

The Religious Experience: Its Production and Interpretation *

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THREE YEARS AGO, on a sunny afternoon in the garden of a Cuernavaca villa, I ate seven of the so-called "sacred mushrooms" which had been given to me by a scientist from the University of Mexico. During the next five hours, I was whirled through an experience which could be described in many extravagant metaphors but which was above all and without question the deepest religious experience of my life.

Statements about personal reactions, however passionate, are always relative to the speaker's history and may have little general significance. Next come the questions "Why?" and "So what?"

There are many predisposing factors—intellectual, emotional, spiritual, social—which cause one person to be ready for a dramatic mind-opening experience and which lead another to shrink back from new levels of awareness. The discovery that the human brain possesses an infinity of potentialities and can operate at unexpected space-time dimensions left me feeling exhilarated, awed, and quite convinced that I had awakened from a long ontological sleep.

A profound transcendent experience should leave in its wake a changed man and a changed life. Since my illumination of August, 1960, I have devoted most of my energies to try to understand the revelatory potentialities of the human nervous system and to make these insights available to others.

I have repeated this biochemical and (to me) sacramental ritual over fifty times personally and, almost every time, I have been awed

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by religious revelations as shattering as the first experience. During this period I have been lucky enough to collaborate in this work with more than 50 scientists and scholars who joined our various research projects. We have arranged transcendent experiences for over one thousand persons from all walks of life, including 69 full-time religious professionals, about half of whom profess the Christian or Jewish faith and about half of whom belong to Eastern religions.

Included in this roster are two college deans, a divinity college president, three university chaplains, an executive of a religious foundation, a prominent religious editor, and several distinguished religious philosophers. In our research files and in certain denominational offices there is building up a large and quite remarkable collection of reports which will be published when the political atmosphere becomes more tolerant. At this point it is conservative to state that over 75 percent of these subjects report intense mystico-religious responses, and considerably more than half claim that they have had the deepest spiritual experience of their life.³

The interest generated by this research led to the formation of an informal group of ministers, theologians and religious psychologists who have been meeting once a month (summers excepted) for over two years, with an average of 20 persons in attendance. In addition to arranging for spiritually oriented psychedelic sessions and discussing prepared papers, this group provided the supervisory manpower for the dramatic "Good Friday" study, and was the original planning nucleus of the organization which assumed sponsorship of our research in consciousness-expansion: IF-IF (the International Federation for Internal Freedom). The generating impulse and the original leadership of IFIF came from a seminar in religious experience, and this fact may be related to the alarm which IFIF aroused in some secular and psychiatric circles.

THE "GOOD FRIDAY" STUDY, which has been sensationalized recently in the press as "The Miracle of Marsh Chapel", deserves further elaboration not only as an example of a serious, controlled experiment, involving over 30 courageous volunteers, but also as a systematic demonstration of the religious aspects of the psychedelic revelatory experience. This study was the Ph.D.-dissertation research of a graduate student in the philosophy of religion at Harvard University, who is, incidentally, both an M.D. and a Bachelor of Divinity. This investigator set out to determine whether the transcendent experience reported during psychedelic sessions was similar

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to the mystical experience reported by saints and famous religious mystics.

The subjects in this study were 20 divinity students selected from a group of volunteers. The subjects were divided into five groups of four persons, and each group met before the session for orientation and preparation. To each group were assigned two guides with considerable psychedelic experience. The ten guides were professors and advanced graduate students from Boston-area colleges.

The experiment took place in a small, private chapel, beginning about one hour before noon on Good Friday. The Dean of the Chapel, who was to conduct a three-hour devotional service upstairs in the main hall of the church, visited the subjects a few minutes before the start of the service at noon, and gave a brief inspirational talk.

Two of the subjects in each group and one of the two guides were given a moderately stiff dosage (i.e., 30 mg) of psilocybin, the chemical synthesis of the active ingredient in the "sacred mushroom" of Mexico. The remaining two subjects and the second guide received a placebo which produced noticeable somatic side effects, but which was not psychedelic. The study was triple-blind: neither the subjects, guides, nor experimenter knew who received psilocybin.

Because the dissertation describing this study has not yet been published,¹ any detailed discussion of the results would be premature and unfair to the investigator. I can say, however, that the results clearly support the hypothesis that, with adequate preparation and in an environment which is supportive and religiously meaningful, subjects report mystical experiences significantly more than placebo controls.

Our studies, naturalistic and experimental, thus demonstrate that if the expectation, preparation, and setting are spiritual, an intense mystical or revelatory experience can be expected in from 40 to 90 percent of subjects ingesting psychedelic drugs. These results may be attributed to the bias of our research group, which has taken the "far-out" and rather dangerous position that there are experiential-spiritual as well as secular-behavioral potentialities of the nervous system. While we share and follow the epistemology of scientific psychology (objective records), our basic ontological assumptions are closer to Jung than to Freud, closer to the mystics than to the theologians, closer to Einstein and Bohr than to Newton.

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In order to check on this bias, let us cast a comparative glance at the work of other research groups in this field who begin from more conventional ontological bases.

