

AGGRESSION AND THE CHRONIC USE OF LSD¹

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INTRODUCTION

The chronic ingestion of lysergic acid diethylamide (LSD) is a new phenomenon. We have some knowledge concerning its acute psychological and physiological effects (8), some knowledge regarding its effects on individuals who require psychiatric hospitalization (3, 4, 6) and we know that perceptual distortions and emotional storms, "persistent hallucinosis," occur in a portion of individuals after ingestion of the drug (12). We know little, however, concerning the effects of chronic ingestion in the dosage and at the frequency with which this drug has been used recently by certain segments of our society.

Striking similarities in the histories of individuals we interviewed who used the drug chronically and in their attitudes about aggression suggest that conflicts concerning aggression play a central role in determining the type of individual who uses the drug and in the effects of the intense drug experiences. Feelings of frustrated anger played a prominent part in the initial ingestion of LSD by our subjects. Their initial frustrated anger, however,

seemed to become structured in a complicated fashion by the effect of the drug since, in certain stages of the psychotomimetic experience, direct awareness of anger seems to be perceived as a personal catastrophic hell. This combination of anger and hellish experience seemed to produce in the chronic LSD user, "acidhead," and in its derived culture, "hippy," an overt passivity with its theme of "love." While, in fact, the soil from which the "flower children" arise is filled more with anger and aggression, thorns and thistles, rather than passion and petunias.

SUBJECTS

These observations were made in interviews with 23 chronic LSD users. We contacted these subjects privately through their friends, not through medical or psychiatric agencies, since we did not want to define our study population on the basis of psychopathology. We asked each to serve as a paid (\$1.50 per hour) subject in a research project. Each subject agreed to come to the Langley Porter Neuropsychiatric Institute for a day of interviews and tests.

These subjects, fifteen men and eight women, ranged in age from fifteen to twenty-seven. Their average age was twenty. Twenty-two were white and one was Chinese. Four were married but none were living with their legal spouses. Twenty-one of the twenty-three were from middle-class socio-economic backgrounds; ten from the upper middle-class. Nine were Protestant. Eight were Jewish. Five were Catholic. One was a Buddhist. Nineteen were high school graduates. Two were college graduates; one had a Master's degree in mathematics. Two

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were registered for the fall semester at a local college. Ten were employed. The remaining thirteen were not employed and had worked only intermittently and poorly. Only one of the presently employed group planned to remain at his present occupation. The remainder considered their present employment a temporary expediency.

PATTERN OF DRUG USE

The pattern of drug use in these subjects was remarkably similar. All subjects had used marijuana before using LSD. The males were introduced to marijuana at sixteen; the females at nineteen. The subjects liked marijuana, found the psychological effects interesting, and four to six months later, often at a time of emotional stress, ingested LSD. The average LSD dose used by these subjects varied from 200 to 400 micrograms. Though street dosages are notoriously unreliable, some of the users became quite sophisticated regarding the drug and their estimate of the amount is probably fairly accurate. The maximum dose taken within a six to eight hour period by any of the subjects was approximately 2000 micrograms. The maximum number of ingestions reported was three hundred, the least eleven. Only two subjects had taken the drug less than twenty-five times and the average number of ingestions reported by this group was sixty-five. The drug was usually taken in a group. Rarely was it taken in isolation. Often the drug was ingested in a forest or park. At other times it was taken in an apartment where friends and music were available. When "coming down" from the acute effects of the drug, most subjects enjoyed walking about, talking with and observing people.

It is not possible from my data to isolate the marijuana effects from the LSD effects. The chronic LSD users, themselves, attributed their attitudes to the intense LSD experience; however, the subjects described the marijuana experience as similar to a very mild LSD experience with more sedative and less excitatory side effects. Most used marijuana once or twice a week. A few used it every day; a few used it rarely. It is possible that some of the psychological aspects of marijuana and LSD are similar in nature but differ in degree of intensity. Of course the possible contaminants in the "street acid" used by these subjects may also contribute to the reported drug experiences.

A smattering of other psychoactive drugs—peyote, mescaline, psilocybin, DMT, morning glory seeds, Hawaiian wood rose, nitrous oxide and assorted mushrooms—had been used by most subjects. The experience with these drugs never approached the frequency or the intensity of the LSD use.

