SUBJECTIVE REPORTS OF LYSERGIC ACID EXPERIENCES IN A CONTEXT OF PSYCHOLOGICAL TEST PERFORMANCE

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The psychotomimetic drugs have proven valuable tools in neuropsychiatric research. Of these agents lysergic acid diethylamide[2] (LSD-25) is preferred at present for the production of a dissociation state or "model psychosis." It is a matter of current controversy whether the subject undergoes a toxic psychosis or a schizophreniform state. There is no desire to participate here in such controversy; however, reactions which included aspects of both the toxic and the schizophrenic psychoses were observed. Furthermore, in some cases no psychotic process whatsoever appears to be involved.

Investigators who have attempted to evaluate the effect of the hallucinogenic drugs on personality have approached the problem from several parameters. Some use clinical appraisal, others contrive stressful situations, a growing number make use of psychological test batteries, and some employ a combination of methods. It is possible that there is still another source of information which has so far not been fully utilized—narrative reports by the subject himself.

Although introspective reports should be approached with caution, verbal subjects gifted with some measure of lucidity may offer insights which would otherwise escape detection. This is particularly true since the LSD-25 experience is, for many individuals, so overwhelming that immediate, effective communication becomes disrupted. Valuable information is often lost when a subjective description of the event is not recorded as soon as possible after termination of the major effects of the drug(1, 2).

It is recognized that the validity of individual introspective reports is tentative because of the possibilities of distortion which may occur at any point in the process from experience to narration. However, if the reports can be correlated with clinical observation and psychological test results, a new dimension of insight into the LSD experience becomes available. There seems to be distinct value to subjective descriptions, especially when counter-balanceed by the more objective psychological test material.

The following 5 case reports were selected from a study of 30 volunteer subjects, male and female, whose ages ranged from 22 to 57 years. None of these persons had ever required neuropsychiatric hospitalization or intensive psychotherapy. A battery of psychological tests[3] was administered under both control and drug conditions. The average dose was 100 micrograms of LSD-25 diluted in distilled water and administered orally at 8:00 a.m. to the fasting subject. Each volunteer agreed, as part of the study, to write a report of his experience that same day, if possible.

These examples are chosen for clinical variety and the expressiveness of the subjective reports. They also appear to be a fair sampling from the range of possible LSD-25 reactions. Although the cases appear to have a sustained direction toward a particular diagnostic category, this correspondence is not exact. Even if diagnostic labels were completely precise, it would be impossible to match reaction to category because a subject could progress through a series of affectual changes. These might vary from deepest dysphoria to soaring euphoria during a single drug experience, and also at times manifesting paranoid and catatonic type thinking and behavior.

A brief summary of performance changes on the psychological tests will be given. A subsequent report will deal more fully with the significant changes on the tests between drug and non-drug conditions and with the

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[2] The lysergic acid diethylamide was supplied by Mr. Harry Althouse of Sandoz Pharmaceuticals, Inc.

[3] The battery consisted of the following projective tests: Rorschach, Thematic Apperception Test (TAT), Draw-A-Person (DAP), Bender Gestalt, Saxe Sentence Completion and Word Association. Other tests given were: Shipley-Hartford, Grayson Perceptualization, Minnesota Multiphasic Personality Inventory (MMPI) and an adjective check list.

implications of these changes. However, a few overall remarks may be pertinent with respect to the sample in general.

As the drug took effect, the subjects showed varying amounts of change in sensory and motor function. Everything from slight visual blurring to synesthesias and the apparent motion of stable objects was reported. Sometimes the movements of the subjects became more expansive, and sometimes they were so inhibited that the individual could not raise a finger.

With respect to intelligence, there was a drop in IQ scores on the Shipley-Hartford scale in 24 out of 30 cases under LSD-25. Abstract thinking was more affected than was vocabulary retention. The range of IQ change was from an increase of 11 points to a decrease of 41 points with the mean IQ change a decrease of 8.9 points.

The most outstanding features of the personality changes as revealed by the projective techniques were three. 1. A striking general disruption of the defensive system of the individual occurred. Breakdown of defensive structure was significantly more frequent and more pathological and there was an increased appearance of repressed material. 2. There was an impairment in reality contact which was reflected in bizarre responses and actual perceptual distortions up to and including hallucinations. 3. A disruption in the ability to maintain any sustained effort in dealing with the demands of the environment was a consistent finding. This was particularly clear in the disinclination and sometimes incapacity to perform the tasks set before him.