Oscar Janiger, a psychiatrist, and William McGlothlin, a psychologist, have reported the reactions of 194 psychedelic subjects. Seventy-three of these took LSD as part of a psychotherapy program, and 121 were volunteers. The religious "set" would not be expected to dominate the expectations of these subjects. The results, which are abstracted from a paper published in *The Psychedelic Review*,² are as follows:

ITEM	PERCENT Janiger-McGlothlin (non-religious setting) N = 194
Increased interest in morals, ethics . . . :	35
Increased interest in other universal concepts (meaning of life) :	48
Change in sense of values	48
LSD should be used for	
becoming aware of oneself :	75
getting new meaning to life :	58
getting people to understand each other :	42
An experience of lasting benefit :	58

Two other studies, one by Ditman *et al.*, another by Savage *et al.*, used the same questionnaire, allowing for inter-experiment comparison. Both Ditman and Savage are psychiatrists, but the clinical environment of the latter's study is definitely more religious (subjects are shown religious articles during the session, etc.). Summarizing the religious items of their questionnaires:

ITEM	Ditman (supportive environment) N = 74	PERCENT Savage (supportive environment & some religious stimuli) N = 96
Feel it [LSD] was the greatest thing that ever happened to me :	49	85
A religious experience . . . :	32	83
A greater awareness of God or a Higher Power, or an Ultimate Reality :	40	90

Here, then, we have five scientific studies by qualified investigators—the four naturalistic studies by Leary *et al.*,³ Savage *et al.*,⁴

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Ditman *et al.*,⁵ and Janiger-McGlothlin,⁶ and the triple-blind study in the Harvard dissertation mentioned earlier—yielding data which indicate that (1) if the setting is supportive but not spiritual, between 40 to 75 percent of psychedelic subjects will report intense and life-changing religious experiences; and that (2) if the set and setting are supportive and spiritual, then from 40 to 90 percent of the experiences will be revelatory and mystico-religious.

It is hard to see how these results can be disregarded by those who are concerned with spiritual growth and religious development. These data are even more interesting because the experiments took place during an historical era when mysticism, individual religious ecstasy (as opposed to religious religious behavior), was highly suspect, and when the classic, direct, non-verbal means of revelation and consciousness-expansion such as meditation, yoga, fasting, monastic withdrawal and sacramental foods and drugs were surrounded by an aura of fear, clandestine secrecy, active social sanction, and even imprisonment.⁷ The 69 professional workers in religious vocations who partook of psychedelic substances (noted earlier), were responsible, respected, thoughtful, and moral individuals who were grimly aware of the controversial nature of the procedure and aware that their reputations and their jobs might be undermined (and, as a matter of fact, have been and are today being threatened for some of them). *Still* the results read: 75% spiritual revelation. It may well be that the most intense religious experience, like the finest metal, requires fire, the heat of external bureaucratic opposition, to produce the keenest edge. When the day comes—as it surely will—that sacramental biochemicals like LSD will be as routinely and tamely used as organ music and incense to assist in the attainment of religious experience, it may well be that the ego-shattering effect of the drug will be diminished. Such may be one aspect of the paradoxical nature of religious experience.



THE RELIGIOUS EXPERIENCE. You are undoubtedly wondering about the meaning of this phrase which has been used so freely in the preceding paragraphs. May I offer a definition?

The religious experience is the ecstatic, incontrovertibly certain, subjective discovery of answers to four basic spiritual questions. There can be, of course, absolute subjective certainty in regard to secular questions: "Is this the girl I love? Is Fidel Castro a wicked man? Are the Yankees the best baseball team?" But issues which do not involve the four basic questions belong to secular games, and

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such convictions and faiths, however deeply held, can be distinguished from the religious. Liturgical practices, rituals, dogmas, theological speculations, can be and too often are secular, i.e., completely divorced from the spiritual experience.

What are these four basic spiritual questions? There is the Ultimate-Power question, the Life question, the Human-Destiny question, and the Ego question.

1. The Ultimate-Power Question:

What is the Ultimate Power or Basic Energy which moves the universe, creates life? What is the Cosmic Plan?

2. The Life Question:

What is life, where did it start, where is it going?

3. The Human-Destiny Question:

What is man, whence did he come, and where is he going?

4. The Ego Question:

What am I? What is my place in the plan?

While one may disagree with the wording, I think most thoughtful people—philosophers or not—can agree on something like this list of basic issues. Do not most of the great religious statements—Eastern or monotheistic—speak directly to these four questions?

Now one important fact about these questions is that they are continually being answered and re-answered, not only by all the religions of the world but also by the data of the natural sciences. Read these questions again from the standpoint of the goals of (1) astronomy-physics, (2) biochemistry, (3) genetics, paleontology, and evolutionary theory, (4) neurology.

We are all aware of the unhappy fact that both science and religion are too often diverted towards secular game goals. Various pressures demand that laboratory and church forget these basic questions and instead provide distractions, illusory protection, narcotic comfort. Most of us dread confrontation with the answers to these basic questions, whether these answers come from science or religion. But if "pure" science and religion address themselves to the same basic questions, what is the distinction between the two disciplines? Science is the systematic attempt to record and measure the energy process and the sequence of energy transformations we call life. The goal is to answer the basic questions in terms of objective, observed, public data. Religion is the systematic attempt to provide answers to the same questions subjectively, in terms of direct, incontrovertible, personal experience.

