoholics Anonymous Comes of Age*, A.A. World Services, N.Y., 1973, \$5.00, 333 pp.

Alcoholics Anonymous World Services, Inc., *Twelve Steps and Twelve Traditions*, A.A. World Services, 1978, 192 pp.

Alcoholics Anonymous World Services, Inc., *Alcoholics Anonymous*, A.A. World Services, 1976, 575 pp.

Anderson, Paul, *The Earth Book of Storm Gate*, Putnam, N.Y., 1978, \$10.95, 390 pp.

Asichis, Gordon Allen, *The Constant Travelers*, Putnam, N.Y., 1978, \$9.95, 340 pp.

Brennan, Fabir, *Color in Your World*, Collier, 1978, \$2.95 (paper) 112 pp.

Brandon, Jim, *Weird America*, Dutton, N.Y., 1978, \$4.95 (paper), 260 pp.

Hubba Free John, *The Way That I Teach*, Dawn Horse Press, Ca., 1978, \$5.95 (paper), 258 pp.

Jowles & Hynds, *The New Investigation of Psychic Phenomena*, Harper & Row, 1978, \$6.95 (paper), 168 pp.

Casselmann, Robert C., *Continuum*, Richard Marek, 1978, \$9.95, 272 pp.

Cullinan, Thomas, *The Bedeviled*, Putnam, 1978, \$10.00, 283 pp.

Fiore, Edith, *You Have Been There Before*, Coward, McCann, Geoghegan, N.Y., 1978, \$8.95, 255 pp.

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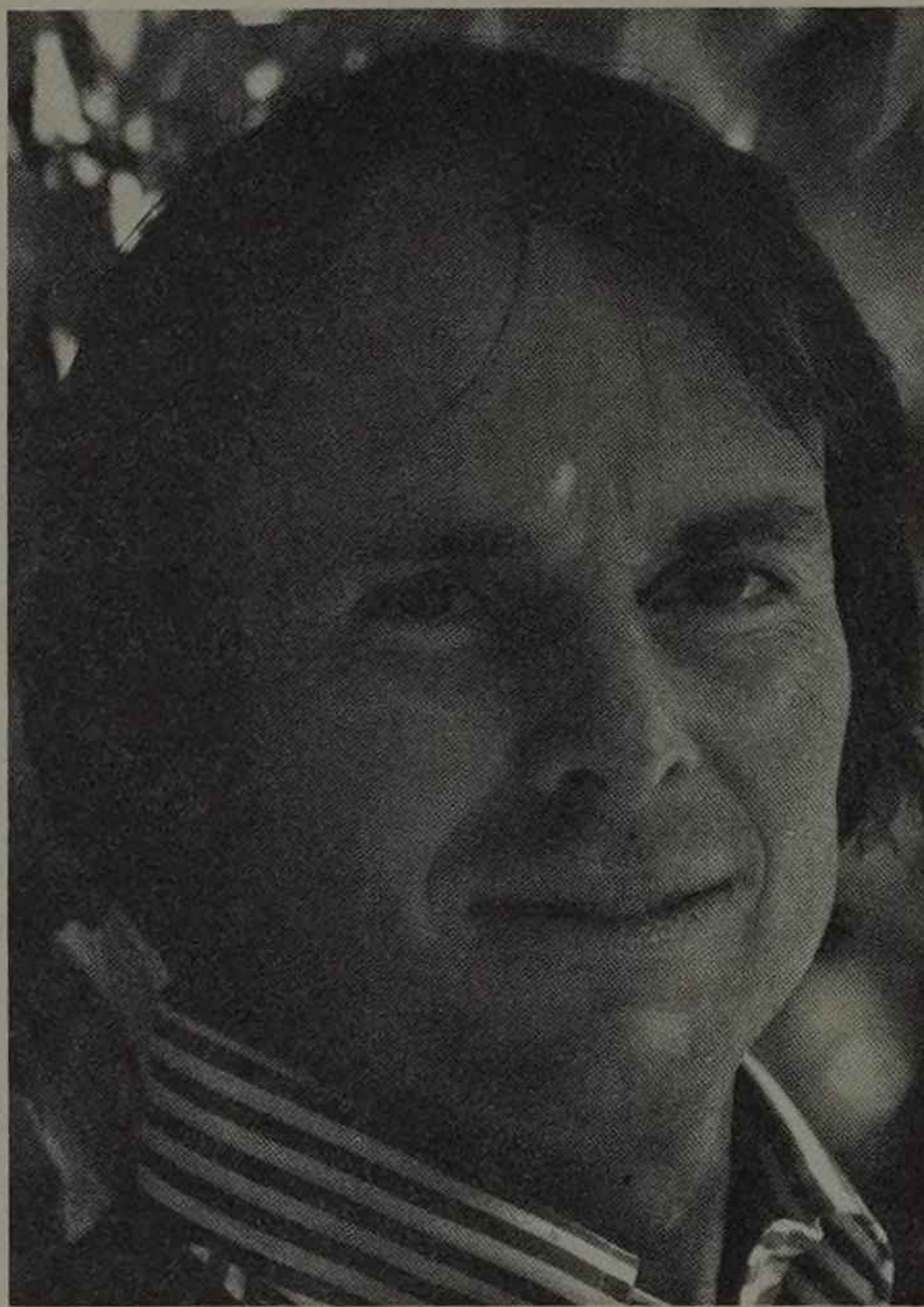
TRANSFORMATION: TOOLS FOR CHANGE

by Michael Murphy and James Hickman

The Transformation Project, begun in 1976, is a systematic comparative study of extraordinary human functioning and the mental and physical strategies which accompany it. Project Director Michael Murphy, Associate Director James Hickman and their research staff (Keith Thompson, Mary Payne, Dulce Murphy) are exploring a variety of high-level human potentials which are accessible to conscious control and they are studying the ways in which such capacities manifest themselves. The research focuses on three major areas.

