

Programmed Communication During Experiences With DMT

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During the first two years of the Harvard Psychedelic Research Project rumors circulated about a "powerful" psychedelic agent called dimethyltryptamine: DMT. The effect of this substance was supposed to last for less than an hour and to produce shattering, terrorizing effects. It was alleged to be the nuclear bomb of the psychedelic family.

The Hungarian pharmacologist, Stephen Szara, first reported in 1957 that N,N-Dimethyltryptamine (DMT) and N,N-Diethyltryptamine (DET) produced effects in man similar to LSD and mescaline. The only difference was in duration: whereas LSD and mescaline typically last 8 to 10 hours, DMT lasted from 40 minutes to 1 hour and DET from 2 to 3 hours. The higher homologues, dipropyltryptamine and dibutyltryptamine, were also said to be active but less potent. The parent substance, tryptamine, by itself has no effect. Chemically, DMT is closely related to psilocybin and psilocin (4-hydroxy-N-dimethyltryptamine), as well as to bufotenine (5-hydroxy-N-dimethyltryptamine). The mechanism of action of DMT and related compounds is still a scientific mystery. Like LSD and psilocybin, DMT has the property of increasing the metabolic turnover of serotonin in the body. An enzyme capable of converting naturally-occurring tryptamine to DMT has recently been found in some mammalian tissue; this suggests that mechanisms may exist whereby the body converts normally-occurring substances to psychedelic compounds. (1,2,3,4,5)

DMT has been identified as one of the ingredients in the seeds of *Mimosa hostilis*, from which the Pancaru Indians of Pernambuco, Brazil, prepare an hallucinogenic beverage they call *vinho de Jurumena*. It is also, along with bufotenine, one of the ingredients in the seeds of *Piptadenia peregrina*, from which the Indians of the Orinoco Basin and of Trinidad prepare an hallucinogenic snuff they call *yopo*. (6)

William Burroughs had tried it in London and reported it in the most negative terms. Burroughs was working at that time on a theory of neurological geography -- certain cortical areas were heavenly, other areas were diabolical. Like explorers moving into a new continent, it was important to map out the friendly areas and the hostile. In Burroughs' pharmacological cartography, DMT propelled the voyager into strange and decidedly unfriendly territory.

Burroughs told a gripping tale about a psychiatrist in London who had taken DMT with a friend. After a few minutes the frightened friend began requesting help. The psychiatrist, himself being spun through a universe of shuttling, vibratory pigments, reached for his hypodermic needle (which had been fragmented into a shimmering assemblage of wave mosaics) and bent over to administer an antidote. Much to his dismay his friend, twisting in panic, was suddenly transformed into a writhing,

wiggling reptile, jewel-encrusted and sparkling. The doctor's dilemma: where to make an intravenous injection in a squirming, oriental-martian snake?

Alan Watts had a DMT story to tell. He took the drug as part of a California research and had planned to demonstrate that he could maintain rational control and verbal fluency during the experience. The closest equivalent might be to attempt a moment-to-moment description of one's reactions while being fired out the muzzle of an atomic cannon with neon-byzantine barreling. Dr. Watts gave an awe-full description of perceptual fusion.

In the fall of 1962, while giving a three-day series of lectures to the Southern California Society of Clinical Psychologists, I fell into discussion with a psychiatrist who was collecting data on DMT. He had given the drug to over a hundred subjects and only four had reported pleasant experiences. This was a challenge to the set-setting hypothesis. According to our evidence, and in line with our theory, we had found little differentiation among psychedelic drugs. We were skeptically convinced that the elaborate clinical differences allegedly found in reactions to different drugs were psychedelic folk tales. We were sticking to our null hypothesis that the drugs had no specific effect on consciousness but that expectation, preparation, emotional climate, and the contract with the drug-giver accounted for all differences in reaction.

We were eager to see if the fabled "terror-drug," DMT, would fit the set-setting theory.