Probably because of the lowering of ego defenses, there appeared to be a lessening of differentiation between outer and inner stimuli, and the usually clear-cut divisions between sensory modalities became blurred with assorted synesthesias making their appearance. Accompanying the decreased awareness of external stimuli was a general turning inward of attention and an obvious preoccupation with internal productions.

One of the most provocative observations was the variety of mechanisms of coping with the effects of the drug. Some individuals exhibited a single regressive mode of defense; other subjects seemed to run though a repertoire of defensive techniques, either singly or several at a time; and others allowed their defensive system to be disrupted without anxiety. These latter appeared to experience a type of dissociation or depersonalization which was described as extremely pleasant, insightful and integrating.

It is of intense interest to speculate on the determinants of the direction of experience under LSD-25 which do not seem to be consistent in the same subjects from one session to another. The type of reaction seems to be a function of the personality of the subject, the conditions surrounding the situation, the people present during the drug-induced state, and the immediate circumstances of the subject's life. Further research is needed in this area to clarify the relationship of these variables, and to discover any other factors involved.

CASE REPORTS

CASE 1. Woman psychologist.—The test changes from non-drug to drug battery showed a general regression from a high level of operational efficiency to one of disorganization and withdrawal. There was a drop from 145 to 137 in IQ, and most of this reflected an impairment in the ability to reason abstractly. Tests which were done with speed and efficiency under the control conditions were left unfinished or were completed with the greatest urging under the drug. A number of replies on the tests were left blank, and an even larger percentage were answered by inappropriate perseverations of "nothing" and "no." The over-all picture of regressive withdrawal is perhaps best typified by the figure drawings. Under control conditions these were large, easily recognizable male and female figures; under the drug all the subject was able to produce were two tiny question marks in the upper righthand corner of the paper. One of the figures had a small box drawn around it. These would be an indication that the subject was unable to conceptualize or to produce even the most rudimentary human figure. In summary: the clinical picture changed from a highly intelligent normal subject with some anxiety and rather overt aggression to that resembling a catatonic schizophrenic.

Subjective Report: "The psychologist told me to get up and go over to a table and take some tests. I started to go, but nothing happened. I tried very hard to move. I pushed, but my body would not move. When I finally got it going, it went all right, but it was hard to stop. I wasn't thinking about anything but what I had to do which was move . . . Sometimes I would notice painful sensations in some part of my body which I knew in a vague sort of way were caused from being in one position too long. When I felt these I knew that they were intense sensations, but it didn't seem to

matter very much. But whenever I became aware of pain, I tried to change position to relieve it. Sometimes it worked, and I was able to move. Sometimes I tried my best for a long time and nothing happened, so I would just stay the way I was and put up with the pain until I didn't notice it anymore . . .

"People would come in from time to time. If they were within my field of vision, I saw them. If they were not within my field of vision, I forgot they were there. Once I seemed to clear up a little, and I wondered who was sitting next to me; I tried to turn my head to see, but it wouldn't move. Whenever anybody asked me something, I tried to answer. Sometimes I wouldn't be thinking at all, just blank. Occasionally I would know exactly what I wanted to say. I would try to say it, and nothing would come out. Then I would line up some words to say, line them up in my mouth and work on getting the first one out on the theory that if I could get one word out, the rest would be easy. But this usually did not work . . .

"Somebody asked me if I were happy. In a fuzzy sort of way I wanted to explain that I just couldn't answer the question because it didn't have any meaning. I didn't think I was happy or unhappy, but I wasn't sure just what this was. I couldn't answer the question as phrased because the terms were just not relevant. This thought was hopelessly complicated to me. To get out of not being able to say anything, I just said, 'sure.'

"My most striking impression of the way I felt was of the tremendous amount of effort I was putting out for very little return. Now it seems to me that I found everything impossible but unavoidable. I felt no anxiety at any time after the drug took effect. I think now that anxiety would have been a very pleasant feeling and a welcome relief from the nothing in which I spent today."

CASE 2. Male teacher.—The test changes from non-drug to drug battery showed less deterioration than those of the majority of the subjects. There was an unevenness of performance which makes it difficult to give a consistent picture of the changes. For instance, when asked to tell stories to a set of pictures, the subject was able only to describe what was on the cards; on the Rorschach, by contrast, productivity was doubled and most of the responses were of a high caliber. These responses showed less anxiety and defensiveness against aggression and sexuality, and the homosexual flavor of the control record disappeared. There was also not as much preoccupation with a conflictual life situation on the drug tests as there had been on the control. There was a rise in IQ from 131 to 133 points which is not significant, but which is interesting because with the majority of the subjects there was a significant drop in IQ level. The subject demonstrated vividly in his test battery the visual changes which occur with the drug in heightened three dimensionality and the apparent movement of static surfaces. In summary: contrary to the trend, this subject showed less anxiety and defensiveness under the drug and seemed in better control of threatening unconscious material. There was an unevenness about his performance, suggesting that the effects of the drug waxed and waned, thus making it difficult to summarize the direction of clinical change.