1. Information gathering.

An exhaustive literature search is underway to collect anecdotes from various realms of human experience that illustrate the body's potential for extraordinary transformations of capacity and form. Such experiences illustrate the role of consciousness in structuring awareness and physical expression. For example, hypnosis research clearly demonstrates that through suggestion many people can win significant freedom from pain, disease, and allergy, change the structure of their bodies, and increase certain skills and capacities. Placebo research shows that belief in a sugar pill can help people lower the amount of fat and protein in their blood, change their white cell count, reduce post-operative wound pain, relieve depression, eliminate the symptoms of withdrawal from morphine, and demonstrates how specific and effective human self-regenerative powers can be. Biofeedback investigations suggest that any aspect of a person's chemistry or physiology that can be brought to awareness directly or through instruments can become, within certain limits, accessible to conscious control. Visualization and meditation therapies have become increasingly successful in treating life-threatening diseases such as cancer. Soviet research in "Psychic Self-Regulation" indicates that the general population possesses an innate capacity to mentally regulate physiological functioning, a capacity which may be a significant unconscious contributor to disease or health. Numerous stories from the lives of saints suggest that stigmata, bodily luminosity, and levitation



New Realities

often accompany extended contemplative activities. Sportspeople report spontaneous feats of supernormal strength, endurance, and perception which arise during athletic events. These multiple reports from a variety of sources, spread over many centuries and almost every culture which illustrate the human tendency toward bodily transformation are being strengthened through interviews with outstanding athletes, healthy individuals with physical disabilities, individuals who practice a transformational discipline, highly creative individuals, individuals with prolonged lifespans, and others. These interviews focus on the environmental conditions, physiological and personality characteristics, and mental frameworks and belief systems which accompany the experiences recorded.

2. Modalities of transformation.

From the research outlined above we are deriving a description of the basic and universal elements of psycho-physical transformation. These "transformational modalities" are the ways and means of stretching present forms and growing into new structures and capacities. Such exotic powers as "inner seeing" and "inner hearing" are often involved in the dramatic changes under investigation. Some distance runners, for example, have seen images of bursting capillaries during rigorous training,

and one champion bodybuilder reported that he "heard" his muscles growing in his sleep when he was training heavily. These and similar elements seem to be fundamental to transformational processes and can be cultivated in order to facilitate psycho-physical development. A summary of these ideas may be found in Chapter 6 of the forthcoming book *The Psychic Side of Sports* by Michael Murphy and Rhea White.

3. Experimental research.

We are developing personal disciplines which incorporate techniques common to the experiences under investigation. Our goal is to integrate the spiritual, mental and physical aspects of human nature through a multi-faceted approach. The fundamentals of such an integral practice are daily meditation, continuing self-observation, a disciplined physical conditioning program (including running, stretching and bodybuilding), and special exercises to increase control and awareness in the body. Our subjective observations are being recorded and an analysis of their effects is planned for the future. Some of the special methods we are using to increase awareness and control of the body are: "inner seeing" (the direct perception of internal bodily structures down to the microscopic level); "inner hearing" (the perception of sounds arising from the body or from subtle levels of consciousness); "cross-sensing" (exercises to facilitate synesthesia); and Russian methods of psychic self-regulation (including methods derived from autogenic training, hypnosis and yoga). We meet about once a week to review our experiences, study materials related to the project and plan future activities. Some of us meet more frequently in order to practice these disciplines together or discuss related concerns. Each of us is committed to a long-term exploration of these areas and we intend to continue seeking the necessary support to keep the project going.

Editor's Note: For a glimpse of one of the first products to result from the research done in documenting this project to date, see the following review by Brendan O'Regan of the forthcoming book *The Psychic Side of Sports*, by Michael Murphy and Rhea White.

BOOK REVIEW

The Psychic Side of Sports

by Michael Murphy & Rhea White
Addison Wesley
Reading, Massachusetts, 1978, \$5.95.

Here is a book guaranteed to raise the adrenaline count of any true-blue sceptic! The book will be especially maddening to the sceptics since it manages a truly octopus-like approach to the subject of connecting what was until now an apparently uncontaminated and safe activity, sports, with all the apparent rationalist impossibilities of the psychic. Like the proverbial bad penny, the psychic keeps turning up in all aspects of contemporary life, thereby convincing some that delusion is once again on the march through our culture. And what is worse, it would appear that the association is not only to the fringe aspects of

sport but to the very core of record-breaking performance by the best-known names in almost every sport and in every culture.

The book is replete with so many examples, piled layer upon layer, that it becomes hard to ignore the overall case. The parallels between the reports of so many athletes, mountain climbers, racing car drivers, skiers and so on are so clear that it appears possible to extract a number of common denominators of the kind of experience that occurs when a breakthrough to a higher level of performance is achieved. Sudden alterations in the sense of time and space seem to take place. In many sports where speed of action is essential, time appears to "slow down" for the player in question and actions can be followed in