A session was arranged. I came to the home of the researcher, accompanied by a psychologist, a Vedanta monk and two female friends. After a lengthy and frinedly discussion with the physician, the psychologist lay down on a couch. His friend's head rested on his chest. I sat on the edge of the couch, smiling in reassuring expectation. Sixty mg. of DMT were administered intramuscularly.

Within two minutes the psychologist's face was glowing with serene joy. For the next twenty-five minutes he gasped and murmured in pleasure, keeping up an amused and ecstatic account of his visions.

"The faces in the room had become billion-faceted mosaics of rich and vibrant hues. The facial characteristics of each of the observers, surrounding the bed, were the keys to their genetic heritage. Dr. X (the psychiatrist) was a bronzed American Indian with full ceremonial paint; the Hindu monk was a deep soulful middle-easterner with eyes which were at once reflecting animal cunning and the sadness of centuries; Leary was a roguish Irishman, a sea captain with weathered skin and creases at the corners of eyes which had looked long and hard into the unsee-able, an adventurous skipper of a three-masted schooner eager to chart new waters, to explore the continent just beyond, exuding a confidence that comes from a humorous cosmic awareness of his predicament -- genetic and immediate. And next to me, or rather on me, or rather in me, or rather more of me -- Billy. Her body was vibrating in such harmony with mine that each ripple of muscle, the very coursing of blood through her veins was a matter of absolute intimacy...body messages of a subtlety and tenderness both exotically strange and deliciously familiar. Deep within, a point of heat in my groin slowly but powerfully and inevitably radiated throughout my body until every cell became a sun emanating its own life-giving fire. My body was an energy field, a set of vibrations

with each cell pulsing in phase with every other. And Billy, whose cells now danced the same tune, was no longer a discrete entity but a resonating part of the single set of vibrations. The energy was love."

Exactly twenty-five minutes after administration, the psychologist smiled, sighed, sat up swinging his legs over the side of the couch and said, "It lasted for a million years and for a split-second. But it's over and now it's your turn."

With this reassuring precedent, I took up position on the couch. Margaret sat on the floor holding my hand. The psychologist sat at the foot of the couch, radiating benevolence. The drug was administered.

The First DMT Experience

"My experience with DMT occurred in the most favorable setting. We had just witnessed the ecstatic experience of my colleague and the radiance of his reaction provided a secure and optimistic background. My expectations were extremely positive.

"Five minutes after i.m. injection, lying comfortably on the bed, I felt typical psychedelic onset symptoms -- a pleasant somatic looseness, a sensitive tuning-in to physical sensations.

"Eyes closed...typical LSD visions, the exquisite beauty of retinal and physical machinery, transcendence of mental activity, serene detachment. Comforting awareness of Margaret's hand and the presence of friends.

"Suddenly I opened my eyes and sat up... the room was celestial, glowing with radiant illumination... light, light, light... the people present were transfigured... godlike creatures... we were all united as one organism. Beneath the radiant surface I could see the delicate, wondrous body machinery of each person, the network of muscle and vein and bone -- exquisitely beautiful and all joined, all part of the same process.

"Our group was sharing a paradisaical experience -- each one in turn was to be given the key to eternity -- now it was my turn, I was experiencing this ecstasy for the group. Later the others would voyage. We were members of a transcendent collectivity.

"Dr. X coached me tenderly... handed me a mirror where I saw my face a stained-glass portrait.

"Margaret's face was that of all women -- wise, beautiful, eternal. Her eyes were all female eyes. She murmured exactly the right message. 'It can always be this way.'

"The incredible complex-unity of the evolutionary process -- staggering, endless in its variety -- why? Where is it going? etc., etc. The old questions and then the laughter of amused, ecstatic acceptance. Too much! Too great! Never mind! It can't be figured out. Love it in gratitude and accept! I would lean forward to search for meaning in Margaret's china-flecked face and fall back on the pillow in reverent, awed laughter.

"Gradually, the brilliant illumination faded back to the three-d world and I sat up. Reborn. Renewed. Radiant with affection and reverence.

