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CONFORMITY AMONG LSD USERS

By

R. Thomas Johnson

B. A. State University of New York at Buffalo, 1965

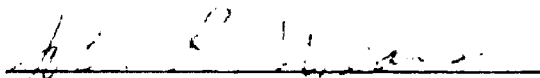
**Presented in partial fulfillment of
the requirements for the degree of**

Master of Arts

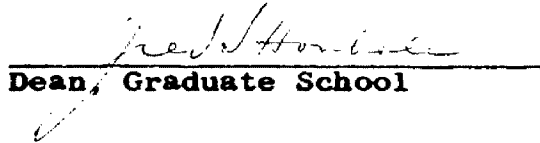
UNIVERSITY OF MONTANA

1967

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INTRODUCTION

The purpose of the present study was to investigate the relationship between conformity and the use of LSD. Previous researchers have typically defined conformity as the tendency to yield to group influence; that is, to let one's behavior be determined by external, rather than internal, frames of reference (Asch, 1956; Crutchfield, 1955). Additional research has indicated that this tendency to yield to the influence of others is a personality trait (Crutchfield, 1955; Asch, 1956; Rosner, 1957; Blake, Helson, & Mouton, 1957; Strickland & Crowne, 1962; Centers, 1963; Harper & Tuddenham, 1964; Antler, 1965; Back & Davis, 1965). In summarizing his studies of conformity, Asch concluded that the strength of one's tendency to conform could be evaluated on a continuum, ranging from "independent" through "intermediate" to "yielding". That is, individuals who conformed rarely were "independent", those who conformed most of the time were "yielders". Willis (1965), however, has recommended that a somewhat more complex model is needed to explain conformity. He defines conformity as behavior which is intended to fulfill perceived group expectations, and he says there are two types of nonconformity: independence, which is behavior that is not influenced by perceived group expectations; and anti-conformity, which is behavior that is

antithetical to perceived group expectations. Willis brings to attention here the important point that both conforming and anti-conforming behavior are determined by perceived group expectations.

The present study was designed to test hypotheses that LSD users are above average in their tendency to conform, and further, that they will manifest this tendency as anti-conformity on occasions in which they find it unacceptable to themselves to conform. The basis for this hypothesis is outlined below.

Previous research has indicated a major variable underlying a tendency to conform is a strong feeling of personal inadequacy or inferiority (Crowne, 1959; League, 1963; Zwillinger, 1964; MacBride & Tuddenham, 1965). Streufert (1965) has shown that subjects who believe that non-yielding will result in rejection by the group, conform more than those who do not hold this belief. Fontana (1964), has shown that self-evaluation rises with group acceptance and lowers with group rejection. These studies then, suggest that conformity is motivated by a desire to raise one's feelings of self-worth and personal adequacy by being accepted by a group. These are the dynamics that were proposed to underly the conformity that was hypothesized to be found among LSD users. The bases for this proposition are provided by Erikson's theory concerning the identity cycle, and by certain observations of LSD users reported by Blum (1964).

According to Erikson (1959), identification may be defined as a mechanism in which an individual acquires an increased feeling of self-

worth by taking on the habits, values, attitudes, or mannerisms of another person or institution. Erikson says that soon after the infant recognizes the existence of his own ego, he starts to build his "ego identity" through identification with his parents. Among other things, ego-identity involves "a conscious sense of individual identity", and "an inner solidarity with a group's ideals and identity" (Erikson, 1959; p. 102). The process of building one's ego identity through identification continues through childhood and reaches a culmination at the end of adolescence in what Erikson calls the "identity crisis".

One who undergoes a normal or undisturbed identity crises will emerge from adolescence with a consolidated ego-identity, and will become a mature, self-directed adult. One who undergoes a disturbed identity crisis will not develop a consolidated ego-identity, and will not so readily become a mature, self-directed adult. Instead, such an individual will, in an emotional sense, remain at the level of adolescence, while chronologically he becomes an adult. Such individuals, not possessing egos which they experience as sufficient to meet the demands of post-adolescent life, will have a continuing propensity to use identification to enhance their feelings of adequacy or worth. It is this process of identification that the present author believes to be operating when an individual yields to perceived group expectations; that is, when he becomes a conformist.