Subjective Report: "About this time I noticed the bed, table legs, the doctor's legs and shoes, everything in my visual field was close around me, and they were very large. It was as though everything were on a convex surface about me. I have no idea how long this lasted, but following this, I suddenly felt that everything was 'away' from me. There was too much distance from me to the objects about me, the floor was spacious. This change occurred more than once (close-in-large to away). During one of the close-in phases the objects about me seemed to have no common base or ground. They all seemed to be floating on surfaces, transparent and their own; yet all were related and the phenomena felt normal. I was intensely aware of everything and felt I was experiencing something extremely important.

"We left the room, and I went to the lavatory . . . while there I looked in the mirror. I appeared drawn and lifeless and, therefore, somewhat shocked. I believe this may have been the beginning of the 'away' phase. Going through the halls there was little of interest. Coming upon the outside court . . . the 'outside' at this time appeared lifeless and not quite real. It was dull, flat, and colorless . . .

"We walked over to the cafeteria. As we entered, the music being played on the juke box 'caught' me. I began to walk in rhythm with it . . . Looking around as we walked toward the cafeteria line, I began to notice color. By the time we reached the line, colors were intense and saturated. The salads and desserts on the shelf became the most marvelous sight I had ever seen. As food the thought never occurred to me. My attention was taken by people and movement. At this time my sense of time was warped all out of proportion. An intensity crept into all objects. There was no distinction between animate and inanimate except for movement. It seemed to take hours to go through the cafeteria line.

"We left the cafeteria, went through the halls, and came out on the same yard or court previously mentioned. I would not have known it was the same place. The outside had the same quality about it that the cafeteria had. Everything was substantial. It was as though things were the way they should be—fantastically real. The trees were lush and their aroma was magnificant. All was fresh as I had never seen it before. I watched pigeons fly—there seemed to be after-images of them in their flight path. I could hardly leave the outdoors to go back into the building.

At this time I believe I left the phase of close-in (which started when I walked into the cafeteria) and began the away phase. In the room again we started working on the tests. I became quiet inside. Withdrawn and moody. I would have been content to sit and brood, but there was nothing to brood about. I just felt nothing was worthwhile and any effort was too great.

"I feel there were definite phases: close-in (euphoria) and away (depression). These seemed

to be an effect of the drug, but could be triggered by associations of a psychological nature. Not mentioned were feelings of being watched through the window in the door of the room. Also feeling that conversations were related to me."

CASE 3. Female Nurse.—The control battery showed a rather immature woman within the normal range but with a strong flavor of the labile hysterical personality. The drug first threw the subject into an acute panic and then intensified the immature and repressed elements of the personality, and there was a drop in efficiency of performance with the appearance of much more hostility and sexuality. This increase in sexuality was so threatening to the subject that she threw a Rorschach card reminding her of male genitals across the room and called it lewd and nauseating. The over-all drop in efficiency is typified by the drop of IQ level from 125 to 101 with the greater impairment in abstract reasoning. The general loosening of defenses was exhibited in associations such as "that's a place to live, too, I guess" to "vagina" and in her failure to draw both sexes in the figure drawings when under the drug. The control figures were rather silly and childish, but under the drug she was able to manage only one large, unclothed, undifferentiated figure and say, "There is no other sex, that's one and the same."

In summary: after the subject overcome the initial acute panic into which she was precipitated by the drug, the clinical picture which she had exhibited was that of an immature, labile woman whose defenses were loosened so that there was an increase in the appearance of overt aggression and sexuality. The appearance of this unconscious material and the feeling of loss of control were very threatening to the subject.

Subjective Report: "However, shortly I had the feeling of being choked from inside. I had difficulty breathing for a moment. Then I began to feel nauseated and restless. I said to the psychologist, 'I don't feel good at all'. I remember turning around in my chair and holding onto the table and putting my head down on my arm. Suddenly the tightness in my throat increased, and I began to feel as if my body were on fire both inside and outside. My neck and back felt very tense. I became very frightened and had the feeling of acute panic. I was being swirled and sucked down, down, down into oblivion. I clung to the table for dear life, but it did no good.