"This experience took me to the highest point of LSD illumination -- a jewel-like satori. It was less internal and more visual and social than my usual LSD experiences. There was never a second of fear or negative emotion. Some moments of benign paranoia -- agent of the divine group, etc.

"I am left with the conviction that DMT offers great promise as a transcendental trigger. The brevity of the reaction has many advantages -- it provides a security in the knowledge that it will be over in a half hour and should make possible precise exploration of specific transcendental areas."

The Set And Setting For The Programmed Experience

Immediately after my first DMT voyage the drug was administered to the Hindu monk. This dedicated man had spent fourteen years in meditation and renunciation. He was a *sannyasin*, entitled to wear the sacred saffron robe. He has participated in several psychedelic drug sessions with extremely positive results and was convinced that the biochemical road to *samadhi* was not only valid but perhaps the most natural method for people living in a technological civilization.

His reaction to DMT was, however, confusing and unpleasant. Catapulted into a sudden ego-loss, he struggled to rationalize his experience in terms of classic Hindu techniques. He kept looking up at the group in puzzled helplessness. Promptly at twenty-five minutes he sat up, laughed, and said, "What a trip that was. I really got trapped in karmic hallucinations!"

The lesson was clear. DMT, like the other psychedelic keys, could open an infinity of possibilities. Set, setting, suggestibility, temperamental background were always there as filters through which the ecstatic experience could be distorted.

On return to Cambridge, arrangements were made with a drug company and with our medical consultant to run a systematic research on the new substance. During the subsequent months we ran over one hundred sessions -- at first training exercises for experienced researchers and then later trials with subjects completely inexperienced in psychedelic matters.

The percentage of successful, ecstatic sessions ran high -- over ninety percent. The set-setting hypothesis clearly held for DMT in regard to positive experiences. But there were certain definite characteristics of the DMT experience which were markedly different from the standard psychedelics -- LSD, psilocybin, mescaline. First of all, the duration. The eight-hour LSD transformation was reduced to around thirty minutes. The intensity was greater as well. This is to say, the shattering of learned form perception, the collapse of learned structure was much more pronounced. "Eyes closed" produced a soft, silent, lightning fast, whirling dance of incredible cellular forms -- acre upon acre, mile upon mile of softly-spinning organic forms. A swirling, tumbling, soft rocket-ride through the factory of tissue. The variety and irreality of the precise, exquisite, feathery clockwork organic machinery. Many LSD subjects report endless odysseys through the network of circulatory tunnels. Not

with DMT, but rather a sub-cellular cloud-ride into a world of ordered, moving beauty which defies external metaphor.

"Eyes open" produced a similar collapse of learned structure -- but this time of external objects. Faces and things no longer had form but were seen as a shimmering play of vibrations (which is what they are). Perception of solid structures was seen to be a function of visual nets, mosaics, cobwebs of light-energy.

The transcendence of ego-space-time was most often noticed. Subjects frequently complained that they became so lost in the lovely flow of timeless existences that the experience ended too soon and was so smooth that landmarks were lacking to make memory very detailed. The usual milestones for perception and memory were lacking! There could be no memory of the sequence of visions because there was no time -- and no memory of structure because space was converted into flowing process.

To deal with this problem we instituted programmed sessions. The subject would be asked every two minutes to respond, or he would be presented with an agreed-upon stimulus every two minutes. The landmarks would, in this way, be provided by the experimenter -- the temporal sequence could be broken up into stages and the flow of visions would be divided into topics.

As an example of a programmed session using DMT, let us consider the following report: The plan for this session involved the experiential typewriter. This device, which is described in a previous article (7) is designed to allow non-verbal communication during psychedelic sessions. There are two keyboards with ten buttons for each hand. The twenty keys are connected to a twenty-pen polygraph which registers an ink mark on a flowing roll of paper each time a key is struck.

The subject must learn the codes for the range of experience before the session and is trained to respond automatically, indicating the area of his consciousness.

In this study it was agreed that I would be questioned every two minutes, to indicate the content of my awareness.