Erikson stresses the importance of the community's recognition of the individual's existence and worth during early identity formation. He

says the community is responsible for engendering in the individual those feelings of self-worth that he argues are "entirely indispensable support for the ego in the task of adolescence" (p. 111). If an individual's disturbed identity crisis is due to the absence of the appropriate community response to the individual, it is to be expected that the individual will choose not to identify with, and conform to society in an effort to maintain his feelings of worth. It is more likely that he will express aggressive and hostile feelings toward society, and attempt to enhance his feelings of worth by identifying with, and conforming to a socially deviant group.

A second way in which an individual who lacks a consolidated ego-identity might attempt to raise his feeling of adequacy would be by the mechanism of introjection. Introjection is a primitive form of identification, in which an individual internalizes some external object (e. g. LSD) or event in an effort to take on the value he perceives to be inherent in that object or event.

Blum (1964) has reported some observations of LSD users which at first appear to be contradictory, but become consistent if the LSD user is thought of as an individual who: 1) did not emerge from adolescence with a consolidated ego-identity; 2) finds it unacceptable to himself to maintain his feelings of worth by conforming to, and identifying with society; and 3) is thus attempting to establish his identity and worth by conforming to a socially deviant group. First Blum reports that LSD users describe themselves as self-directed people,

free from external pressure. Second, he reports that LSD users collect in very rigid groups which are extremely ethnocentric, maintain rigid standards for inclusion, and place strong pressure on their members to conform to group demands and group philosophy. These two observations suggest that, in terms of the Willis model, LSD users describe themselves as "independents" but that their behavior, at least in reference to their own group, is typical of that of conformists, in that they appear to identify with and conform to perceived group expectations. Third, Blum reports that most LSD users are ardent proselytizers of the drug. This suggests that LSD users have introjected their drug which has gained a notorious reputation, and are attempting to enhance their own self-acceptance, by expanding the acceptance of the drug.

Blum's fourth observation is that the ethnocentric LSD-using groups develop what he calls "we-they" thinking in regard to users and non-users. Non-users are called "squares" and described in a variety of derogatory terms. This suggests that LSD users do express hostile or aggressive feelings toward society, or in fact, to anyone who is not a member of their socially deviant group.

To review, it is inferred from Blum's report that LSD users identify with a socially deviant group, express hostile and aggressive feelings toward society, and utilize introjection in an effort to establish their feelings of worth. It thus appears reasonable that LSD users are individuals who have undergone a disturbed identity crisis, and that the community did not engender in them those feelings of worth that were

needed to undergo the task of adolescence. One additional observation helps to explain why it is believed that such personalities will be particularly receptive to the use of LSD. Erikson reports that the adolescent's ego development demands a great deal of experimentation in fantasy and introspection. As mentioned, one who does not develop a consolidated ego-identity in adolescence remains at the emotional level of an adolescent while he is becoming an adult. The ego of such an individual should, therefore, experience a continuing need for experimentation in fantasy and introspection. Blum's report that the effects of LSD facilitate such experimentation provides another fact which is congruent with the hypothesized dynamics of the LSD user.

For these reasons the present investigation hypothesized that LSD users would be above average in their tendency to conform, but as they would find this tendency unacceptable to themselves, they would manifest it in the form of anti-conformity. It was also hypothesized that when they were in the presence of other LSD users, their tendency to conform would be manifested, i.e., it was expected that when LSD users were with a socially deviant group of individuals, who expressed hostile feelings toward society, and with whom they identified, they would stop reacting against their tendency to conform, and a high rate of conformity would be manifested. It was further hypothesized that, as they found the tendency to conform unacceptable, they would describe themselves as extremely independent on a ques-

tionnaire which was ostensibly face valid. Two experimental measures were used to test these hypotheses: the Asch situation, which measures conformity by asking subjects to estimate the lengths of lines after being confronted by erroneous judgments from confederate subjects; and the Barron's Independence of Judgment Test. Barron found that high scorers on this test yielded infrequently in the Asch situation, while low scorers yielded more frequently.