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Science is a social system which evolves roles, rules, rituals, values, language, space-time locations to further the quest for these goals—these answers. Religion is a social system which has evolved its roles, rules, rituals, values, language, space-time locations to further the pursuit of the same goals—the revelatory experience. A science which fails to address itself to these spiritual goals, which accepts other purposes (however popular), becomes secular, political, and tends to oppose new data. A religion which fails to provide direct experiential answers to these spiritual questions becomes secular, political, and tends to oppose the individual revelatory confrontation. R. C. Zaehner,⁸ whose formalism is not always matched by his tolerance, has remarked that “experience, when divorced from revelation, often leads to absurd and wholly irrational excesses.” Like any statement of polarity the opposite is equally true: revelation, when divorced from experience, often leads to absurd and wholly rational excesses. Those of us who have been researching the area of consciousness have been able to collect considerable sociological data about the tendency of the rational mind to spin out its own interpretations. But I shall have more to say about the political situation in a later section of this paper.



At this point I should like to present my main thesis. I am going to advance the hypothesis that *those aspects of the psychedelic experience which subjects report to be ineffable and ecstatically religious involve a direct awareness of the processes which physicists and biochemists and neurologists measure.*

We are treading here on very tricky ground. When we read the reports of LSD subjects, we are doubly limited. First, *they* can only speak in the vocabulary they know, and for the most part they do not possess the lexicon and training of energy scientists. Second, *we researchers* only find what we are prepared to look for, and too often we think in crude psychological-jargon concepts: moods, emotions, value judgments, diagnostic categories.

In recent months we have re-examined our data and have begun to interview subjects from the perspective of this present hypothesis. The results are interesting. To spell them out in brief detail I am going to review some of the current scientific answers to these four basic questions and then compare them with reports from psychedelic subjects.

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(1) The Ultimate-Power Question:

A. *The scientific answers* to this question change constantly—Newtonian laws, quantum indeterminacy, atomic structure, nuclear structure. Today the *basic energy* is located within the nucleus. Inside the atom,

a transparent sphere of emptiness, thinly populated with electrons, the substance of the atom has shrunk to a core of unbelievable smallness: enlarged 1000 million times, an atom would be about the size of a football, but its nucleus would still be hardly visible—a mere speck of dust at the center. Yet that nucleus radiates a powerful electric field which holds and controls the electrons around it.⁹

Incredible power and complexity operating at speeds and spatial dimensions which our conceptual minds cannot register. Infinitely small, yet pulsating outward through enormous networks of electrical forces—atom, molecule, cell, planet, star: all forms dancing to the nuclear tune.

The *cosmic design* is this network of energy whirling through space-time. More than 15,000 million years ago the oldest known stars began to form. Whirling disks of gas molecules (driven of course by that tiny, spinning, nuclear force)—condensing clouds—further condensations—the tangled web of spinning magnetic fields clustering into stellar forms, and each stellar cluster hooked up in a magnetic dance with its planetary cluster and with every other star in the galaxy and each galaxy whirling in synchronized relationship to the other galaxies.

One thousand million galaxies. From 100 million to 100,000 million stars in a galaxy—that is to say, 100,000 million planetary systems per galaxy and each planetary system slowly wheeling through the stellar cycle that allows for a brief time the possibility of life as we know it.

Five thousand million years ago, a slow-spinning dwarf star we call the sun is the center of a field of swirling planetary material. The planet earth is created. In five thousand million years the sun's supply of hydrogen will be burned up, the planets will be engulfed by a final solar explosion. Then the ashen remnants of our planetary system will spin silently through the dark infinity of space. And then is the dance over? Hardly. Our tiny solar light, which is one of one hundred thousand million suns in our galaxy, will scarcely be missed. And our galaxy is one of a thousand million galaxies spinning out and up at rates which exceed the speed of light—each

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galaxy eventually burning up, to be replaced by new galaxies to preserve the dance equilibrium.

Here in the always changing data of nuclear physics and astronomy is the current scientific answer to the first basic question—material enough indeed for an awesome cosmology.

B. *Psychedelic reports* often contain phrases which seem to describe similar phenomena, subjectively experienced.

- (a) I passed in and out of a state several times where I was so relaxed that I felt open to a total flow, over and around and through my body (more than my body) All objects were dripping, streaming, with white-hot light or electricity which flowed in the air. It was as though we were watching the world, just having come into being, cool off, its substance and form still molten and barely beginning to harden.
- (b) Body being destroyed after it became so heavy as to be unbearable. Mind wandering, ambulating throughout an ecstatically-lit indescribable landscape. How can there be so much light—layers and layers of light, light upon light, all is illumination.
- (c) I became more and more conscious of vibrations—of the vibrations in my body, the harp-strings giving forth their individual tones. Gradually I felt myself becoming one with the Cosmic Vibration. . . . In this dimension there were no forms, no deities or personalities—just bliss.
- (d) The dominant impression was that of entering into the very marrow of existence It was as if each of the billion atoms of experience which under normal circumstances are summarized and averaged into crude, indiscriminate wholesale impressions was now being seen and savored for itself. The other clear sense was that of cosmic relativity. Perhaps all experience never gets summarized in any inclusive overview. Perhaps all there is, is this everlasting congeries of an infinite number of discrete points of view, each summarizing the whole from its perspective.
- (e) I could see the whole history and evolution along which man has come. I was moving into the future and saw the old cycle of peace and war, good times and bad times, starting to repeat, and I said, "The same old thing again, oh God! It has changed though, it is different," and I thought of the rise of man from animal to spiritual being. But I was still moving into the future and I saw the whole planet destroyed and all history, evolution, and human efforts being wiped out in this one ultimate destructive act of God.