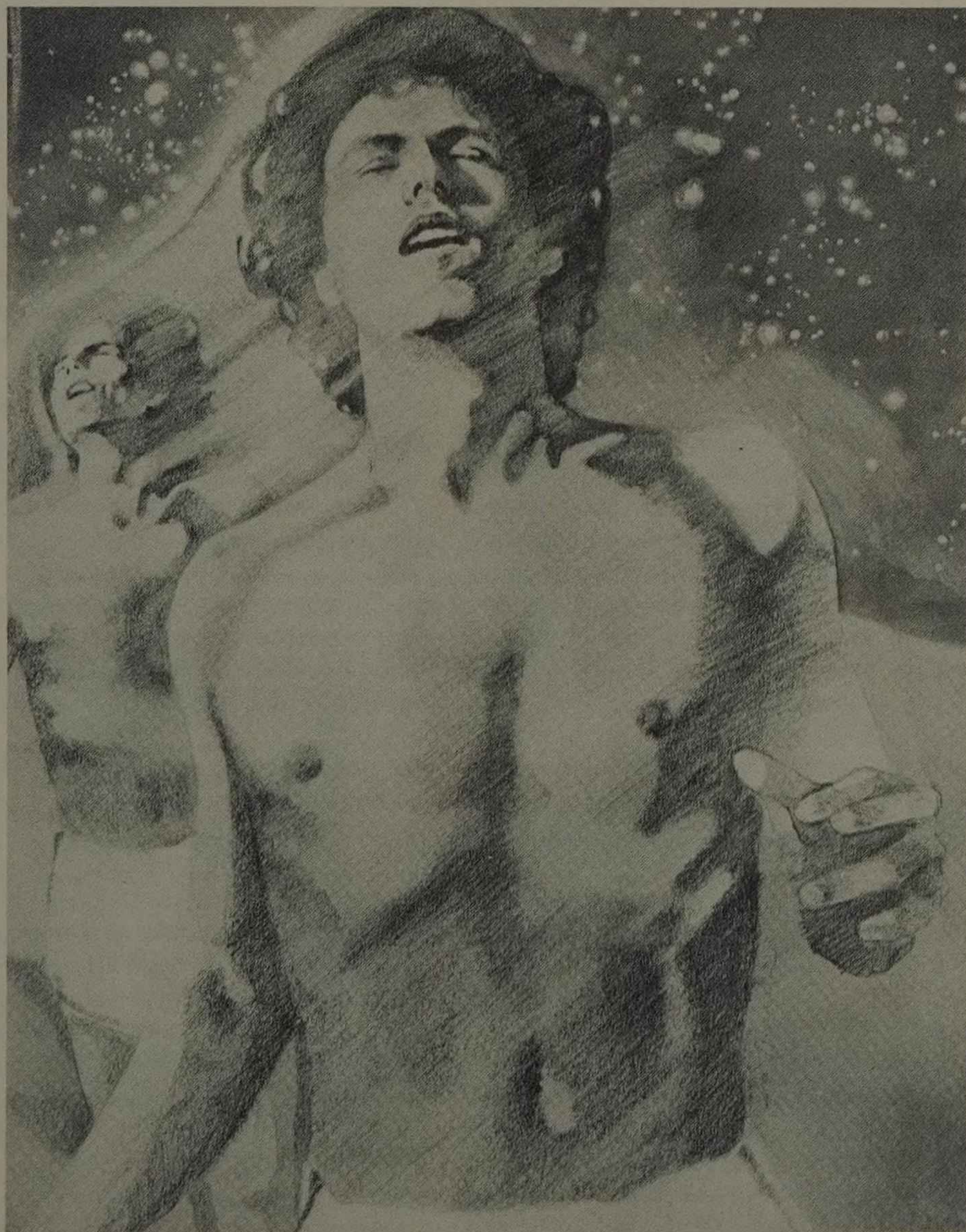
the luxury of slow motion. The same appears to be true of racing car drivers, e.g., Jackie Stewart is quoted as follows:

"Some days you go out in a race car and everything happens in a big rush. You don't seem to have time to change gears or brake and the corners are all coming up too quickly. You're not synchronized. And thus the most important thing is to synchronize yourself with the elements that you're competing against, the motor car and the track. Your mind must take these elements and completely digest them so as to bring the whole vision into slow motion."

Such "slowing down" of time perception has also been reported in the case of many who have had serious accidents and near-death experiences, as well as in cases where hypnosis has been used to alter a person's subjective experience of time. In the latter case, performances which would normally take as much as several hours are completed in minutes or seconds, as in the case of the solving of design problems or musical composition.

Throughout the book, we also learn about specific extraordinary abilities that well-known athletes possess. For example, mention is made of soccer star Pele's extraordinary peripheral vision, which according to one report is about 25% better than that of other athletes. In other cases, it seems to be that people who have achieved a high level of performance reach their record-breaking potential through the occurrence of some unusual state of mind, either by intention before they take part in a sport or through the extreme need of the situation while in action. A partial list of the various kinds of abilities, their psychological counterparts and an example of its occurrence in a sport appears on the following page.

The authors point out that in many cases, one cannot *prove* absolutely that the events involved here are purely cases of ESP and the like; rather they point out that in many cases, some essential difference was made because of an individual's sudden capacity to perform a feat against impossible odds. The book abounds with examples of this, though in most cases the appropriate limitations on the example are pointed out.



Jim LaMarche from *Runner's World*, May 1978

Continued on next page

SPORTS/cont. from page 17

The authors go on to suggest the connections between these phenomena and the mystical traditions underlying aspects of sport and play. They quote Johan Huizinga from his work "Homo Ludens:"

"Into an imperfect world and into the confusion of life (the boundaries of sport) bring a temporary, a limited perfection. Play demands order absolute and supreme. The least deviation from it "spoils the game," robs it of its character and makes it worthless. The profound affinity between play and order is perhaps the reason why play seems to lie to such a large extent in the field of aesthetics."

In case you are wondering about how well documented the material is, suffice it to say that there is a bibliography of 538 references, all page-referenced and mentioned in the text itself. There is also a note of caution:

"By exploring these events in detail, will we raise false hopes that athletics is a special path to mystic insight? We will respond to part of that question at once by saying no, sport does not provide a guaranteed way to the Mysteries. . . . Part of its glory is that it is not . . . we don't want to ruin the fun we are having by loading sport with unnecessary baggage."

In fact they continue and point out that:

"The mystical moment occurs as often as it does in sport in part because you don't have to have one."

Toward the end of the book, the authors summarize the connections between all the information they have documented and the connections to the frontiers of contemporary mind-body research and provide yet another excellent reason why this kind of research rather than being relatively neglected as it is today should become a matter of paramount concern to us all.

In summary, by mobilizing the awareness of the massive number of people interested in sports today toward a realization of the integrated values, both spiritual and physical, that sports can stimulate in our lives, it is just possible that *The Psychic Side of Sports* may do more to stimulate our sense of self-responsibility for health in every domain than all the lectures in the world. But remember, as the old Zen Buddhist pointed out: if you experience illumination while chopping wood, keep chopping wood.