The Asch situation was used to measure conformity as follows: one half of a group of LSD users was placed in a group in which the confederates were college students, who were not LSD users, and who did not belong to a fraternity (hereafter referred to as "normal" subjects). The other half was placed in a group in which the confederates were other LSD users with whom they were acquainted. The above theory concerning the dynamics of LSD users predicted that the normal confederates would elicit anti-conformity from the LSD users, and therefore, that the group of LSD users placed with them would produce a sub-normal rate of conformity. It also predicted that the LSD confederates would elicit conformity from the LSD users, and therefore, that the LSD users placed with them would produce an above normal rate of conformity.

A reference group theory of conformity suggests that individuals conform when with members of their reference group, and do not conform when not with members of their reference group. As this theory would

make the same predictions, it was considered essential to use additional groups to control for the reference group effect. Thus, one-half of a group of fraternity members was placed in the Asch situation with "normal" confederates, while the other half was placed with confederates from their fraternity. Anti-conformity for the LSD user was then defined as the production of a conformity response rate, which was lower than that produced by a fraternity member when each was placed with normal confederates. Conformity for the LSD user was defined as the production of a conformity rate which was higher than that produced by a fraternity member when each was placed with confederates from his own reference group.

In review, three specific experimental hypotheses were tested:

I) LSD users would produce fewer conforming responses than fraternity members when both were placed in a group with normal college confederates; II) LSD users would produce more conforming responses than fraternity members when each was placed with confederates from his own reference group; and III) LSD users would score significantly higher than non-LSD users on the Barron's test.

METHOD

Subjects

The subjects used in this study may be divided into two categories: critical subjects, whose conformity rates were measured in the Asch situation; and confederates, who made up the groups to which the critical subjects were expected to conform. Four types of subjects were used: 1) LSD users; 2) fraternity members; 3) "normal" college students, i.e., individuals who were neither fraternity members, nor LSD users; and 4) LSD imposters, i.e., individuals who described themselves as LSD users. It was considered essential to use LSD imposters for one part of the study to protect the identity of real LSD users. All subjects were male. A total of 80 subjects was run in the Asch situation, each was paid \$1.50 for the participation in the study. The four LSD confederates were paid (each) \$9.00 for their six hours of participation. The four fraternity confederates were each paid \$4.50 for their three hours of participation. In addition 28 "normal" subjects from an Introductory Psychology course were given the Barron's Independence of Judgment Test.

Apparatus

The apparatus for the experiment consisted of two sets of

36 cards. Each set was identical to that used by Asch in his original experiments on conformity, and was described in detail by him (Asch, 1956). The 36 cards were divided into 18 pairs; on one of each pair was a standard line, on the other there were three comparison lines. Appendix A describes in detail the lines on the 18 pairs of cards.

The Barron's Independence of Judgment Test (Barron, 1953) was used to test the third hypothesis. The items for this test may be found in Appendix B.

Procedure

The procedure used for measuring conformity was identical to that described by Asch (1956). Briefly, this procedure consisted of presenting the 18 sets of lines to groups of five subjects, and asking each subject to express, orally, which of the three comparison lines he felt was equal in length to the standard line. Unknown to the critical subject of the procedure, four of the subjects, those who expressed their choice first, second, third, and fifth, were confederates of the experimenter and had previously agreed to give unanimous and erroneous judgments on 12 of 18 trials. The measure of conformity was the number of times the critical subject agreed with the erroneous judgment of the majority.

This procedure was carried out for the six groups summarized in Table 1. In Group I, critical subjects (N = 12) were LSD users and confederates were normal college students. This group was employed to

test the hypothesis that LSD users tend to anti-conform to norms established by normal college students. In Group II, the critical subjects (N = 15) were fraternity members, and the confederates were the same normal college students used in Group I. Group II was used to establish a baseline from which the anti-conformity hypothesized to be found in Group I could be measured. In Group III both critical subjects (N = 12) and confederates were LSD users. This group was used to obtain a measure of the LSD users' tendency to conform to norms established by his own reference group. In Group IV, critical subjects (N = 15) were members of a college fraternity and the confederates were their fraternity brothers. This group was used to establish a baseline to which the conformity hypothesized to be found in Group III could be compared.

As an effort was made to equate Groups I and II, and also Groups III and IV in terms of reference group status, and in terms of familiarity of the critical subject with the confederate; the differences in conformity rates found between Groups I and II and between Groups III and IV should be attributable to the fact that one group in each pair consisted of LSD users, and the other consisted of fraternity members.