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Subjects speak of participating in and merging with pure (i.e., content-free) energy, white light; of witnessing the breakdown of macroscopic objects into vibratory patterns, visual nets, the collapse of external structure into wave patterns, the awareness that everything is a dance of particles, sensing the smallness and fragility of our system, visions of the void, of world-ending explosions, of the cyclical nature of creation and dissolution, etc. Now I need not apologize for the flimsy inadequacy of these words. We just don't have a better experiential vocabulary. If God were to permit you a brief voyage into the Divine Process, let you whirl for a second into the atomic nucleus or spin you out on a light-year trip through the galaxies, how on earth would you describe what you saw, when you got back, breathless, to your office? This metaphor may sound far-fetched and irrelevant, but just ask someone who has taken LSD in a supportive setting.

(2) The Life Question:

A. *The Scientific Answer:*

Our planetary system began over five billion years ago and has around five billion years to go. Life as we know it dates back to about one billion years. In other words, the earth spun for about 80 percent of its existence without life. The crust slowly cooled and was eroded by incessant water flow. "Fertile mineral mud was deposited . . . now giving . . . for the first time . . . the possibility of harboring life." Thunderbolts in the mud produce amino acids, the basic building blocks of life. Then begins the ceaseless production of protein molecules, incalculable in number, forever combining into new forms. The variety of proteins "exceeds all the drops of water in all the oceans of the world." Then protoplasm. Cell. Within the cell, incredible beauty and order.

When we consider the teeming activity of a modern city it is difficult to realize that in the cells of our bodies infinitely more complicated processes are at work—ceaseless manufacture, acquisition of food, storage, communication and administration All this takes place in superb harmony, with the cooperation of all the participants of a living system, regulated down to the smallest detail.⁹

Life is the striving cycle of repetitious, reproductive energy transformations. Moving, twisting, devouring, changing, the unit of life is the cell. And the blueprint is the genetic code, the two nucleic

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acids—the long, intertwined, duplicating chains of DNA and the controlling regulation of RNA—“which determine the structure of the living substance.”

And where is it going? Exactly like the old Hindu myths of cyclical rotation, the astrophysicists tell us that life is a temporary sequence which occurs at a brief midpoint in the planetary cycle. Terrestrial life began around four billion years A.B. (“after the beginning” of our solar cycle) and will run for another two billion years or so. At that time the solar furnace will burn so hot that the minor planets (including Earth) will boil, bubble and burn out. In other planetary systems the time spans are different, but the cycle is probably the same.

There comes an intermediate stage in the temperature history of a planet which can nourish living forms, and then life merges into the final unifying fire. Data here, indeed, for an awesome cosmology.

B. *The psychedelic correlates* of these biological concepts sound like this: confrontation with and participation in cellular flow; visions of microscopic processes; strange, undulating, multi-colored, tissue patterns; being a one-celled organism floating down arterial waterways; being part of the fantastic artistry of internal factories; recoiling with fear at the incessant push, struggle, drive of the biological machinery, clicking, clicking, endlessly, endlessly—at every moment engulfing you. For example:

- (a) My eyes closed, the impressions became more intense. The colors were brilliant blues, purples, and greens with dashes of red and streaks of yellow-orange. There were no easily identifiable objects, only convolutions, prisms, and continuous movement.
- (b) My heart a lizard twitching lithely in my pocket, awaiting the wave again, my flesh sweating as it crawled over my bones, the mountains curved around my heart, the surf crashing against my mucoused lungs, coughing into heart beats, pulsing death to scare me. Futile body. Awaiting the undertow escaping under the wave which crashed so coughingly over my heart, blue lighted into YES. An undertow going UP The universe has an axis which is not perpendicular, and round it flock the living colors, pulsing eternal involutions.
- (c) I then gradually became aware of movement, a rocking type of movement, like on a roller-coaster, yet I did not move my body at all With an overwhelming acceleration I was turning around and around, swirling, then shuttling back and forth, like a piece of potassium on water, hissing, sparkling, full of life and fire.

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(3) The Human-Destiny Question:

A. *The Scientific Answer:*

The flame of life which moves every living form, including the cell cluster you call *yourself*, began, we are told, as a tiny single-celled spark in the lower pre-Cambrian mud; then passed over in steady transformations to more complex forms. We like to speak of higher forms, but let's not ignore or patronize the single-cell game. It's still quite thriving, thank you. Next, your ancestral fire glowed in seaweed, algae, flagellate, sponge, coral (about one billion years ago); then fish, fern, scorpion, milliped (about 600 million years ago). Every cell in your body traces back (about 450 million years ago) to the same light-life flickering in amphibian (and what a fateful and questionable decision to leave the sea—should we have done it?). Then forms, multiplying in endless diversity—reptile, insect, bird—until, one million years ago, comes the aureole glory of *Australopithecus*.*

The torch of life next passes on to the hand-axe culture (around 600,000 years ago) to *Pithecanthropus* (can you remember watching for the charge of Southern elephants and the sabre-tooth tiger?); then blazing brightly in the radiance of our great-grandfather Neanderthal man (a mere 70,000 years ago), suddenly flaring up in that cerebral explosion that doubled the cortex of our grandfather Cromagnon man (44,000 to 10,000 years ago), and then radiating into the full flame of recent man, our older Stone Age, Neolithic brothers, our Bronze and Iron Age selves.