- Brendan O'Regan

Siddhi	Equivalent Psychological Power	Accomplishments in Sport
<ul style="list-style-type: none"> • Exceptional control of bodily processes, feelings, thoughts, imagination and other mental functions. 		Pulse, heartbeat, breathing, and other physiological processes come under extraordinary control when a runner does the marathon in a little over two hours (which means an average of better than a mile every five minutes for the entire 26 miles), or when underwater swimmers hold their breath for more than five minutes at depths of up to forty feet, or when a race driver makes the hairpin turns required in Grand Prix driving.
<ul style="list-style-type: none"> • Ability to change shape, size and mass. 	Psychic mobility, altered consciousness.	Morehei Uyeshiba, the inventor of aikido, seemed to change his shape and size in the swirl of a free-form match. Drastic changes in body image have been reported by golfers, football players, ocean divers, skydivers, and mountain climbers.
<ul style="list-style-type: none"> • Auras, halos, the odor of sanctity, emanations of extraordinary energy. 	Acting as a channel for other levels of the universe, "manifesting the Divine," mystical and creative illumination.	A skydiver saw "forms of light tumbling down the wind around her" during a jump in which she was suspended on a thermal updraft for over an hour. For BUNDINI BROWN, Muhammad Ali glowed in the dark in certain extraordinary moments. (386)
<ul style="list-style-type: none"> • Psychokinesis; moving objects at a distance through psychic power. 	Mastery of the mind and emotions; will-power in general.	Former quarterback John Brodie wrote, "I would have to say that such things seem to exist—or emerge when your state of mind is right. An intention carries a force, a thought is connected with an energy that can stretch itself out in a pass play or a golf shot or a thirty foot jump shot in basketball. I've seen it happen too many times to deny it." (393) It is a legendary power among certain pool and billiard players, among golfers, and in archery and target shooting.
<ul style="list-style-type: none"> • Ability to pass through solids, porousness. 	Inner emptiness and freedom. Loosening of ordinary psychic structures and boundaries. Mental and emotional fluidity.	Pele: "I felt that I could dribble through any of their team or all of them, that I could almost pass through them physically." (378: p. 51) In aikido and kung fu there is something called "mesh practice" in which the participant imagines—then becomes—a net through which an opponent's energy and body may pass.
<ul style="list-style-type: none"> • Precognition, prophecy, retrocognition, time travel. 	Freedom from tyranny of the past, present, or future. Psychic mobility.	David Meggyesey claims he made many tackles because he could anticipate the moves of the other team's running backs: somehow he knew what they would do an instant before they did it.
<ul style="list-style-type: none"> • Feats of extraordinary strength and endurance as with <i>lung gom</i> walkers who, it is claimed, can walk for weeks without stopping through the mountains of Tibet. 		Marathon running. Extraordinary moments of strength in weight lifting competition, in wrestling and boxing, and in every other sport.

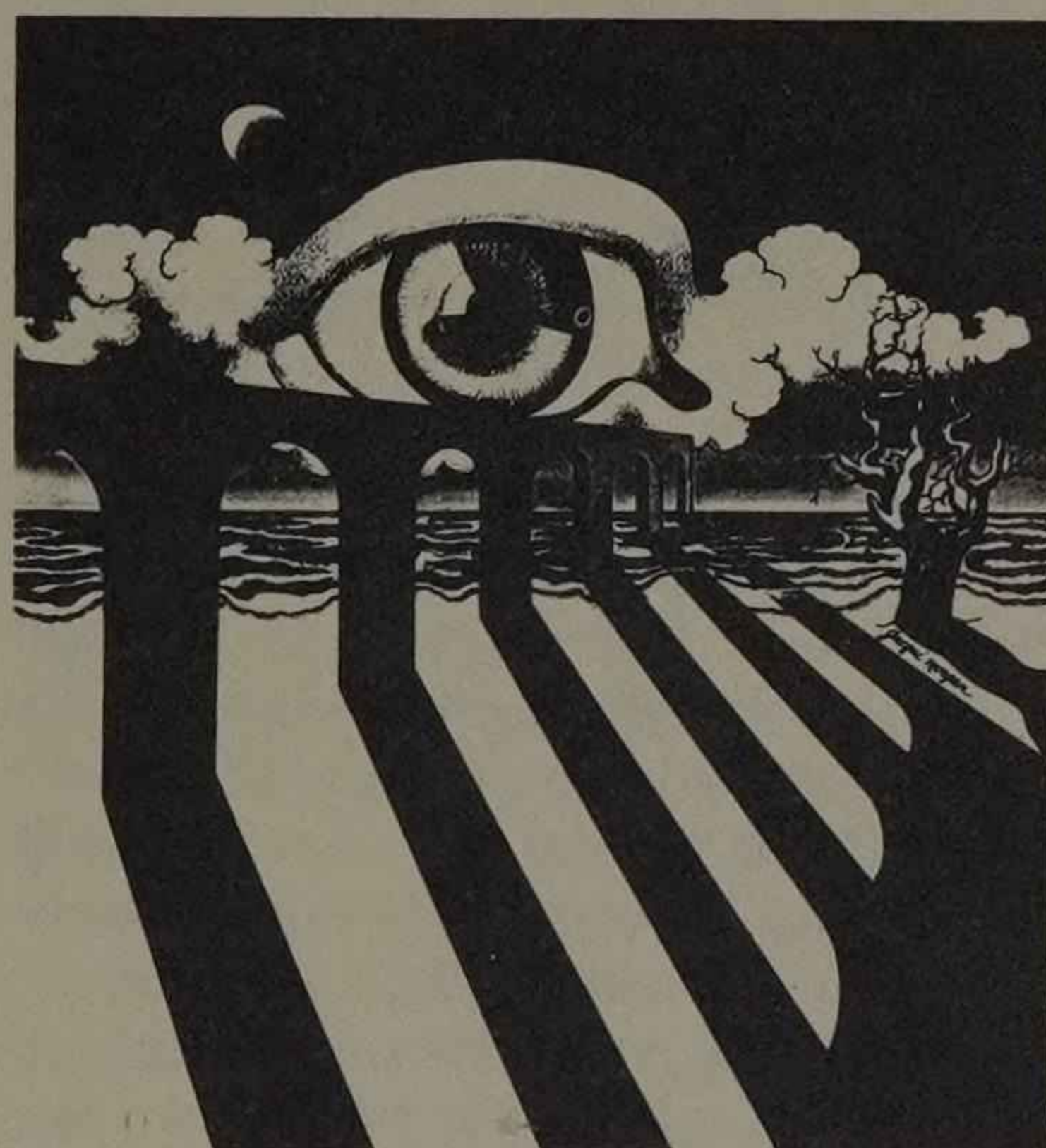
BOOK REVIEW

William James Revisits?

William James, American philosopher and author of *Varieties of Religious Experience*, died in 1910. Whatever that means. Surely in our ordinary "scientific" picture of things he could not have dictated a manuscript in 1977. Yet, in what will almost certainly be one of the more controversial books published in 1978, we have just such a volume, which purports to have been "dictated" in the mind of a contemporary writer (Jane Roberts, *The Afterdeath Journal of an American Philosopher*, Prentice Hall). Regardless of one's views on the proper explanation of such a happening, the book is pure James in flavor, and fascinating reading throughout.