In Group V, critical subjects (N = 13) were fraternity members, and confederates were LSD imposters, i.e., individuals who posed as LSD users. When the critical subject entered the experimental room, three confederates were already present. The third, whom the critical subject was seated next to, had a paperback book with him with the

TABLE 1.--Description of the six experimental groups.

Group	Critical <u>Ss</u>	Sample Size	Confederates	Test of	Familiarity	Ref. Group
I	LSD Users	12	"normal college students"	Anti- conformity	low	neg.
II	Fraternity members	15	"normal college students"	Control group for Group I	low	neg.
III	LSD Users	12	LSD Users	Conformity in LSD users	high	pos.
IV	Fraternity members	15	Fraternity brothers	Control group for Group III	high	pos.
V	Fraternity informed	13	LSD impos- ters	Fraternity members anti- conforming to LSD users	low	neg.
VI	Fraternity non-informed	14	LSD Users	Fraternity members anti- conforming to LSD users is it to perceivable trait of LSD users	low	neg.

title L. S. D. on the cover. He was discussing this book with the first and second confederates as the critical subject took his seat. After about thirty seconds, the fifth confederate entered the room and was directed to his seat. As he took his seat, the third confederate turned to the critical subject and asked him if he had ever taken LSD. None of the critical subjects said that he had. After the critical subject responded, the third confederate said in a somewhat anxious voice, "This is really crazy. . .", and then leaned toward the fifth confederate and asked if he had ever taken LSD. When the fifth replied that he had, the third said, "Oh no, this is really too much. I wonder what this guy (gesturing toward the door outside where the experimenter was still standing) would think if he knew four out of five of us have taken LSD." At this time, the experimenter entered the room and initiated the Asch procedure.

In Group VI, the critical subjects were fraternity members, and the confederates were real LSD users. Groups V and VI were included to aid in the interpretation of Groups I and II. Group II was used as a baseline from which to measure the anti-conformity hypothesized to be found in Group I. Groups V and VI determined if fraternity members would anti-conform more to LSD users than to normal college students. Group V was intended to determine if fraternity members would anti-conform more when they obtained the cognition that the other members of the group were LSD users. Group VI was used to determine if fraternity members would anti-conform more to LSD users than to normals because of some perceivable characteristic of LSD users.

Specific Details for Selection and Instruction of Subjects, and for Administration of the Experimental Measures

A. The selection and instruction of confederates.--As mentioned, LSD users are believed to have hostile feelings directed toward society. As psychological research is a part of that society toward which they are believed to feel hostile, and as LSD confederates were being asked to deceive their friends in order to assist this research, a somewhat unorthodox method was necessitated for the selection of confederate subjects. The LSD confederates consisted of one individual who served as a liaison between the LSD-using group and the experimenter, plus three individuals selected by him. The fraternity confederate consisted of one individual who acted as a liaison between the experimenter and the fraternity, and three of his fraternity brothers selected by him. The normal college confederates consisted of one volunteer from an Introductory Psychology course, and three other members of the course whom the volunteer selected. The volunteer was not a fraternity member, and was told that the friends he selected must not be fraternity members.

Confederates met prior to the testing session. During this time, the perceptual task was explained to them, and they were asked to memorize the erroneous answers they were to give. The first subject to report was given a small, easily concealable card with the erroneous answers on it which he could consult if his memory failed. Other confederates were to follow the lead of the first confederate. Confederates were asked to announce their judgments clearly and firmly, not

to argue with the critical subject, or to act surprised at his judgments. In general, they were told to remain impersonal. Confederates were told that the perceptual task was designed to measure "interpersonal responsivity", a particularly desirable personality trait on which some of the groups to be used in the experiment were believed to rate highly. They were told that the group of subjects with whom they were participating was one of the groups expected to rate highly on this trait. They were told that in order to get an accurate measure of this trait, their cooperation in giving erroneous judgments was needed. This deception of confederates was felt necessary to assure that LSD users would be willing to deceive their friends. All confederates readily accepted the explanation. None expressed any reticence about giving erroneous judgments.

B. Recruitment of critical subjects.--Recruitment of LSD critical subjects was done by a member of the LSD-using group who was serving as liaison for the experimenter. He recruited only those subjects who had taken LSD at least twice in the current academic year (nine months). He assured these subjects that anonymity would be guaranteed. Recruitment of fraternity critical subjects was done by the fraternity members who were serving as liaisons between the experimenter and the two fraternities used.