What next? The race, far from being culminated, has just begun:

The development of Pre-hominines *Australopithecus* . . . to the first emergence of the . . . Cromagnons lasted about . . . fifteen thousand human life-spans In this relatively short period in world history the hominid type submitted to a positively hurricane change of form; indeed he may be looked upon as one of the animal groups whose potentialities of unfolding with the greatest intensity have been realized. It must, however, by no means be expected that this natural flood of development will dry up with *Homo sapiens recens*. Man will be unable to remain man as we know him now, a modern sapiens type. He will in the courses of the next hundreds of millennia presumably change considerably physiologically and physically.¹⁰

*The fossils of the newly discovered “*Homo Habilis*” from East Africa are estimated to be 1,750,000 years old. (*N. Y. Times*, March 18, April 3 & 4, 1964. Another estimate traces human origins back about 15 million years!—*N. Y. Times*, April 12, 1964.)

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B. *The Psychedelic Correlate:*

What does all that evolutionary business have to do with you or me or LSD or the religious experience? It might, it just might, have a lot to do with very current events. Many, and I am just bold enough to say most, LSD subjects say they experience early forms of racial or sub-human species evolution during their sessions. Now the easiest interpretation is the psychiatric: "Oh yes, hallucinations. Everyone knows that LSD makes you crazy, and your delusions can take any psychotic form." But wait; not so fast. Is it entirely inconceivable that our cortical cells, or the machinery inside the cellular nucleus, "remembers" back along the unbroken chain of electrical transformations that connects every one of us back to that original thunderbolt in the pre-Cambrian mud? Impossible, you say? Read a genetics text. Read and reflect about the DNA chain of complex protein molecules that took you as a uni-celled organism at the moment of your conception and planned every stage of your natural development. Half of that genetic blueprint was handed to you intact by your mother, and half from your father, and then slammed together in that incredible welding process we call conception.

"You", your ego, your good-old American-social-self, have been trained to remember certain crucial secular game landmarks: your senior prom, your wedding day. But is it not possible that others of your ten billion brain cells "remember" other critical survival crossroads like conception, intra-uterine events, birth? Events for which our language has few or no descriptive terms? Every cell in your body is the current-carrier of an energy torch which traces back through millions of generation-transformations. Remember that genetic code?

You must recognize by now the difficulty of my task. I am trying to expand your consciousness, break through your macroscopic, secular set, "turn you on", give you a faint feeling of a psychedelic moment, trying to relate two sets of processes for which we have no words—speed-of-light energy-transformation processes and the transcendent vision.

I'm going to call for help. I could appeal to quotes from Gamow the cosmologist, or Eiseley the anthropologist, or Hoyle the astronomer, or Teilhard du Chardin the theological biologist, or Aldous Huxley the great visionary prophet of our times, or Julian Huxley whose pharmacological predictions sound like science-fiction. I could call upon a hundred articulate scientists who talk in dazed poetry about the spiritual implications of their work. Instead, I am

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going to read a passage by the German anthropologist Egon Freiherr von Eickstedt. The topic is the spiritual attitude of Australopithecus. The point is that this description of the world-view of a tiny monkey-man who lived a million years ago could be a quote from any one of a hundred LSD reports I've read in the last three years. Von Eickstedt's research leads him to say that,

In the way of experience there is dominant, throughout, a kaleidoscopic interrelated world. Feeling and perception are hardly separated in the world of visions; space and time are just floating environmental qualities . . . Thus the border between I and not-I is only at the border of one's own and actually experienced, perceptible world . . . But this by no means denotes merely bestial brutality and coarseness which is so erroneously and often ascribed to the beginnings of humanity. Quite the reverse. The thymality within his own circle means just the opposite, tenderness, goodness and cheerfulness, and allows with complete justification the presumption of a picture of intimate family life and the specific teaching of the children, also need of ornament, dance and much happiness. Thus the extremes of feeling swing with the mood between fear and love, and the dread of the unknowable . . .¹¹

We have in our files an LSD report from a world-renowned theologian with astonishing parallels to this quotation.

The best way I can describe the experience as a whole is to liken it to an emotional-reflective-visual kaleidoscope Experiences involving these three components kept dissolving continuously from one pattern into another. Emotionally the patterns ranged from serene contentment and mild euphoria to apprehension which boarded on, but never quite slipped into, alarm. But overwhelmingly they involved (a) astonishment at the absolutely incredible immensity, complexity, intensity and extravagance of being, existence, the cosmos, call it what you will. Ontological shock, I suppose. (b) The most acute sense of the poignancy, fragility, preciousness, and significance of all life and history. The latter was accompanied by a powerful sense of the responsibility of all for all Intense affection for my family Importance and rightness of behaving decently and responsibly.

(4) *The Ego Question:*

A. The Scientific Answer:

The question "Who am I?" can be answered at many levels. Psychologists can describe and explain your psychogenesis and personal evolution. Sociologists and anthropologists can explain the structure of the tribal games which govern your development. Biologists can describe your unique physical structure. But the essence of you and "you-ness" is your consciousness. You are not a psych-

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ological or social or bodily robot. No external description comes close. What cannot be measured, replaced, understood by any objective method is your consciousness. And where is this located? In your nervous system. The secular-game engineers can entertain you with their analyses of your macroscopic characteristics, but the biochemical neurologist is the man to listen to. He is the person who can locate "you" in the five-billion-year sequence by describing the capacities of your cortex. Your consciousness is a biochemical electrical process.