"The fear was overwhelming as I was thrust down into blackness. My body was burning up, and I began to sweat. This indescribable feeling of being swirled and thrust into some place else was easing somewhat. It seemed that I had been in this torment for weeks. After it had eased up, I knew beyond a doubt that I was in another world. I felt it and refused to tell the psychologist about it because he wouldn't understand. I remember thinking, 'This is what the psychotic feels like.' That feeling of panic and terror had left me tremulous and weak.

"At this point I felt as if there were a transparent wall all around me. It was so physical that I could almost reach out and touch it. I was completely enclosed in this wall, but I could see through it and hear everything that went on. . . . This transparent wall prevented other people from getting into my world, and also it kept me from going into theirs. I felt pleased and quite superior about this arrangement and thought that I had the advantage . . . Although the whole experience was interesting, no one could persuade me to go through the fear and discomfort again. The horror of 'losing control' is too much to expect of anyone to experience twice."

CASE 4. Male physiotherapist.—The outstanding change from control to drug battery was from rather defensive, careful—although slightly aggressive—performance to a relaxed happiness which was not disturbed even by the appearance of bizarre material. There was an IQ drop from 136 to 129 points, all of which appeared in the ability to reason abstractly. The relaxation of defensiveness, the lowering of intellectual controls, and the emergence of unconscious material is best exemplified by the figure drawings and the sentence completion test. The figures changed from well-defined although immature ones to purely symbolic drawings which resembled an embryo with a flowing tail and two ostrich feathers with beads at their base. On the sentence completion he perseverated "hot dog" 3 times, "Dad beat on the head" 4 times, and 5 sentences was happily preoccupied with Sigmund Freud. He felt he was really loved by him, people who didn't like Sigmund annoyed him, he wished his mother had married S.F. and so on for 8 out of 50 questions. He seemed conscious of his performance but undisturbed by it, and the bizarre material and disorganizations had a happy setting such as his drawing circles as musical notes and his gay choice of names in the stories he told (Murgatroid, Lotus Blossom, Hannah and Harry, etc.)

In summary: this subject seemed to welcome dissociation, the lessening of defenses and anxiety, and the appearance of unconscious material.

Subjective Report: "This sounds contradictory but isn't—this clear-headed confusion. A thing can become so bright it cannot be held within the human brain—so beautiful it aches to behold it—yet one looks and submits the flesh to this pain of beauty—this beauty is clear—the pain is the confusion. If the 'beauty' can look at the pain and become one with it—this is what I mean by clear-headed confusion. I recall seeing pictures and colors and many things . . . One thing is quite clear to me now as I return to the changing pictures, the colors swimming, retreating, charging: these colors to an artist are in reality a picture frame—the hard core, the soul, the God, the Be of the artist is the picture. His genius is as great as his ability to put his Be or Is or Oneness on the canvas. This can be rewritten for any of the Arts.

"My own slant was, I believe, particularly towards form and movement. At one point when I persisted in holding onto a single hair as if that was all that held me to reality and perhaps it was, you said why not choose a speck on the floor? I tried very hard to tell you it couldn't be just a speck on the floor. It had to be a symbol of my choice

and this now seems logical to me . . . You tell me and I tell me that I cannot see thru a file card, see my hand and the blood vessels, see the thickness of printers ink, and I must bow my head and say it can't be done. But surely, I did it. And this is the logic. What makes our logic better than the psychotic's logic? . . . Heretofore, over many years I have had a superior, somewhat supercilious attitude towards all organized religions. Today, on the way home, I tried to tell A. that I could now feel with people who had deep religious feeling . . .

"A week ago I would have thought that visions seen by 'normal' individuals were carefully considered fictions. Although my personal religious convictions have not changed, I can very well understand 'visions', 'calls', or deep religious feelings. However, I will still be suspicious of people who protest too much. A feeling of oneness with God cannot be mundane, practical consideration but must be an intenseness; not a common sketch but a masterpiece. This new acquaintance with reality will probably be the strongest reminder of my visit into mania. Reality will no longer be an absolute. I know now that the psychotic's reality is not mine and that for him, perhaps, his reality can be infinitely better than mine."