C. Administration of the Barron's Independence of Judgment Test and the perceptual task.--Subjects were run on three different days. On

the first day, subjects of Groups II and IV were run simultaneously, on the second, subjects of Groups V and VI were run simultaneously, on the third, subjects of Groups I and III were run simultaneously. One half of the subjects to be run on a given day reported at one time, the other half reported one hour and ten minutes later. As subjects reported for the experiment they were randomly assigned to one of two rooms where they were asked to sit quietly and wait for the experiment. Two rooms were used so that subjects could not see all the other subjects who were waiting for the experiment.

Critical subjects were then unsystematically selected from the room by one of two escorts, and then taken to the room where the perceptual task was administered. When arriving at this room, the experimenter, who was waiting at the door of the room said to the escort, "Okay, good, that's four, now will you please get a fifth subject from the other room." The experimenter then turned to the critical subject and instructed him to take the fourth of five chairs; the first three already being occupied by the first three confederates. Shortly thereafter, the escort arrived with the fourth confederate who was asked to take the fifth chair.

The experimenters, who were naive graduate students (i.e., they did not know the investigator's hypothesis) then began the experiment by reading these instructions:

1

This is a task involving the discrimination of length of lines. Before you is a pair of cards. On your left is a card with one line. The card at your right has three lines of differing lengths, they are numbered 1, 2, and 3 in order. One of the lines at the right is equal to the standard at the left. You are to decide in each case which is the equal line. You will state your judgment in terms of the number of the line. There will be 18 comparisons in all. As the number of comparisons is few and the group small, I will call upon each of you in turn to announce your judgment which I shall record here on a prepared form. Please be as accurate as possible. Suppose you give me your answers in order, starting at the right and proceeding to the left. (After Asch, 1956)

After the completion of the 18 trials, each of the five subjects was asked to report to a different room for the next part of the experiment. The critical subject, upon reporting to his room, found the present investigator, who administered the post-experimental interview. After completion of this interview, he was asked to report to another room where he was given the Barron's test. No subject who reported for the experiment at the earlier of the two times on a given day was allowed to leave this last room until one hour and fifteen minutes after the experiment had begun. This assured that no subject who came at the earlier time would have a chance to talk to those who were coming at the later time.

D. The Post-experimental interview.--As Groups I, II, V, and VI made the assumption that the critical subjects did not know the confederates, it was felt necessary to test this assumption. Subjects of these groups were given a questionnaire asking them how well they knew

each of the confederates. They were asked to indicate how well they knew each of the four confederates by placing the appropriate letter, corresponding to one of four statements below, in the blank that was provided for each confederate. (See Appendix C for the questionnaire.) The four statements were: A) I did not know this person at all; B) I am vaguely familiar with this person; C) I know him fairly well; D) I know this person very well.

Subjects of Group V were exposed to a role-playing situation designed to convince them that the confederates of this group were LSD users. During the interview, the interviewer tried to elicit information from the subject concerning the effectiveness of this role-playing. The interviewer and the subject then, independently, filled out a questionnaire rating the extent of the subject's belief, while in the Asch situation, that the confederates were LSD users. The ratings were made on the following seven-point scale:

-3	----	-2	----	-1	0	1	----	2	----	3
I strongly disbelieved they took LSD	I slightly disbelieved they took LSD	I did not believe nor disbelieve they took LSD	I slightly believed they took LSD	I strongly believed they took LSD						

In cases where the interviewer and subject disagreed, the average rating was used for the analysis.

After the questionnaires were given, the fact that the subject was deceived was carefully explained to him. He was told that the other members of the group had met previously and had agreed to give

erroneous judgments on 12 of 18 sets of lines. He was told that the experiment was designed to test a very old theory in psychology concerning perception and responsivity of individuals to other members of a group. They were told that the theory predicts that if, in a group situation, an individual is confronted with discrepant perceptions he will, in most cases, abandon his perception if the other members of the group are individuals whom he knows, and is responsive to, but will tend to maintain his perception if he does not know the other members of the group.