The "author" begins: "This book will consist of a series of 'lectures' held in the theater of the imaginative mind, for it is in that larger dimension of experience in which I now have my being. No more will I address my colleagues in the hallowed academic halls, for there I will have lost the credentials that once brought me such respect, since the very conditions of my existence now would make me an outcast from such conventional gatherings. In the world in which I once so gladly took my place, the dead have few rights for their existence goes unrecognized . . . Freed by death from the conventional frameworks of thought and belief that surrounded me, I have gained in death insights and comprehensions of the greatest consequence. Ironically, I wonder why these did not come to me in physical life . . . when it is obvious that they were as available in life as in death—and I am convinced that only certain beliefs and attitudes of mind made these insights psychologically invisible." (pp 21-22)

He (William James, that is—if you accept his claim to be giving us an "afterdeath report") goes on to give us a lively commentary on his lifetime and accomplishments viewed from this new perspective; a candid admission that he had been somewhat "stuffy" and led an emotionless "bonedry life;" some pithy remarks on our understanding (or misunderstanding) of creativity; an evaluation of the works of Freud and Jung; an analysis of the state and importance of psychic research; some pertinent comments on revised views of health; and a fascinating account of his "afterdeath experiences." Even if one concludes that



Frank Barth

the book is pure fiction, or the unconscious product of the transcriber's imagination, the views are well expressed and extremely worthwhile reading.

The "author" himself declines to claim that his words should be considered to "prove" anything: "Even now . . . I shall not do so. (Instead) I hope . . . to state the case for an alternative hypothesis for science to follow. . . . It is a hypothesis based on the existence of a nonphysical soul or entity that provides inner direction, that emerges into time and space and exits; and on the projection of this soul or entity as being within all species to whatever extent, directing the overlife of the planet; and with cooperation rather than competition as the basic dictum." (pp 80-81)

His criticisms of current concepts of health care are trenchant. Example: "**Medicinal research . . . is done on the diseased. No one questions those who remain healthy, who do not visit the hospitals. No one looks for the secrets of the healthy or seeks to promote ways of making these generally known. . . . The idea of health becomes almost as fictional a quality as the existence of the soul; hardly any coincidence, for I believe that the same creative abilities that would give evidence of the soul are also those that would promote at least reasonable health throughout man's lifetime.**" (pp. 99-100).

In describing his own afterdeath revelations the author's descriptions are particularly fascinating: "Nowhere have I encountered the furnishings of a conventional heaven, or glimpsed the face of God. On the other hand, certainly I dwell in a psychological heaven by earth's standards, for everywhere I sense an . . . atmospheric presence that is well-intentioned, gentle yet powerful, and all-knowing. This seems to be a psychological presence of such stunning

parts, however, that I can point to no one place and identify it as being there in contrast to being someplace else. . . . This presence seems more like a loving condition that permeates existence, and from which all existence springs. . . . All theological and intellectual theories are beside the point in the reality of this phenomenon. I know that this presence or loving condition forms itself into me, and into all other personalities; that it lends itself actively to seek my good in the most particular and individual ways; yet that my good is in no way contrary to the good of anyone else, but beneficial."

From his new vantage point his view of good and evil "conflicts drastically with the ideas of good and evil as held by most religions. . . . For I see that repression is a denial of creativity; that evil acts are short-circuited well-intentioned ones, or good acts poorly performed or executed in such a distorted fashion that they appear twice as grotesque in the light of their seemingly opposite good intention. Yet to say that evil acts are the result of twisted, malfunctioning good would have sounded sheer Pollyanna to me in my lifetime. A philosopher who avoids dealing with good and evil is no philosopher at all. Yet the profound truth is that there is no evil to contend with, and this profundity requires that most compassionate understanding of humanity and an examination of man's nature in the light of its best rather than worst interpretation." (p. 171)

One final quote will further emphasize the point that whether or not you can "buy" the claim that this book represents a posthumous writing of James in the most literal sense, it is nevertheless full of gems worth reading and pondering. "Each person is equal to every other . . . when we recognize within each person the presence of an inviolate, eminently precious force of identity and meaning that possesses its own innate dignity. This dignity exists beyond our ideas of superiority or inferiority at any time in history, and the spirit within the individual is equal in all degrees to the spirit within each other person. A sane and benevolent society is one that will give that inner potential equal opportunity to fulfill itself according to its own directions and intent." (p 75)

Probably most of the readers of this newsletter would grant that some sort of new knowledge paradigm is emerging. Many of you will find in this book a very perceptive outlining of some of the characteristics of that new paradigm. It is of further interest to consider the possible source.

— Willis Harman

A SELF-FULFILLING FUTURE

By James Robertson

The industrial age is ending. Although many people still find it difficult to imagine anything other than a Business-As-Usual future, such a future is not feasible for the industrialized countries — or for the world as a whole. Limits — physical, social, psychological, institutional, conceptual — are closing in. Britain, the first industrialized country, is among the first to hit these limits. In other countries of Europe and North America industrialism may have a few more years to go, but not very many.

So what sort of post-industrial society do we want?

Leaving aside the possibilities of Disaster and Totalitarian Clampdown (both of which have their prophets), there are two sharply contrasting views of post-industrial society. I refer to them as the Hyper-Expansionist (HE) and the Sane, Humane, Ecological (SHE) future. The second is the kind of post-industrial society I would like to see. It will pay proper attention to the feminine principle, as contrasted with the over-masculinity of the first. It will be self-fulfilling in two senses. It will enable people to develop to the full; and it will come about of its own momentum, if enough of us see that it is possible and begin to make it happen.

Hyper-Expansion (HE)

The HE view of the future has been expounded by thinkers like Herman Kahn and Daniel Bell. They assume that the post-industrial revolution will be a transition to a super-industrial way of life. High technology industries like aerospace, computing and telecommunications will set the pace, supported by the knowledge-based, information-handling professions and occupations. The service industries will continue to overtake manufacturing as the growth points of the economy. Personal and social services, including the provision of care, amenity and entertainment, will continue to become more institutionalized and professionalized. By accelerating these existing trends in modern society — and by relying on advanced science and technology in areas like space colonization, nuclear energy, automation, genetic engineering and behavioral manipulation — the super-

industrialized peoples will be able to break out of further limits to material growth. According to this scenario the most important new frontiers and the most important new breakthroughs will continue to be geographical and physical, economic and technical. The assumption is that if European, scientific, expansionist, economic, masculine man will have the courage of his convictions, he will be able to brush aside (or at least bring under control) the political, social and psychological problems, as well as the economic problems, that beset industrialized societies today.