All had tried amphetamines orally. Three of the women had used methedrine® intravenously for brief periods. At the time of the interviews, none were using amphetamines and twenty-one of the twenty-three said they had never used them heavily. Barbiturates were not ingested by these subjects. Alcohol was not currently being used by any of the subjects.

Though several had one or two experiences smoking opium or sniffing heroin, none were taking or had taken the so-called hard narcotics such as heroin or morphine intravenously. Most had been present when these drugs were used by others. In their descriptions of these scenes, these subjects stressed the depravity, the filth and the masochistic rituals associated with the intravenous administration of narcotics. They felt that narcotic usage was "low-life," beneath them, and considered themselves to be distinctly and totally different from "dope addicts."

BEHAVIOR AND PERSONALITY

The subjects' dress varied from blue collar to mod. For the most part, it was casual with a touch of the mod. Their clothes were clean with variable press. Their hair was clean of varying length and with various levels of grooming. Their general physical condition was good.

The investigators on the project liked these people. The laboratory assistants who had coffee with the subjects and talked with them between test sessions also liked them. Only one or two were disliked or considered boring or weird. This response indicated, I believe, more than a morbid interest or curiosity on the part of the research personnel. As a group, the subjects were bright, curious, intense, and troubled by both internal and social stresses. Usually they spoke openly and intelligently about these difficulties and the research personnel responded positively to these qualities.

All of the subjects had had difficulty in adolescence. Their difficulties usually began in junior high school where they had felt inferior, unusual, and unable to compete scholastically or socially with their peers. They had been miserable and unhappy, often in spite of at least average intelligence and social skills. They had also been angry and frustrated with their parents. Intensely unhappy and resentful, these feelings seem to have been expressed in self-punitive behaviors, often in unsuccessful angry outbursts at the parents. Rarely was it expressed in successful antisocial behavior. There were two exceptions to this pattern. Two of our male subjects from lower socio-economic class backgrounds had been friends in high school and had engaged in gang fighting and car stealing.

Several subjects had been hospitalized in psychiatric

facilities because of adolescent turmoil. Three, two females and one male, made suicide attempts. Their feelings of frustration, of not being able to compete successfully sexually or professionally, usually became accentuated after high school or during the early months of college. Dropping out of competitive endeavors seemed to be an attempt to solve feelings of bewilderment, confusion, and depression. Dropping out, however, often accentuated them. LSD was taken, sometimes as a conscious effort, to blot out these feelings.

At the time of the interviews, after extensive experience with LSD, they had a remarkably passive stance towards life. Several said they carefully avoided "stepping on insects" because it showed disrespect for life to do so. All said that though previously they may have fought with peers or parents, this was no longer the case. It even bothered some of them that they were unable to express anger in situations that others might appropriately become angry. Several related experiences which had occurred while under LSD and which, to them, provided the basis for their passive, accepting, receptive philosophy. For example, while camping, one subject was bothered by clouds of mosquitoes. She said that she suddenly realized it was futile to want to hold her life and her energy inside herself. She accepted the fact that the mosquitoes should be able to use her life and her energy. She opened her body to them. "I didn't feel I should keep myself to myself shut up in my body. The thing I really wanted to do was to become part of the entire world."

The young males in this group were particularly striking. They seemed humble, soft, and passive, and were very unlike the usual stereotype of the active, aggressive American male. Their expressed concern about emotions, social issues, and philosophy seemed strikingly out of place in 19-year-olds, especially in those with predominantly blue collar educational and social backgrounds. Their concerns impressed me as genuine; not merely as expressions of a superficial homage to an external creed. Their pacifistic orientation was strikingly deep. These subjects were not politically active regarding their beliefs in contrast to the political activists at nearby colleges who expressed somewhat similar values. Our subjects felt their beliefs were personal truths that could not and should not be forced on others. The combination of their openness, their softness, and the depth and intensity of their philosophic religious attitudes resulted in several of the research personnel independently comparing them to their image of what the early Christians might have been like; the ones who walked quietly up to the hungry lions.