RESULTS AND DISCUSSION

1. Results and Discussion Directly Relevant to the Experimental Hypotheses.

1.1 Check on manipulations.--In Groups I, II, V, and VI it was assumed that the critical subjects did not know the confederates. The results of the questionnaire (see Appendix C) used to test this assumption are presented in Table 2. This table shows that 191 of 216 possible ratings indicate no familiarity with the confederates, while an additional 15 indicate only a vague familiarity with the confederates. These results are interpreted as indicating that the assumption of non-familiarity was met for these four groups.

Critical subjects of Group V were exposed to a role-playing situation designed to convince them that the confederates of this group were LSD users. Table 3 presents the results of the questionnaire (see example on page 16) used to assess the extent to which the critical subjects of this group believed the confederates were LSD users. The extent of each subject's belief was assessed by averaging his self rating with the rating of the interviewer. A high consistency between subject and interviewer ratings was indicated by the fact that the interviewer's rating was identical to the subject's in 9 of 13 cases;

TABLE 2.--Familiarity of the critical subjects with the confederates for Groups I, II, V, and VI.

Group	N	Possible Number of Ratings	Number of A's	Number of B's	Number of C's	Number of D's
I	12	48	41	5	1	1
II	15	60	50	5	5	0
V	13	52	50	2	0	0
VI	14	56	50	3	2	1
TOTAL	54	216	191	15	8	2

TABLE 3.--The extent to which critical subjects of Group V believed the confederates were LSD users.

Subject Number	Subject's Rating	Interviewer's Rating	Average Rating
1*	-3	-1	-2
2*	-1	1	0
3	-3	-3	-3
4	-1	-1	-1
5	0	0	0
6*	-1	1	0
7	1	1	1
8	1	1	1
9	2	2	2
10	1	1	1
11	1	1	1
12	1	1	1
13*	-1	1	0
	$\Sigma X = -3$ $\bar{X} = -.23$	$\Sigma X = 5$ $\bar{X} = .38$	$\Sigma X = 1$ $\bar{X} = .08$

*Subjects for which interviewer and subject rating differed

it was further indicated by a significant correlation between subject and interviewer ratings (Spearman's $r_s = .80$, $p < .01$ with $n = 13$).

The average of subject and interviewer ratings suggests that 6 subjects believed the confederates were LSD users ($\bar{X} = 1.16$), 4 remained neutral in their belief, and 3 disbelieved that the confederates were LSD users ($\bar{X} = -2.0$). The mean rating for all 13 subjects was .08. The ratings indicate that only 3 of 13 subjects were more than slightly influenced by the role-playing situation, while the other 10 were influenced only slightly or not at all. This data then suggests that the role-playing of the LSD imposters was neither particularly convincing, nor nonconvincing. The information obtained in the interviews with these subjects was consistent with this interpretation (see further discussion in Section 2.4).

1.2 Hypothesis I.--The mean yielding rates for the six groups tested in the Asch situation are presented in Figure 1. The results of the Asch test were analyzed using the Wilcoxon Matched Pairs Signed Ranks Test, with subjects matched for age. (As conformity was believed to be related to ego identity, and as ego identity was believed to continue to develop somewhat in post-adolescent life, it was reasoned that a subject's age may be related to his tendency to conform.) Figure 1 indicates that Group I produced an average of 1.11 yielding responses while Group II produced an average of 2.77 yielding responses. This mean difference of 1.66 was statistically significant ($p < .05$, one-