The session took place in a special session room, eight-by-twenty, which was completely covered, ceiling, walls and floor, by warm, colorful India prints. The session followed the "alternating guide" model: another researcher, a psychopharmacologist, was to act as interrogator for my session. The pharmacologist was then to repeat the session with Leary as interrogator.

At 8:10 p.m. I received 60 mgs of DMT.

The Second DMT Experience

Lay back on mattress, arranging cushions... relaxed and anticipatory... somewhat amused by our attempt to impose time-content mileposts on the flow of process... soft humming noise... eyes closed... suddenly, as if someone touched a button, the static darkness of retina is illuminated... enormous toy-jewel-clock factory, Santa Claus workshop... not impersonal or engineered, but jolly, comic, light-hearted. The

evolutionary dance, humming with energy, billions of variegated forms spinning, clicking through their appointed rounds in the smooth ballet...

MINUTE 2. TIM: WHERE ARE YOU NOW? Ralph's voice, stately, kind... what? where? You?... open eyes... there squatting next to me are two magnificent insects... skin burnished, glowing metallic, with hammered jewels inlaid... richly costumed, they looked at me sweetly... dear, radiant Venutian crickets... one has a pad in his lap and is holding out a gem-encrusted box with undulating trapezoidal glowing sections... questioning look... incredible... and next to him Mrs. Diamond Cricket softly slides into a lattice-work of vibrations... Dr. Ruby-emerald Cricket smiles... TIM WHERE ARE YOU NOW... moves box towards me... oh yes... try to tell them... where... *At two minutes, the subject was smiling with eyes closed. When asked to report he opened his eyes, looked at the observers curiously, smiled. When the orientation question was repeated he chuckled, moved his finger searchingly over the typewriter and (with a look of amused tolerance) stabbed at the "cognitive activity" key. He then fell back with a sigh and closed his eyes.* Use mind... explain... look down at undulating boxes... struggle to focus... use mind... yes COGNITIVE... there...

Eyes close... back to dancing workshop... joy... incredible beauty... the wonder, wonder, wonder... thanks... thanks for the chance to see the dance... all hooked together... everything fits into the moist, pulsating pattern... a huge grey-white mountain cliff, moving, pocked by little caves and in each cave a band of radar-antennae, elf-like insects merrily working away, each cave the same, the grey-white wall endlessly parading by... infinity of life forms... merry erotic energy nets...

MINUTE 4. TIME, WHERE ARE YOU NOW? Spinning out in the tapestry of space comes the voice from down below... dear kindly earth-voice... earth-station calling... where are you?... what a joke... how to answer... I am in the bubbling beaker of the cosmic alchemist... no, now softly-falling star dust exploding in the branches of the stellar ivory birch tree... what?... open eyes... oh dear lapidary insect friends... Ralph and Susan beautiful orange lobsters watching me gently... faces shattered into stained-glass mosaic... Dr. Tiffany Lobster holds out the casket of trapezoidal sections... look at glowing key... where is Venutian ecstasy key?... where is key for the stellar explosion of the year 3000?... EXTERNAL PROCESS IMAGES... yes... hit the key... timble back to Persepolitic pulse... *At four minutes the subject was still smiling with eyes closed. When asked to report, he opened his eyes and laughed. He looked at the observers with twinkling eyes, studied the keyboard of the experiential typewriter and pressed the EXTERNAL PROCESS IMAGE key. He then fell back and closed his eyes.*

How nice... they are down there... waiting... no words up here to describe... they have words down there... see rolling waves of colored forms whirling up, bouncing jolly... where do they come from... who is architect... merciless... each undulating dancing factory devouring other... devouring me... pitiless pattern... what to do... terror... ah let it come... eat me... whirl me up in the ocean of snowflake mouths... all right... how it all fits together... auto-pilot... it's all worked out... it's all on auto-pilot... suddenly my body snaps and begins to disintegrate... flow out into the river of energy... good-bye... gone... I that was is now absorbed in electron flash... beamed across star space in orgasm pulses of particle motion... release... flashing light, light, light...