CASE 5. Male psychiatric aide.—Although both test batteries were defensive, there was more disorganization present on the drug tests. The IQ level fell from 133 to 126. On the word association test synesthesia was present and the subject saw the object represented on several occasions when the word was spoken. The type of defense shifted from the predominantly intellectual to the more withdrawn. There was less productivity and several refusals to answer. Evidences of fatigue and inertia were present, and more concern with themes of failure occurred in the stories. The regression and refusals appeared most clearly when unconscious material which the subject found distressing (mainly aggressive) showed evidence of appearing. There was much sensory involvement while under the drug, and cards with pictures or blots seemed to undulate and weave in almost living vibrations. In summary: the clinical picture was that of an extremely careful, defensive individual with a strong intellectual overlay who was much affected by sensory changes under the drug and whose defenses shifted from the intellectual to the more withdrawn when threatening unconscious material of a revealing nature began to appear.

Subjective Report: "When I started to tell what I saw, I would suddenly stop in amazement of what I had said. 'Well,' ran my private thought, I'll have to use more discretion than that in what I say.' A moment later I would find myself saying something even more disturbing. A sense of having lost control hit me, and produced a definite negative experience. I believe all the force of control and restraint that I could muster must have been called forth.

"My mind was busy. Was this an indication of the fears and violence I feared I might encounter deep down in my nature? This is the way I immediately interpreted it. A tendency to 'clam up' was now elevated to a ruling emotion . . . My usual determination to see a 'nice' meaning was powerless in the face of a violence that seemed almost vicious—For relief I turned to the lovely Utah landscape on the wall. And what should I find but a cloud line and horizon converted into a fierce pair of lips, snarling in a pulsating, threatening face. My body tensed; my feet began to sweat, and I believe I slid down in my chair; I don't know what good that was supposed to do, unless I thought I could duck out the back way. It would be difficult to describe my emotional response which somehow, stripped of its complex variations, amounted to an immense sense of failure.

"Only for perhaps 5 minutes did I wish I had not tried the drug. After that, the feeling that I wanted to try again grew steadily—it grew along with the feeling that I had started out right, that something unfortunate had happened, that my reactions did not indicate pure and simply that I was at heart a fearful person, ridden with guilt complexes. Actually, though this new and more hopeful interpretation was born early in the experience, the 'majority' of me had given up to negative emotions. I could see very little but disintegration in myself. Therefore it became very necessary to parry, to not reveal the mess that I was. I could keep that to myself, and attempt a major reconstruction privately later.

"We went to the canteen for lunch. By this time I seemed be at the peak of the effect of the drug—I was 'far gone' . . . I couldn't remember going down the hall or being on the elevator, though I can remember the elevator door opening very suddenly. The doctor commented on it; and I thought it was somehow significant as part of a trick. After all, it wasn't lunch time yet, I thought. Or maybe it was an act to test my powers of observation . . . In the cafeteria line I felt clumsy . . . I almost felt that (the waitress) was participating in a conspiracy to force me to reveal that I was 'gone.'

"I was really on guard now. The doctor suggested I find a table. Very cautiously I set out across the room, which was a vast place now, not at all certain that I would recognize an empty table. And I wondered if there would be any significance in the sort of location I would select. I was looking for significance in everything. I was wary and suspicious; but oddly enough still felt I could trust the doctor and psychologist. I knew I was paranoid, and yet no person seemed threatening . . .

"It was the oddest thing. I couldn't follow the conversation at all, can't remember a thing that was said. What impressed me was the staccato, rapid pace of the thing, and the 'gangster' quality. I thought they might be trying to see if I would later be able to link this act with reality . . . for the most part I was wrapped up in my own thoughts and emotions. I had failed. I was a mess. I thought of the report by another subject who commented that she knew this was 'how a psychotic feels.' I could go her one better: obviously I was psychotic . . . Early in the experience I had been able to make some shift between normal and LSD states of consciousness. But now I was entirely caught

up in the new world. I couldn't be sure that we were really at dinner at all. . . . Was I dreaming? I made a mental note to be sure and ask the doctor and psychologist if we had really gone to lunch at all.

"Once outside again, I saw a group of patients being escorted by several aides. Immediately I saw one of my friends, an aide, with the group . . . I thought to myself: 'It is very clever of them to have me see C. now. That adds a quality of verisimilitude.' (later when finishing the tests:) 'The test called up often rehearsed feelings of being accused' . . . Occasionally, for a moment at a time, I caught a painful sense of the inability to feel warmth or trust. I had a sense of isolation, of frigid aloneness built and defended by the intellect's too dominant questions, evaluations, and judgments."

SUMMARY

These personal narrations of subjects recently recovered from LSD-25 experiences supplement the information obtained by clinical observation and psychological test data and give insight into the qualitative change occurring within the individual.

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