The subjects were truly non-belligerent in their attitudes. One said if someone was trying to kill him, he would let them; but maybe he wouldn't let his best friend be killed. He wasn't sure. Another put it this way: "If something offensive happened to me, I'd just figure it's the other guy's hang up. If I'm not being offensive, it's the other guy's problem. I just hope the other guy can change. If I got angry, I would just be lower than he is." Another said, "Anger comes from fear, so I always blame it on myself."

What anger was expressed seemed to be expressed in indirect methods such as through dress. One subject said, "If angry, I might dress up in funny clothes and hitchhike, kind of putting people down. People who had to see me would become upset." This non-aggressive or extremely indirect aggressive attitude seemed to permeate every aspect of their lives. They did not play competitive games. Each individual was supposed to do his own "thing" and to gain his own inner satisfaction. There was a de-emphasis on any form of competition, a denial of any possible pecking order, and a purposeful negation of the possession of materials.

Sex was also treated in a non-aggressive fashion. Sex was shared; no one possessed a lover. One shared his bed roll or pad with someone else for awhile but it was considered bad form if one individual made possessive claims on another. Sexual pleasure was to be shared like other commodities. It was not to be hoarded or made capital of. Each person was to be totally independent of the other.

The importance of the aggressive components of the male subjects' sexual life had decreased. Before using LSD they had been preoccupied with chasing and possessing women. The chase, the conquest and the possession were strong components of their sexual behavior. After experiences with LSD, they were more concerned about the interpersonal aspect of the relationship. Although there was usually no change in the frequency of sexual relationships, the game and the chase were no longer important.

The comments of the 15-year-old male in our sample, although more severe, illustrated the passive attitude towards sex described by the older males. He said he now cares nothing about sex. He used to think that sex was very important and that it was important to be accepted by girls. He still likes to talk with girls if they're around, but it "just doesn't seem important anymore."

Often subjects said they were no longer "up tight" about former duties they had felt obligated to discharge. They no longer felt guilty or anxious about failing to live up to their own or to their family's expectations. "No

creed no more." "Formerly I cared, I don't any longer." "I used to try, but I don't feel like trying any longer." The subjects described their present state as a pleasant relief from being "hung up" or "up tight." However, many subjects said they had great difficulty in motivating themselves to do things they themselves wanted to do. They could no longer make themselves work at tasks of their own choosing. One of the subjects who formerly read many books said it was now a great effort to pull one book off the shelf and begin to read. Several said they could not tolerate reading more than a few pages at a time. Similar difficulties were described by several of Kleber's subjects (7).

ANGER AND THE ACUTE LSD EXPERIENCE

The subjects' descriptions of severe unpleasant LSD experiences, "bum trips," stood out on two counts. One was the unusual nature of the experience itself, and the second was the role that anger seemed to play in provoking it. Each of the "bum trips" described to me occurred when the user was angry at an immediate person or situation. Medical personnel (7) at the Haight-Ashbury Medical Clinic also noted this relationship. They treated numerous youths whose "acid trips" had turned sour when someone on the street teased or irritated them.

One subject was asked to take the drug with an acquaintance she did not like and who irritated her. The subject reluctantly agreed. The acquaintance brought along an obnoxious boy friend that further irritated our subject. Several hours after the three had "dropped acid" together, at a time when our subjects was particularly irritated by the other two, she became very frightened. The Victorian buildings looked ugly, dirty and crumbling. She felt someone was going to attack her and hurt her. Another reported he had ingested the drug in his room at home while angry at his mother. Initially, the "trip" had been beautiful and then it exploded. He became very frightened. He thought he could hear monsters coming through the door. He was convinced they were coming through the door, would surround and eat him. One subject saw monsters coming at him. One felt he was in the midst of enemy airplanes. Sometimes the experiences were formless and were described as fear, blackness, a whirling greyness, or complete and utter despair.