This approach to the future implies an ethic of elitism and domination in a class-divided world. Internationally it implies that, by becoming a super-industrialized country there will be two sharply polarized classes — a reasonable technocratic elite in charge of every important sphere of life, and the irresponsible unemployed masses with little to do but enjoy their leisure. Apart from one's moral reservations about this scenario, there are strong doubts about its technical and economic feasibility, and it also seems quite unrealistic from a political, social and psychological point of view. It may be best to regard it as a Utopian projection of the fantasies of the dominant technocratic elites in the affluent countries today.

A Sane, Humane, Ecological (SHE) Future

This contrasting view of post-industrial society is based on the assumption that the most important new frontiers are now psychological and social (personal and human), not technical and economic. Whereas the industrial revolution will be primarily about the development of things, the post-industrial revolution will be primarily about the development of people; it will enable human beings to break out of the psychological and social limits which thwart further progress today, just as the industrial revolution enabled them to break out of the constraints which limited their technical and physical capabilities some 200 years ago. This means that the transition from industrial to post-industrial society will involve a change of direction, not an acceleration of industrial trends.

Among the foreseeable changes of direction will be the following:

- from economic growth to human growth,
- from polarization of sex roles in society to a new balance between them,
- from increasing specialization to increasing self-sufficiency,
- from increasing dependence on big organizations and professional know-how to increasing self-reliance,
- from increasing urbanization to a more dispersed pattern of development,
- from increasing centralization to more decentralization of power,
- from increasing dependence on polluting technologies that waste resources and dominate the people who work with them to increasing emphasis on technology appropriate to the environment, to the availability of resources, and to the needs of the people,
- from increasing emphasis on rationality and the left-hand side of the brain to increasing emphasis on intuition and the right-hand side of the brain.

This multiple change of direction will come about because a growing multitude of different people will make it happen in a multitudinous variety of different ways. Among the most important are the following:

Lifestyles: changing one's own way of life so that it is more self-fulfilling.

Enabling (Liberation): helping other people to liberate themselves from dependence (e.g., on big organizations or big technology) and to become more self-reliant.

Enabling (Decolonization): managing the breakdown of existing institutions and relationships, so as to help people previously dependent on oneself (e.g., as a doctor) to become more self-reliant (e.g., about their own health).

Metaphysical Reconstruction: creating new visions of a self-fulfilling future, and developing the new concepts of power, wealth, work, growth, health and learning, which will be appropriate to it.

Only by recognizing the elements of the self-fulfilling future today can we help create it for tomorrow.

Note: "The Sane Alternative," in which James Robertson develops these ideas more fully, has been described by one North American reviewer as "probably the key publication of the decade." Copies are available from the author at 7 St. Ann's Villas, London W11 4RU, England. Price \$4.00 plus 60¢ surface mail or \$2 airmail, for packing and postage.

BOOK REVIEW

The Psychology of Science

by Abraham H. Maslow

Harper & Row, New York, 1966, 151 pp.

This book review, originally published 12 years ago in the *Journal of Humanistic Psychology*, is reproduced here by permission because of its likely interest for our readers. The book itself attracted little attention at the time, and remains unnoticed. From this review, however, it can be seen that Dr. Maslow again, in this book, demonstrates his prophetic abilities. Not only did he foresee the development of a noetic science years before astronaut Edgar Mitchell adopted the term, but he also provided a psychological analysis of the probable response of scientists to such a development.

This little book argues that the characteristics of science as a social institution, the content and organization of scientific knowledge as a description of the universe, and the nature of scientific methodology, are all influenced by the psychology of scientists to a degree we are unlikely to suspect. It is at once a discomfiting book and an inspiring book, certainly it is an important book. It is discomfiting because we can all recognize something of ourselves in Dr. Maslow's diagnoses. It is inspiring because of its implicit promise of a liberated science which will be "powerful and inclusive enough to reclaim many of the cognitive problems from which it has had to abdicate because of its hidden but fatal weakness—its inability to deal impersonally with the personal, with the problems of value, of individuality, of consciousness, of beauty, of transcendence, of ethics. . . . [It will] be capable of generating normative psychologies of psychotherapy, of personal development, of eupsychian or utopian social psychology, of religion, of work, play and leisure, of esthetics, of economics, and politics" (p. xiv).

The author is more bold and sweeping than most in his use of the word "science." "Science or knowledge in sum total can be considered a codification, a purification, a structuring and organizing of all . . . the shared experiences that we normally learn to call external reality" (p. 4). "If there is any primary rule of science, it is . . . acceptance of the obligation to acknowledge and describe all of reality, all that exists, everything that is the case. . . . It must accept within its

jurisdiction even that which it cannot understand or explain, that for which no theory exists, that which cannot be measured, predicted, controlled, or ordered. . . . It includes all levels or stages of knowledge, including the inchoate, . . . knowledge of low reliability, . . . and subjective experience" (p. 72). It is the author's contention that science becomes defined in some lesser, more restricted way than this because of psychological characteristics of scientists. "This book concentrates on science as a product of the human nature of the scientist" (p. xiii).

The psychodynamics of scientists are found to influence the nature and practice of science in at least six ways, which we may examine briefly below.

1. The individual scientist may utilize his activities in the service of his own security needs. "Science can be a defense . . . [as well as] a path to the fullest self-actualization" (p. 30).

"Good scientific words such as precision, exactness, quantification, reliability, and so on, "are all capable of being pathologized when pushed to the extreme. All of them may be pressed into the service of the safety needs, i.e., they may become primarily anxiety-avoiding and anxiety-controlling mechanisms" (p. 30). Thus what masquerades as scientific rigor and scrupulosity may sometimes be more precisely identified as the individual's compulsive need for certainty, or premature generalization to escape the pain of suspense, or a desperate hanging on to a generalization in the face of contradictory information, or a neurotic need to be tough and to control. Knowledge-seeking behavior can be a seeking for truth, beauty, and goodness in fullest humanness; but it can also be primarily defensive, compulsive, and anxiety-instigated.