The human brain, we are told,

is composed of about 10 billion nerve cells, any one of which may connect with as many as 25,000 other nerve cells. The number of interconnections which this adds up to would stagger even an astronomer—and astronomers are used to dealing with astronomical numbers. The number is far greater than all the atoms in the universe . . . This is why physiologists remain unimpressed with computers. A computer sophisticated enough to handle this number of interconnections would have to be big enough to cover the earth.¹²

Into this matrix floods "about 100 million sensations a second from . . . [the] various senses." And somewhere in that ten-billion-cell galaxy is a tiny solar system of connected neurons which is aware of your social self. Your "ego" is to your cortex what the planet Earth is to our galaxy with its 100,000 million suns.

B. *The psychedelic answer* to the "I" question is the crux of the LSD experience. Most of the affect swirls around this issue. As Erik Erikson reminds us, it's hard enough to settle on a simple tribal role definition of "Who am I?" Imagine the dilemma of the LSD subject whose cortex is suddenly turned on to a much higher voltage, who suddenly discovers his brain spinning at the speed of light, flooded by those 100 million sensations a second. Most of the awe and reverent wonder stems from this confrontation with an unsuspected range of consciousness, the tremendous acceleration of images, the shattering insight into the narrowness of the learned as opposed to the potentiality of awareness, the humbling sense of where one's ego is in relationship to the total energy field.

- (a) I was delighted to see that my skin was dissolving in tiny particles and floating away. I felt as though my outer shell was disintegrating, and the 'essence' of me was being liberated to join the 'essence' of everything else about me.
- (b) Two related feelings were present. One was a tremendous freedom to experience, to be I. It became very important to distinguish between

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'I' and 'Me', the latter being an object defined by patterns and structures and responsibilities—all of which had vanished—and the former being the subject experiencing and feeling. My normal life seemed to be all Me, all demands and responsibilities, a crushing burden which destroyed the pleasure and freedom of being 'I'. Later in the evening the question of how to fit back into my normal life without becoming a slave of its patterns and demands became paramount. The other related feeling was one of isolation. The struggle to preserve my identity went on in loneliness; the 'I' cannot be shared or buttressed. The 'Me', structured as it is, can be shared, and is in fact what we mean when we talk about "myself", but once it is thus objectified it is no longer I, it has become the known rather than the knower. And LSD seemed to strip away the structure and to leave the knowing process naked—hence the enormous sense of isolation: there was no Me to be communicated.

- c) All this time, for about 2-3 hours, although there was thinking, talking going on, my mind was being used, yet there was no ego . . . I could with total dispassion examine various relationships that 'I' had with parents, friends, parts of 'myself', etc. People who walked into the room were accepted with the same serene equanimity that I felt about accepting my own mental products; they were really walking around in my mind.
- d) I was entering into another dimension of existence. 'I' was not. Everything was totally dissolved into a flow of matter continuously moving. No time, no space. A feeling of color, but indescribable. Feeling of movement mainly. Awareness that I, the others, are only collections of clusters of molecules, which are all part of the same stream.

For the small percentage of unprepared subjects who take LSD in careless or manipulative settings and experience terror and paranoid panic, their misery invariably centers around the struggle to reimpose ego control on the whirling energy flow in them and around them. Theirs is the exhausting and sad task of attempting to slow down and limit the electrical pulse of the ten-billion-cell cerebral computer. Thorazine, alcohol and narcotics help apply the brakes. So, I fear, do words.



WHEN WE READ about the current findings of the energy sciences such as those I have just reviewed, how can our reaction be other than reverent awe at the grandeur of these observations, at the staggering complexity of the design, the speed, the scope? Ecstatic humility before such Power and Intelligence. Indeed, what a small, secular concept—intelligence—to describe that Infinitude of

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Harmonious Complexity! How impoverished our vocabulary and how narrow our imagination!

Of course, the findings of the pure sciences *do not* produce the religious reaction we should expect. We are satiated with secular statistics, dazed into robot dullness by the enormity of facts which we are not educated to comprehend. Although the findings of physics, genetics, paleontology and neurology have tremendous relevance to our life, they are of less interest than a fall in the stock market or the status of the pennant race.

The message is dimly grasped hypothetically, rationally, but never experienced, felt, known. But there can be that staggering, intellectual-game ecstasy which comes when you begin to sense the complexity of the Plan. To pull back the veil and see for a second a fragment of the energy dance, the life power. How can you appreciate the Divine unless you comprehend the smallest part of the fantastic design? To experience (it's always for a moment) the answers to the four basic spiritual questions is to me the peak of the religious-scientific quest.

But how can our ill-prepared nervous systems grasp the message? Certainly the average man cannot master the conceptual, mathematical bead game of the physics graduate student. Must his experiential contact with the Divine Process come in watered-down symbols, sermons, hymns, robot rituals, religious calendar art, moral-behavior sanctions eventually secular in their aim? Fortunately the Great Plan has produced a happy answer and has endowed every human being with the equipment to comprehend, to know, to experience directly, incontrovertibly. It's there in that network of ten billion cells, the number of whose interconnections "is far greater than all the atoms in the universe."

If you can, for the moment, throw off the grip of your learned mind, your tribal concepts, and experience the message contained in the ten-billion-tube computer which you carry behind your forehead, you would know the awe-full truth. Our research suggests that even the uneducated layman can experience directly what is slowly deduced by scientists—for example physicists, whose heavy, conceptual minds lumber along at three concepts a second, attempting to fathom the speed-of-light processes which their beautiful machines record and which their beautiful symbols portray.