LSD AND MAGICAL THINKING

About half of this group of predominantly upper middle-class youths—eleven—seriously believed in magic. They held naive, magical, almost omnipotent beliefs in

spite of their sophisticated backgrounds. Medical personnel (13, 14) working with chronic LSD users are often amazed by these beliefs. The naivety and magical beliefs often seemed to underlie serious errors in judgments. News media (9) have tended to underplay the seriousness with which these beliefs are held with tongue-in-cheek reports. The chronic LSD users believed in a personal animistic religion: That one's thoughts can set fires miles away. That one individual can read another's mind. That inanimate objects such as trees, tables, or books, for example, react to their emotional surroundings. Statements such as the following were made frequently: "A cigarette will not go out if people are arguing." "A desk will react to any kind of violence in the room." The subjects did not say that inanimate objects could feel, but they maintained that such objects did react to circumstances around them. Several felt their silent thoughts could influence events outside them. These subjects seemed puzzled when asked to further explain this phenomenon. They seemed more puzzled by my questions than by the credibility of their beliefs. It seemed they did not feel the necessity to pursue the aspects of causality as I did. These subjects were sincere about their beliefs, and expressed them more as statements of fact than of philosophy.

OBSERVATIONS BY OTHERS

Ungerleider (15) described a group of chronic LSD users who were members of a religious sect that used the drug as a part of their rituals. As adolescents they had often been in trouble with the law because of aggressive antisocial behavior. These individuals reported finding God and inner peace through their use of LSD. Their lore stressed the necessity of warm companionship at the LSD sessions and that one should not take the drug when angry. Grof (5), in Czechoslovakia, administered the drug serially to severely neurotic patients as part of an intensive psychotherapeutic, "psycholytic," treatment regimen. Similar religious attitudes developed in his Czech patients after intensive LSD experiences. His phenomenological descriptions of his patients' intense experiences on the drug, and of their religious, animistic beliefs duplicate almost exactly the reports of our San Francisco subjects. Dr. Grof's report clearly describes examples of personal irritating stimuli eliciting "bum trips." Brickman's (1) description of the hippy scene and of the hippy individual stresses the importance of the psychedelic experience. It "not only energizes the entire hipp scene, but it is specifically responsible for the non-violent ethic of the group." Smith (13), another observer of the chronic LSD user and the hippy culture, is similarly convinced that critical aspects of the hippy movement

are derived from the psychedelic experience. He feels that much of the hippy music, art, and creed is an attempt to recreate or maintain aspects of the drug experience.

DISCUSSION

The observations of the chronic LSD user reported in this paper and the reports of other investigators suggest that chronic ingestion produces characteristic phenomena. A crucial question is whether or not these characteristics would have been present in the chronic LSD user prior to the ingestion of LSD. A second question concerns the relationship of some phenomena produced by LSD ingestion and schizophrenia. This question is further complicated by the fact that many ambulatory schizophrenic individuals gain emotional support from the LSD culture and its premises. The ambulatory schizophrenic may take on some of the trappings of the "acidhead," and the "acidhead" may, independently, have some of the characteristics of the ambulatory schizophrenic. The chronic users, unlike schizophrenics, are involved with people and are interpersonally skilled. The clinical picture or unusual beliefs, relatively intact interpersonal relationships and cognitive abilities suggests that these subjects are more similar to individuals usually termed eccentric than to individuals diagnosed as schizophrenic.

McGlothlin (11) found that the passive introverted college student tended to have a more profound and lasting experience from three doses of 200 micrograms of LSD and tended to be more passive as a result of the experiences. Most of our subjects, prior to LSD, were passive individuals although several had been belligerent and antisocial. After LSD all the San Francisco users did not fight or have angry outbursts and were deeply committed to a passive, accepting stance. Perhaps this change along with dimension of passivity results from intense experience with LSD. Groff (5) postulates that the intense drug experience rekindles a series of complex neurophysiological-psychological events dating back to the birth trauma. Brickman (1) feels that the intense drug experience fosters an individual awareness of the death instinct. Smith (13) gives a predominately sociological explanation. I offer the following psychodynamic theory as a possible explanation.

LSD in the acute phase produces striking mental effects in susceptible individuals (8). Sensory input or sensory modulation is effected. The individual experiences subjective awareness of colors, sounds, textures, etc. The stimuli seem brighter, louder, or fluffier. Occasionally, sensory crossing occurs. Sounds, for example, may effect visual images. The jangling of a telephone can

turn a quiet, restful patterned image of pink and grey into a visual field of jarring green. Transpositions across various conceptual levels occur more readily. Thoughts may be seen as pictures; feelings or emotions may appear in the visual or cognitive systems as artistic or poetic-like creations. Emotional coldness may be experienced as images of icebergs or may appear in the thinking processes as metaphors. The drug experience also alters some of the basic reality-organizing and testing systems of the mind. The sense of time is altered and the individual's awareness of himself as a separate entity from the world around him is effected. At times he can no longer discriminate internal mental events from external environmental happenings. In this mental state one experiences, but cannot accurately discriminate, the source of one's experience. It is much like a dream state.