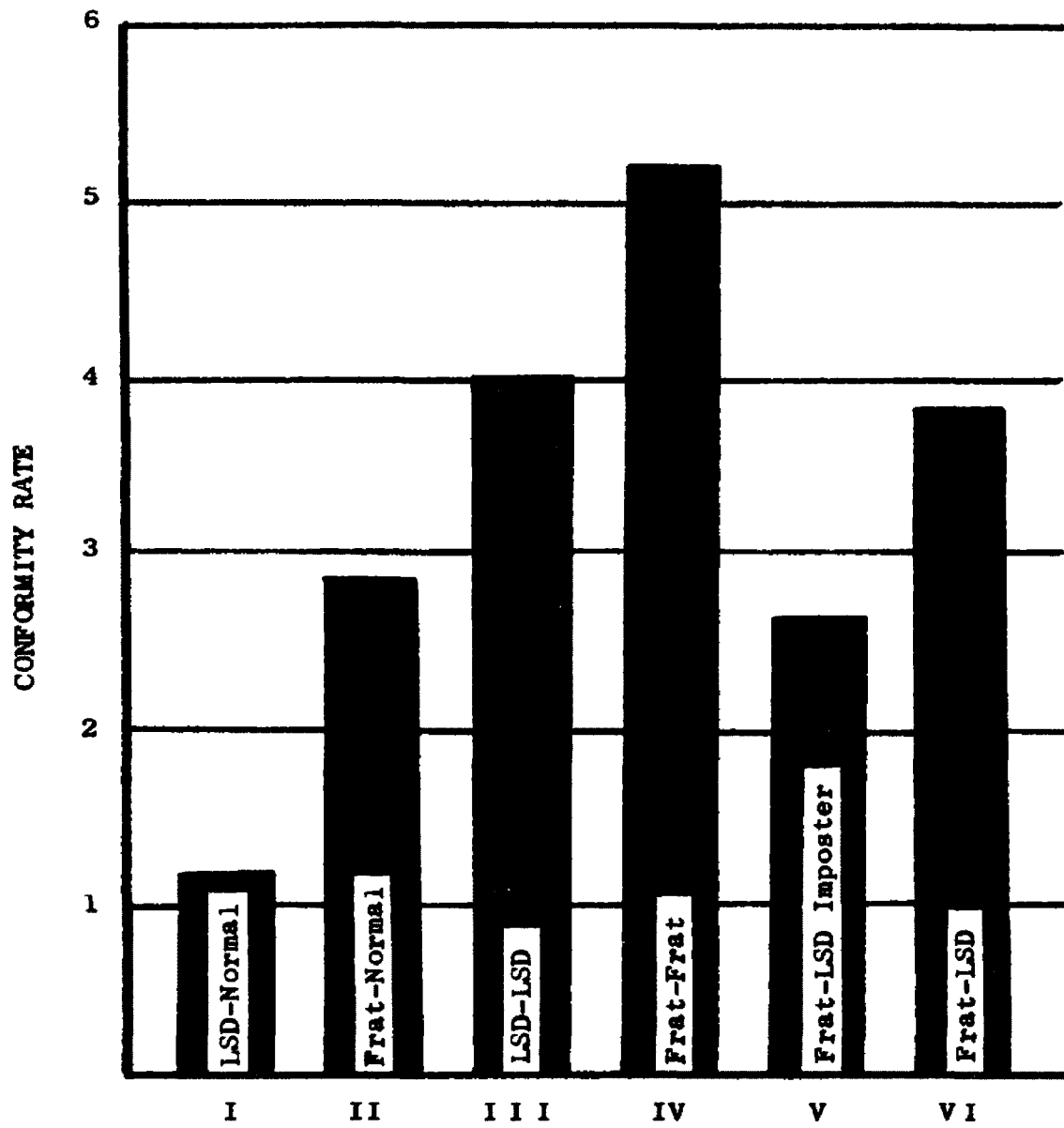


Fig. 1.--The yielding rates for the six experimental groups.

tailed test with $n = 9$ pairs¹), thereby supporting the first experimental hypothesis that LSD users would produce fewer conforming responses than fraternity members when each was placed with normal college confederates.

1.3 Hypothesis II.--Group III produced an average of 4.0 yielding responses, and Group IV, an average of 5.21 yielding responses. This mean difference of 1.21 approached statistical significance ($p = .073$, one-tailed test with $n = 9$ pairs¹), but this difference was in the direction opposite to that predicted. Therefore the second experimental hypothesis, that LSD users would produce more conforming responses than fraternity members, when each was placed with confederates from his own reference group, was not supported, but there was a strong tendency for these LSD users to do the opposite, i.e., they tended to conform less under this condition as well as when placed with normal confederates. The results of the Asch situation suggest that LSD users are not individuals with anti-conforming personalities, but are individuals who are more independent in making judgments than are fraternity members. (To be discussed further in Section 2.1)

¹Three subjects from Group I, three from Group III, and one from Group IV were dropped from the analysis because they reported that they knew they were being deceived while in the Asch situation. Where comparisons were made between the Fraternity and LSD groups, the LSD users were matched with the nine eldest fraternity members because the LSD-using group, as a whole, was older than the fraternity group.