But the brakes can be released. Our recent studies support the hypothesis that psychedelic foods and drugs, ingested by prepared subjects in a serious, sacred, supportive atmosphere, can put the

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subject in perceptual touch with other levels of energy exchanges. Remember the data—the Good Friday study, the Savage study, the 69 religious professionals. Forty to ninety percent telling us they experienced "a greater awareness of God, or a Higher Power, or an Ultimate Reality."

But to what do these LSD subjects refer when they report spiritual reactions? Do they obtain specific illuminations into the four basic questions, or are their responses simply awe and wonder at the experienced novelty? Even if the latter were the cause, could it not support the religious application of the psychedelic substances and simply underline the need for more sophisticated religious language coordinated with the scientific data? But there is some evidence, phenomenological but yet haunting, that the spiritual insights accompanying the psychedelic experience might be subjective accounts of the objective findings of astronomy, physics, biochemistry, and neurology.

Now the neurological and pharmacological explanations of an LSD vision are still far from being understood. We know almost nothing about the physiology of consciousness and the body-cortex interaction. We cannot assert that LSD subjects are directly experiencing what particle physicists and biochemists measure, but the evidence about the detailed complexity of the genetic code and the astonishing design of intra-cellular communication should caution us against labeling experiences outside of our current tribal clichés as "psychotic" or abnormal. For three thousand years our greatest prophets and philosophers have been telling us to look within, and today our scientific data are supporting that advice with a humiliating finality. The limits of introspective awareness may well be sub-microscopic, cellular, molecular and even nuclear. We only see, after all, what we are trained and predisposed to see. One of our current research projects involves teaching subjects to recognize internal physical processes much as we train a beginning biology student to recognize events viewed through his microscope.

No matter how parsimonious our explanations, we must accept the fact that LSD subjects do claim to experience revelations into the basic questions and do attribute life-change to their visions.

We are, of course, at the very beginning of our research into these implications. A new experiential language and perhaps even new metaphors for the Great Plan will develop. We have been working on this project for the past two years, writing manuals which train subjects to recognize energy processes, teaching subjects

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to communicate via a machine we call the experiential typewriter, and with movies of microbiological processes. And we have continued to pose the question to religious and philosophic groups as I am doing tonight. What do you think? Are these biochemical visions religious?

Before you answer, remember that God (however you define the Higher Power) produced that wonderful molecule, that extraordinarily powerful organic substance we call LSD, just as surely as "He" created the rose, or the sun, or the complex cluster of molecules you insist on calling your "self".

Among the many harassing complications of our research into religious experience has been the fact that few people, even some theological professionals, have much conception of what a religious experience really is. Few have any idea how the Divine Process presents Itself. If asked, they tend to become embarrassed, intellectual, evasive. The adored cartoonists of the Renaissance portray the Ultimate Power as a Dove, or a Flaming Bush, or as a man—venerable, with a white beard, or on a Cross, or as a Baby, or a Sage seated in the Full Lotus Position. Are these not incarnations, temporary housings, of the Great Energy Process?

Last fall a minister and his wife, as part of a courageous and dedicated pursuit of illumination, took a psychedelic biochemical called dimethyltryptamine. This wondrous alkaloid (which closely approximates serotonin, the natural "lubricant" of our higher nervous system) produces the most intense psychedelic effect of any sacramental food or drug. In 25 minutes (about the duration of the average sermon), you are whirled through the energy dance, the cosmic process, at the highest psychedelic speed. The 25 minutes are sensed as lasting for a second and for a billion-year Kalpa. After the session, the minister complained that the experience, although shattering and revelatory, was disappointing because it was "content-free"—so physical, so unfamiliar, so scientific, like being beamed through microscopic panoramas, like being oscillated through cellular functions at radar acceleration. Well, what do you expect? If God were to take you on a visit through His "workshop", do you think you'd walk or go by bus? Do you really think it would be a stroll through a celestial Madame Tussaud waxworks? Dear friends, the *Divine Product* is evident in every macroscopic form, in every secular event. The Divine Product we can see. But the *Divine Process* operates in time dimensions which are far beyond our routine, secular, space-time limits. Wave vibrations, energy dance, cellular

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transactions. Our science describes this logically. Our brains may be capable of dealing with these processes experientially.

So here we are. The Great Process has placed in our hands a key to this direct visionary world. Is it hard for us to accept that the key might be an organic molecule and not a new myth or a new word?



And where do we go? There are in the United States today several hundred thousand persons who have experienced what I have attempted to describe to you tonight—a psychedelic, religious revelation. There are, I would estimate, several million equally thoughtful people who have heard the joyous tidings and who are waiting patiently but determinedly for their psychedelic moment to come.

There is, of course, the expected opposition. The classic conflict of the religious drama—always changing, always the same. The doctrine (which was originally someone's experience) now threatened by the *new* experience. This time the administrators have assigned the inquisitorial role to the psychiatrists, whose proprietary claims to a revealed understanding of the mind and whose antagonism to consciousness-expansion are well known to you.

The clamor over psychedelic drugs is now reaching full crescendo. You have heard rumors and you have read the press assaults and the slick-magazine attacks-by-innuendo. As sophisticated adults you have perhaps begun to wonder: why the hysterical outcry? As scientists you are beginning to ask: where is the evidence? As educated men with an eye for history, you are, I trust, beginning to suspect that we've been through this many times before.