MINUTE 6. TIM, WHERE ARE YOU NOW? Earth voice calling... you there, meson hurdling in nuclear orbit... incorporate... trap the streaking energy particle... slow down... freeze into body structure... return... with flick of open eye the nuclear dance suddenly skids into static form... see two clusters of electrons shimmering... the Ralph galaxy calling... the Mrs. Ralph galaxy smiling... the energy dance caught momentarily in friendly robot form... hello... next to them a candle flame... center of million-armed web of light beams... the room is caught in a lattice of light-energy... shimmering... all vision is light... there is nothing to see but light waves... photons reflected from Ralph's quizzical smile... awaits the answer... photons bouncing off the quivering keys of the typewriter... how easy to beam a radio message down... finger taps EXTERNAL PROCESS IMAGES... *At six minutes the subject had just finished frowning in what seemed like a passing fear or problem. When contacted to report, he glanced around the room and without hesitation pressed the EXTERNAL PROCESS KEY. He then closed his eyes.*

Eyes closed but after-image of candle-flame remains... eyeballs trapped in orbit around internal light center... celestial radiance from the light center... light of sun... all light is sun... light is life... live, lux, luce, life... all is a dance of light-life... all life is the wire... carrying light... all light is the frail filament of the light... solar silent sound... beamed out from sun-flare... light-life...

MINUTE 8. TIM, WHERE ARE YOU NOW? In the heart of the sun's hydrogen explosion... our globe is light's globe... open eyes drape curtain over sun flare... open eyes bring blindness... shut off internal radiance... see chiaroscuro God holding shadow box... where is life?... press WHITE LIGHT KEY. *At eight minutes the subject, who had been lying motionless against the cushions, opened his eyes. His expression was dazed, surprised. Without expression he pressed key for WHITE LIGHT.*

Key eyes open... fixed... caught... hypnotized... whole room, flowered walls, cushions, candle, human forms all vibrating... all waves having no form... terrible stillness... just silent energy flow... if you move you will shatter the pattern... all remembered forms, meanings, identities meaningless... gone... all is a pitiless emanation of physical waves... phenomena are television impulses crackling across an interstellar program... our sun is one point on an astrophysical television screen... our galaxy is a tiny cluster of points on one corner of the TV screen... each time a supernova explodes it is simply that point on the screen changing... the ten billion year cycle of our universe is a millisecond flash of light on the cosmic screen which flows endlessly and swiftly with images... sitting motionless... not wishing to move, to impose motion on the pattern... motionless in speed-of-light motion...

MINUTE 10. TIM, WHERE ARE YOU NOW? Ground-tower beaming up navigational query... flood of amazed love that we *can* contact each other... we do remain in contact... where was that cluster then... hallucinating... science-fiction metaphors... where is key... there... EXTERNAL HALLUCINATIONS... *From eight to ten minutes the subject sat motionless, eyes open in a trance-like state. There was no attempt to communicate. When contacted he moved slowly but surely and pressed the EXTERNAL HALLUCINATIONS KEY.*

Quotes from the Research Questionnaire filled out after the session: loss of space-time... merging with energy flux... seeing all life forms as physical waves... loss of body... existence as energy... awareness that our bodies are momentary clusters of energy and that we are capable of tuning in on patterns of non-organic patterns... certainly that life processes are on "auto-pilot"... there is nothing to fear or worry about... a feeling of freedom to go back and "freeze" the energy process momentarily in the old ego-robot... a reminder of the infinite unfolding complexity and endlessness of the life process... sudden understanding of the meaning of terms from Indian philosophy such as "maya," "maha-maya," "lila"... insight into the nature and varieties of transcendental states... the void-white-light-content-less, meta-life-inorganic ecstasy... the Kundalini-life-force-biological-squirring-moist-sexual organic ecstasy... the singing-genetic-code-blueprint-temporary-structuring-of-form ecstasy and the...