2. The characteristics of scientific activity are in considerable measure a consequence of the personality characteristics of scientists. That is to say, the broad concept of scientific endeavor described above has become narrowed to a restricted definition of science as an anxiety-reduction move.

Thus, for example, one discerns in contemporary social science a prejudice toward objective data because of the uncomfortable unmanageability of experiential data—a relative neglect of the universe of inner meanings, of purposes, of the inner flow of experiencing. In fact, objectivity sometimes appears in a fetishistic role. The author makes the very useful distinction between the kind of objectivity which comes from not caring, not being identified with or involved

with, and the kind of objectivity which comes from caring, from loving the thing as it is in itself. The latter allows seeing the object "in a noninterfering way, . . . uncontaminated by your selfish wishes, hopes, demands, anxieties, or preconceptions" (p. 116). It is the kind of objectivity which allows an anthropologist or an ecologist to surrender to, to approach with "Taoistic receptivity," the system he is studying and hence to leave it unperturbed by his observation. The former pushed to the extreme becomes a caricature of objectivity. At a time when hypnosis was less scientifically respectable than presently it was used to urge that only a person who had never hypnotized nor been hypnotized was qualified to objectively study the phenomenon. A logical extension would lead to the conclusion that only a eunuch has the required objectivity to research sexual love.

Security needs of scientists, Maslow asserts, also lead to emphasis on abstract theoretical structures which are neat, tight, quantitative, systematic, at the expense of "empirical theories" which place emphasis on being "faithful to the nature of reality . . . , true as a description and organization of what exists" (p. 78), though this may require accepting "even contradictions and illogicalities and mysteries, the vague, the ambiguous, the archaic, the unconscious, and all other aspects of existence that are difficult to communicate" (p. 72). Another restricting prejudice is that for dissection and reductive analysis, which tends to obscure the equally essential understanding which comes from a holistic approach. Yet another consequence of the uncomfortability of uncertainty is the strong emphasis on predictability as a goal of science.

3. The methodology of science, too, is affected by the psychological characteristics of scientists. A methodology which has proven effective in the physical sciences tends to be moved over intact into the biological or social sciences where a sense of certainty may thus be bought at the cost of distorting the nature of the subject under study. "If the only tool you have is a hammer, it is tempting to treat everything as though it were a nail." Exaggerated enthusiasm for the technique of controlled experimentation, which sometimes leads to its being applied where it manifestly does not fit, has its roots in the personality structure of the scientist. "Interfering science is not synonymous with science itself. . . . There are other approaches to knowledge" (p. 95).

4. The characteristics and role of science as a social institution are affected

by the psychological attributes of scientists. Dr. Maslow hints that in the present age science may play to some extent the role of the Establishment, somewhat as the Church did four centuries ago—"a social institution with primarily defensive, conserving functions, ordering and stabilizing rather than discovering and renewing" (p. 33). This is particularly true in those areas of knowledge where advances (or at any rate, changes) most directly affect man's picture of himself and of his relation to the universe about him. "More than any other kind of knowledge we fear knowledge of ourselves, knowledge that might transform our self-esteem and our self-image" (p. 16). At one time the threat was felt from Copernican astronomy; somewhat later new findings of the geologists were bringing into question the accepted story of man's special Creation. Darwin's theory of natural selection was a threat in a similar direction. And today some of the incongruous data which challenges the "scientific world view" is in such areas as extrasensory perception, psychokinesis, anomalous rapid healing, mysticism, and the subjective experiences with the "consciousness-expanding" drugs. The nature of science at any particular point in history is determined by prior selections of what areas would be emphasized and studied, and what areas would be ignored. And this means that it is a function of the resistance, in the psychoanalytic sense, of the scientists.

5. Important value issues implicit in the carrying on of the scientific enterprise are strongly influenced by psychological factors. The nice, secure feeling obtained from convincing oneself that science is free from disturbing and uncertain value questions tends to becloud the matters of value which are ineluctably there.

"Science began originally as a determination to rely upon one's own eyes instead of on the ancients or upon ecclesiastical authority or pure logic. . . . Nobody then said anything about science being value-free. This was a later accretion" (p. 120). "The whole scientific process is shot through with selectiveness, choice, and preference . . . taste, judgment, and connoisseurship. . . . All these are value words (p. 123). And the good scientist is not the one who avoids value issues, but the one who makes choices well.

But beyond this, Dr. Maslow argues, science does ultimately have something to say about what is good and what is evil for a being with the human potentiality. It is not true, he claims, that this is an

improper realm for scientists to explore. Rather, because they find these explorations more difficult, but also because psychological insecurities have made them timid, they have been slow to do so. "The crucial question to be asked is: can science discover the values by which men should live? I think it can" (p. 124).

6. Finally, the author devotes attention to a particular aspect of the psychology of scientists, "the need to desacralize as a defense" . . . against being flooded by emotion, especially the emotions of humility, reverence, mystery, wonder, and awe" (p. 138). Again he provides one of those useful distinctions which make his work so thought-provoking. This one is between knowing, on the one hand as a relief from insecurity by reducing or obliterating the mystery of the unknown, and knowing on the other hand as an esthetic joy—either in the beauty of the system properties of an exquisite theory, or in the connoisseurship of intimate knowing, as for example the life habits of a particular animal species. For the healthy, self-actualizing scientist "there is no need to deny reality to experiences of transcendence or to regard such experiences as 'unscientific' or anti-intellectual . . . to deny their deeper feelings" (p. 144). "Science at its highest level is ultimately the organization of, the systematic pursuit of, and the enjoyment of wonder, awe, and mystery" (p. 151). In the "desacralization" of science it is prevented from making its maximum contribution to the growth of the individual and to the culture.

By no means will all of Dr. Maslow's



"Art is not entertainment. It is never easy. But it does somehow change the way you see. And if you can change the way you see, you can change the way you are."

—Morse Peckham
Man's Rage for Chaos

readers be pleased with or convinced by his arguments. Some will be stimulated; others offended. I suspect that few will be bored. For myself, I must conclude that this modest little book is one of the most significant written in modern times. For if Maslow is right, and if we become aware as he would have us become aware, a new kind of science is in the making. (Michael Polanyi's "Personal Knowledge" and Floyd Matson's "The Broken Image" bring similar messages.) This new emphasis will be on accepting "the obligation to acknowledge and describe all of reality" including, particularly, what we term subjective experience. F. W. H. Myers and William James will appear to be significant pioneers whose work in "far-out" areas of psychology seemed for two generations of scientists to be somewhat off the main track.