Given this altered state of mind in an individual, what would happen with various types of emotional pressure? If the emotion is love, one's images would reflect this emotion. The images and sensations would consist of tender scenes from childhood or religious themes. The diffuseness of one's self-boundaries accentuates the experience and one would perceive one's self as an inseparable part of a universe of love, a "bag of love."

If the emotion is anger or hate, the result would be images and sensations of anger or hate magnified into nightmarish proportions and experienced in an altered state of consciousness in which one is a part of a world of blackness populated by horrible, primitive, cannibalistic creatures. One's anger would be turned into images of demons who attack and who seem to occupy the very same space as the one who creates them. As in a dream there would be no clear definition of self from the surroundings; no beginning, no end. The resulting nightmare of one's anger is a "bum trip."

My thesis is that "acidheads" have learned that one can not take LSD and be angry. This combination has been severely punished by "bum trips." I postulate that these intense cognitive and affectual experiences act as powerful reinforcers gradually shaping an individual's thinking, beliefs, and behavior. Experiences with effects such as love and warmth are positively reinforced. Experiences with effects such as hate and anger are strongly punished. The life and beliefs of the "acidhead" thus become shaped into a highly specific form. Emotions of love and kindness are preached and lived, further reinforcing these attitudes. Ambitious enterprises that would foster competition, irritation, anger, and jealousy are not undertaken. Even competitive games are not played. Each individual does his own "thing" so that anger and hostility associated with a "pecking order" has no opportunity to arise. Anger and its derivatives, horribly

punished in the acute LSD state, are kept at a distance by every means possible.

The chronic LSD users' belief in magic may also arise as a learned consequence of their frequent intense experiences with the drug. In the state in which the affected mind is unable to discriminate between internal and external events, the subjective experience of feeling that one controls external events, which are in fact occurring in another portion of one's mind, is frequent. If the adage "Seeing is Believing" is correct, the chronic LSD users have ample personal evidence to support their beliefs in magic.

Biologists (2) consider aggression and its derivatives to be important components of the social organization of animals and man. If this is so, then perhaps Lorenz's (10) analysis of intraspecies aggression and the relevance of these aggressive patterns to man's behavior deserves comment here. Lorenz states: "We do not know how many important behavior patterns include aggression as a motivating factor, but I believe it occurs in a great many. What is certain is that with elimination of aggression . . . the tackling of a task or a problem, the self respect without which everything that man does from morning till evening, from the morning shave to the sublimist artistic or scientific creations, would lose all impetus; everything associated with ambition, ranking order, and countless other equally indispensable behavior patterns would probably also disappear from human life." This description sounds remarkably like the disavowal of aggression and its derivatives in work and

deed that the chronic LSD users recounted to me. If LSD is involved in the production of this state, it could, depending on the dosage, frequency, and type of individual, be used as a powerful therapeutic agent or as a solvent dissolving biological bonds necessary for human social organization.

SUMMARY

Interviews of twenty-three volunteer subjects who had ingested LSD frequently, an average of sixty-five times, disclosed striking similarities in their histories and attitudes. These chronic LSD users came from middle-class backgrounds, used LSD and marijuana, did not use narcotics, had experienced difficulty in competitive endeavors since their early teen-age years, and had been typically passive and self-defeating in their behavior before taking LSD. After intensive experience with LSD, they were more passive—profoundly passive and non-belligerent—kept direct awareness of anger and its derivatives at a distance by every means possible, and many held naive magical beliefs. Since these changes are similar to those described by other observers of the chronic LSD user, it raises the possibility that these changes are brought about by the drug. A theory postulating that these attitudes concerning aggression and its derivatives arise as a learned consequence of intense effectual experience induced by LSD and that the belief in magic similarly arises as a result of frequent drug experiences in which the affected mind is unable to discriminate between internal and external events, is offered as an explanation.

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