MINUTE 12. TIM, WHERE ARE YOU NOW? Open eyes... laugh... caught by vigilant ground-tower while orbiting around earthy-mind-figure-it-out area... where is key for thinking earth-word thoughts... hallucinations... no, the thinking game... press COGNITIVE KEY... *From the tenth to twelfth minute the subject sat looking blankly and without motion at the wall of the room. When contacted he smiled and pressed the COGNITIVE key.*

Above head is light bulb covered with scalloped lightblue shade... circling up to the glowing shade are ribbons of waves... silent... beckoning... inviting... join the dance... leave your robot... a whole universe of delightful, aerial choreography awaits... yes join them... suddenly, like smoke rising from a cigarette, consciousness circled up... swooping graceful gull-paths up to light source and, soundlessly, through into another dimension... from the research questionnaire: a description of the level reached is a prose yoga beyond present attainment... there were billions-of-file-cards, helical in shape, which, flicked through, confronted me with an endless library of events, forms, visual perceptions, not abstract but all experiential... a billion years of coded experience, classified, preserved in brilliant, pulsating, cool clarity that made ordinary reality seem like an out-of-focus, tattered, jerky, fluttering of peep-show cards, tawdry and worn... any thought once thought, instantly came alive and flicked by the shuttered aperture of consciousness... but at the same time there was no one to observe... I... he... the one-aware... all humming in electronic, technicolor SEE! vision for one who has been centuries blind...

MINUTE 14. TIM, WHERE ARE YOU NOW? Oh, where are we now?... oh listen, here's where we are... once there was a glowing electric dot, a flash reflected from the heart of a cut diamond which, oh there, now, caught the light of sun flame and glittered... sudden flash in pre-cambrian mud... the dot stirs and quivers with tremble-strain-exultant-singing-throbbing-shuddering twist upwards and a serpent began to writhe up and through the soft, warm silt... tiny, the size of a virus... growing... the enormous length of a microscopic bacillus... flowing exultantly, always singing the Hindu flute-song... always bursting out, enfoliating... now the size of the moss root, churning through fibred-cunt-mattress-moist-spasm churning... growing... growing... ever exfoliating its own vision... always blind except for the forward point of light-eye... now belts of serpent skin, mosaic-jeweled rhythmically jerking, snake-wise forward... now the size of a tree-trunk, gnarled and horny with the sperm-sap moving within... now swelling, tumescent into mississippi flood of tissue writhing... pink, silt

current of singing fire... now circling globe, squeezing green salt oceans and jagged brown-shale mountains with constrictor grasp... serpent flowing blindly, now a billion-mile endless electric-cord vertebrated writhing cobra singing Hindu flute-song... penis head throbbing... plunged into all smells, all color tapestry of tissue... blind writhing, circled tumescent serpent blind, blind, blind, except for the one jeweled eye through which, for one frame's flickered second each cell in the advancing parade is permitted that one moment face-to-face, eyeball to solar flame insight into the past future...

TIM, TIM, WHERE ARE YOU NOW? La Guardia tower repeats request for contact with the ship lost out of radar scope... where?... I am eye of the great snake... a fold of serpent skin, radiating trapezoidal inquiry swims into focus... register conscious content... where are you?... here... INTERNAL HALLUCINATIONS. *From minute twelve to fourteen the subject sat silent with eyes closed. When contacted he failed to respond and after thirty seconds was contacted again. He then pressed EXTERNAL HALLUCINATION key.*

The session continued with two minute interruptions until the twentieth minute in the same pattern: timeless flights into hallucinatory or pure energy vibration fields with sudden contractions to reality in response to the observer's questions.

The session report filled out the next day contained the following comments about this method of session programming.