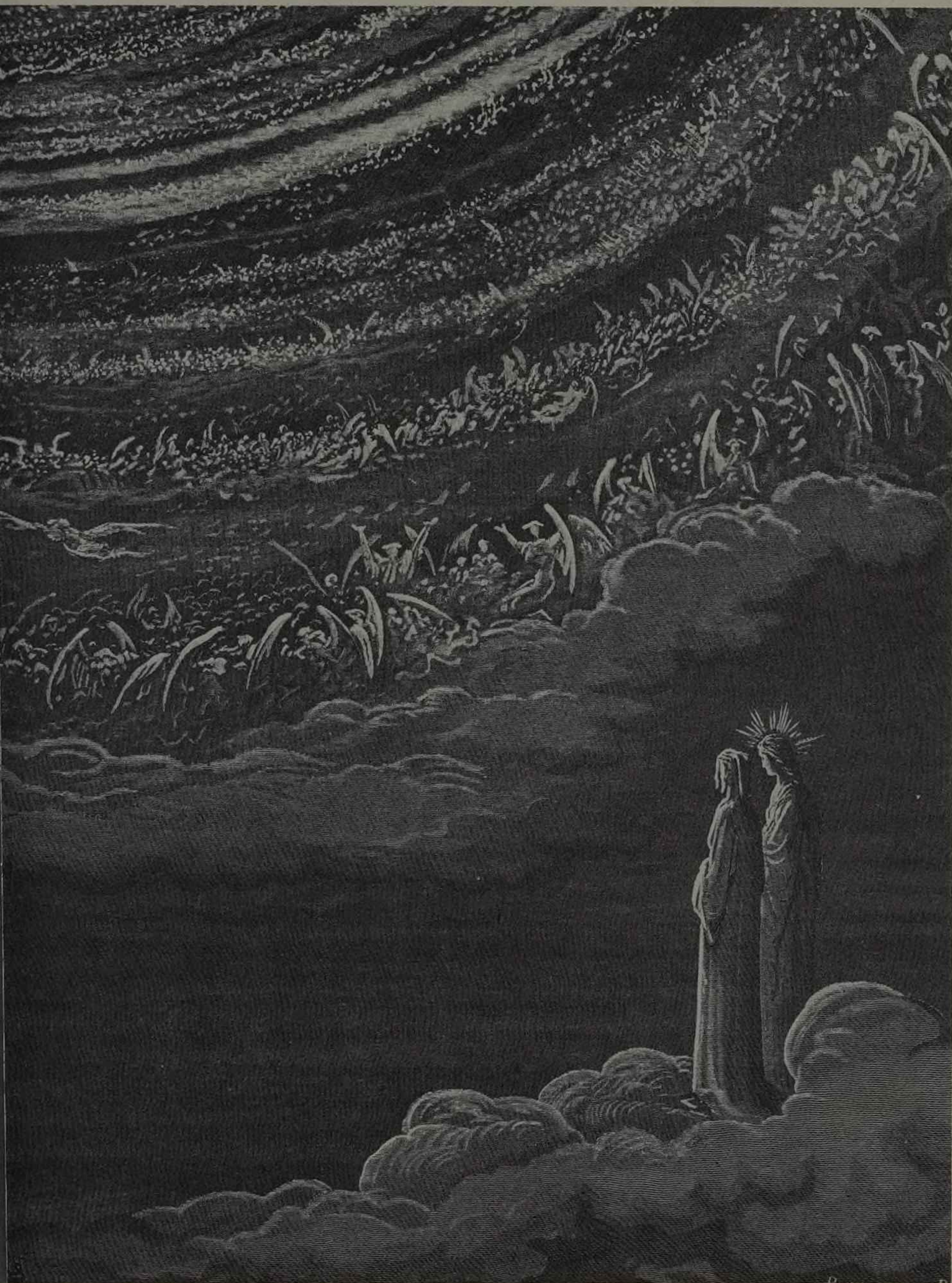
We can anticipate from the author's analysis what some characteristics of the new science, and particularly the new psychology, will be. In the first place, man the experienter will occupy a much more central position. The vast potentialities of inner experience will come in for systematic exploration, with particular attention to mapping or ordering of states of consciousness transcending the usual conscious awareness. What is good for man in terms of his own growth as a human individual will be the focal question. The new psychology will include a much more unified view of the processes of personal change and emergence which takes place within the contexts of psychotherapy, education (in the sense of self realization), and religion (as spiritual growth). It will allow for a much more unified view of human experiences now categorized under such diverse headings as hypnosis, creativity, parapsychology, psychedelic experiences, etc. It will deal holistically with man's vast unrealized potentialities for awareness of his true nature and his relationship to the universe about him, and for freedom to enter into an "I-thou" relationship with the universe and with his fellow-man.

Dr. Maslow may not be judged by his reader, nor by history to have been correct in all respects. But the issues he raises are key ones for our age, and that alone is sufficient to qualify the book as important. The challenge he puts to us is, in paraphrase of an ancient dictum, "Scientist, know thyself."

—Willis Harman

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Dore

I will show you a more excellent way.

If I speak in the tongues of men and of angels, but have not love, I am a noisy gong or a clanging cymbal. And if I have prophetic powers, and understand all mysteries and all knowledge, and if I have a!! faith, so as to remove mountains, but have not love, I am nothing. If I give away all I have, and if I deliver my body to be burned, but have not love, I gain nothing.

Love is longsuffering and kind; love is not jealous, or boastful or arrogant or rude. Love does not seek its own; it is not irritable or resentful; it does not rejoice in evil, but rejoices with the truth. Love bears all things, believes all things, hopes all things, endures all things. Love never ends. . . .

As for prophecies, they will pass away; as for tongues, they will cease; as for knowledge, it will pass away. For our knowledge is imperfect and our prophecy is imperfect; but when the perfect comes, the imperfect will pass away. When I was a child, I spoke like a child, I thought like a child, I reasoned like a child; when I became a man, I gave up childish ways. For now we see in a mirror dimly, but then face to face. Now I know in part; then I shall understand fully, even as I have been fully understood. So faith, hope, love abide, these three; but the greatest of these is love.

1 Corinthians 13

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