In the current hassle over psychedelic plants and drugs, you are witnessing a good-old-fashioned, traditional, religious controversy. On the one side the psychedelic visionaries, somewhat uncertain about the validity of their revelations, embarrassedly speaking in new tongues (there never is, you know, the satisfaction of a sound, right academic language for the new vision of the Divine), harassed by the knowledge of their own human frailty, surrounded by the inevitable legion of eccentric would-be followers looking for a new panacea, always in grave doubt about their own motivation—(hero? martyr? crank? crackpot?)—always on the verge of losing their material achievements—(job, reputation, long-suffering wife, conventional friends, parental approval); always under the fire of the power-holders. And on the other side: the establishment (the administrators, the police, the fund-granting foundations, the job-

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givers) pronouncing their familiar lines in the drama: "Danger! Madness! Unsound! Intellectual corruption of youth! Irreparable damage! Cultism!" The issue of chemical expansion of consciousness is hard upon us. During the next months, every avenue of propaganda is going to barrage you with the arguments. You can hardly escape it. You are going to be pressed for a position. Internal Freedom is becoming a major religious and civil-rights controversy.

How can you decide? How can you judge? Well, it's really quite simple. Whenever you hear anyone sounding off on internal freedom and consciousness-expanding foods and drugs—whether pro or con—check out these questions:

(1) Is your advisor talking from direct experience, or simply repeating clichés? Theologians and intellectuals often deprecate "experience" in favor of fact and concept. This classic debate is falsely labeled. Most often it becomes a case of "experience" versus "inexperience".

(2) Do his words spring from a spiritual or from a mundane point of view? Is he motivated by a dedicated quest for answers to basic questions, or is he protecting his own social-psychological position, his own game investment?

(3) How would his argument sound if it were heard in a different culture (for example, in an African jungle hut, a ghat on the Ganges, or on another planet inhabited by a form of life superior to ours); or in a different time (for example in Periclean Athens, or in a Tibetan monastery, or in a bull-session led by any one of the great religious leaders—founders—messiahs); or how would it sound to other species of life on our planet today—to the dolphins, to the consciousness of a redwood tree? In other words, try to break out of your usual tribal game-set and listen with the ears of another one of God's creatures.

(4) How would the debate sound to you if you were fatally diseased with a week to live, and thus less committed to mundane issues? Our research group receives many requests a week for consciousness-expanding experiences, and some of these come from terminal patients.¹³

(5) Is the point of view one which opens up or closes down? Are you being urged to explore, experience, gamble out of spiritual faith, join someone who shares your cosmic ignorance on a collaborative voyage of discovery? Or are you being pressured to close off, protect your gains, play it safe, accept the authoritative voice of someone who knows best?

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(6) When we speak, we say little about the subject-matter and disclose mainly the state of our own mind. Does your psychedelic advisor use terms which are positive, pro-life, spiritual, inspiring, opening, based on faith in the future, faith in your potential, or does he betray a mind obsessed by danger, material concern, by imaginary terrors, administrative caution or essential distrust in your potential. Dear friends, there is nothing in life to fear, no spiritual game can be lost. The choice is not double-bind but double-win.¹⁴

(7) If he is against what he calls "artificial methods of illumination", ask him what constitutes the natural. Words? Rituals? Tribal customs? Alkaloids? Psychedelic vegetables?

(8) If he is against biochemical assistance, where does he draw the line? Does he use nicotine? alcohol? penicillin? vitamins? conventional sacramental substances?

(9) If your advisor is against LSD, what is he for? If he forbids you the psychedelic key to revelation, what does he offer you instead?



SUMMARY

The outline of this paper can be summarized as follows:

(1) Evidence is cited that, depending on the set and setting, from 40 to 90 percent of psychedelic subjects report intense religious experiences.

(2) The religious experience was defined as the ecstatic, incontrovertibly certain, subjective discovery of answers to four basic questions which concern ultimate power and design, life, man and self. It was pointed out that science attempts to provide objective, external answers to these same questions.

(3) We considered the hypothesis that the human being might be able to become directly aware of energy exchanges and biological processes for which we now have no language and no perceptual training. Psychedelic foods and drugs were suggested as one key to these neurological potentials, and subjective reports from LSD sessions were compared with current findings from the energy sciences.

(4) The current controversy over the politics of the nervous system (which involves secular-external versus spiritual-internal commitments) were reviewed, and a checklist for the intelligent voter was presented.

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POEM

(from the Maximus Poems)

a century or so before 2000

BC | the year rebegan in

March | festival days

of wild untamed undomesticated hence wild
 savage feral (Father's
 Days our father who is also in
 Tartaros chained in being
 kept watch on by Aegean-
 O'Briareos whose exceeding
 manhood (excellent manhood
 comeliness
 and power - 100 or possibly
 to us the term of change (with
 the reciprocal 1/137 one of the two
 pure numbers out of which the world
 is constructed

(the other one is
 'Earth' mass mother milk cow body
 demonstrably, suddenly, more
 primitive and universal (? Hardly

The problem here is a non-statistical
 proof: Earth 'came into being'
 extraordinarily early, #2
 in fact directly following on
 appetite. Or
 as it reads in Norse
 hunger, as though in the mouth
 (which is an occurrence, is 'there',
stiocus)