This session suggested some solutions about the problem of communicating during psychedelic experiences. The person "up there" is being whirled through experiences which spin by so rapidly and contain structural content so different from our familiar macroscopic forms that he cannot possibly describe where he is or what he is experiencing. Consider the analogy to the pilot of a plane who has lost his bearings who is talking by radio to La Guardia tower. The pilot is experiencing many events -- he can describe the cloud formations, lightning flashes, the etching of ice on the plane window -- but none of this makes any sense to the tower technicians who are attempting to plot his course in the three-dimensional language of navigation to plot his course in the three-dimensional language of navigation. The person "up there" cannot provide the categories. The ground control personnel must radio them "up." 'Cessna 64 Bravo, our radar scopes show you are fifteen miles southwest of International Airport. The red glow you see is the reflection of Manhattan. To head on a course for Boston you must change your course to 57 degrees and maintain an altitude of 5500.'

But the language of psychology is not sophisticated enough to provide such parameters. Nor are there experiential compasses to determine direction.

What we can do, at this point, is to set up "flight plans." The subject can work out, before the session, the areas of experience he wishes to engage; and he can plan the temporal sequence of his visionary voyage. He will not be able, during the flight to tell "ground control" where he is, but ground control can contact him and tell him where to proceed. Thus, during this session, when Ralph asked, WHERE ARE YOU NOW?, I could not respond. I had to descend, slow up the flow of experience and *then* tell him where I ended up.

When the contact question came I would be hurtling through other galaxies. In order to respond, I had to stop my free rocketing, tumbling flight, return near the earth and say: "I am over New Haven."

This session was a continual, serial "come-down." I repeatedly had to stop the flow in order to respond. My cortex was receiving hundreds of impulses a second, but in order to respond to ground control's questions I had to grind the ship to a slow stall to say, at that moment. "I am here."

This session suggests that a more efficient way to chart psychedelic experiences would be to: 1) memorize the keyboard of the experiential typewriter so that communication down to ground control could be automatic, and 2) plan the flight in such a way that the ground control would not ask unanswerable questions -- "Where am I indeed!" but would tell the subject where to go. Then the communication task of the voyager would be to indicate if he were on course, i.e., that he was or was not following the flight instructions radioed up by ground control.

Ground control should send up stimuli. Suggestivity is wide open. La Guardia tower directs the flight.

DID YOU LEARN ANYTHING OF VALUE FROM THIS SESSION? IF SO, PLEASE SPECIFY: "Session was of great value. I am clearly and strongly motivated to work out methods of ground control and planned flights."

APPROXIMATELY HOW MUCH OF THE SESSION (IN % OF TIME) WAS SPENT IN EACH OF THE FOLLOWING AREAS?

- A. INTERPERSONAL GAMES 10% (fondness for observers)
- B. EXPLORING OR DISCOVERING SELF, OR SELF GAMES 0%
- C. OTHER GAMES (SOCIAL, INTELLECTUAL, RELIGIOUS) 70%
(intellectual, struggling with problem of communication)
- D. NON-GAME TRANSCENDENCE 20% (continually by questions)

References

1. Szara, S: Hallucinogenic effects and metabolism of tryptamine derivatives in man. *Fed. Proc.* 20: 858-888, 1961.
2. Szara, S: Correlation between metabolism and behavioral action of psychotropic tryptamine derivatives. *Biochem. Pharmacol.*, 8: 32, 1961.
3. Szara, S: Behavioral correlates of 6-hydroxylation and the effect of psychotropic tryptamine derivatives on brain serotonin levels. *Comparative Neurochemistry*, ed. D. Richter, pp. 432-452. Pergamon Press, Oxford, 1964.
4. Szara, S. & Axelrod, J.: Hydroxylation and N-demethylation of N,N-dimethyltryptamine. *Experientia*, 15: 216-220, 1959.

5. Szara, S., Hearst E. & Putney F.: Metabolism and behavioral action of psychotropic tryptamine homologues. *Int. J. Neuropharmacol.*, 1: 111-117, 1962.
6. Schultes, R.E. Botanical Sources of the New World Narcotics. In Weil, G.M., Metzner, R. & Leary, T. (eds). *The Psychedelic Reader*, University Books, New Hyde Park, 1965.
7. Leary, T. The Experiential Typewriter. *Psychedelic Review*, No. 7. 1965.