1.4 Hypothesis III.--The results of the Barron's test are presented in Table 4. LSD users obtained a mean Barron's score of 17.47; normal college students, a mean of 13.47; and fraternity members, a mean of 13.18. These results were analyzed using a t-test, and it was found that LSD users had significantly higher Barron's scores than either of the other groups ($t(49) = 5.17$, $p < .01$, one-tailed test; $t(44) = 4.82$, $p < .01$, one-tailed test). Thus the third experimental hypothesis, that LSD users would score significantly higher than non-LSD users on the Barron's test, was supported. These results were not, however, interpreted as support for the hypothesis that LSD users are anti-conformists. They were found to be consistent with Blum's observation that LSD users describe themselves as independent. They are also consistent with Barron's finding that those who yielded less frequently in the Asch situation obtained higher scores on the Barron's test. The results of the Barron's test are thus related to the findings in the Asch situation in that both indicate LSD users manifest more independence of judgment than fraternity members.

2. Additional Results and Discussion.

2.1 A possible explanation of the results.--At this point a paradox seems to have developed. Certain observations of Blum were reviewed which led to the hypothesis that LSD users were individuals who, because of the lack of a consolidated ego-identity, had emerged from adolescence with a strong tendency to be influenced by perceived group

TABLE 4.--The results of the Barron's Independence of Judgment Test.

Group	N	Mean	Standard Deviation
Fraternity members	28*	13.18	2.69
Normal College Students	28	13.47	3.22
LSD Users	23	17.47	2.21

*Two subjects who answered both true and false for some questions or did not answer some questions, were eliminated from the analyses

expectations. The results of the study, however, indicate that LSD users manifested more independence of judgment than fraternity members while judging the length of lines in the Asch situation.

In developing the hypothesis of this study it was suggested that LSD users would attempt to enhance their self-esteem by identifying with an LSD using group, and would therefore conform to the group's erroneous judgments of the lengths of lines. One important factor, however, was overlooked; that is, that LSD-using groups place strong pressure upon their members to conform to the group's predominant values, one of which is independence (Blum). When the LSD user was in the Asch situation with LSD confederates, it is possible that he felt pressure from two different perceived group expectations. First, he may have felt that the group expected him to agree with their judgments, and second, he may have felt pressure to manifest independence while making the judgments. As independence is an important everyday value of LSD using groups, the subjects very likely felt more pressure to manifest independence than to agree with judgments of the lengths of lines, a topic which was of little importance outside the experimental situation. To review, it is suggested that LSD users were attempting to enhance their self-esteem by conforming to group expectations, but that they obtain a greater increment in self-esteem by conforming to the group's expectation of independence than by conforming to their erroneous judgments of the length of lines.

2.2 Variance measures.--Certain additional findings of this study are relevant to the findings of Blum. Blum reported that there is pressure in LSD-using groups to conform to group pressure, and that members of an LSD-using group are extremely consistent in their behavior and in their philosophy. Comparison of the variances of the two experimental measures (see Table 5) for fraternity members and LSD users produces results that are consistent with Blum's report. Table 5 shows that the LSD-using group had less variance than the fraternity group on the Barron's test, and under both conditions in the Asch situation. The difference was statistically significant only for those groups in which the critical subjects were placed with normal confederates ($F(8, 14) = 10.5, p < .01$, one-tailed test), and this difference was probably significant only because of a "floor effect", i.e., the LSD users produced such a low rate of conformity that it was impossible for much variation to occur in their yielding rates. This trend toward smaller variance may be the result of the rigid selection procedures found in LSD-using groups (see Introduction) as well as the pressure found within the groups to conform to group values.

2.3 Detection of deception in the Asch situation.--Six of 24 LSD-using subjects were able to detect that they were being deceived in the Asch situation, only one of 57 fraternity members was able to do so. This difference was statistically significant ($\chi^2(1) = 11.5, p < .01$, one-tailed test). As one-half of the six detectors were in the LSD confed-

TABLE 5.--Comparison of the variance for the two experimental measures for fraternity members and LSD users.

	Asch with normal confederates	Asch with con- federate from subjects' own reference group	Barron Test
Fraternity	9.5	15.0	7.26
LSD Users	.9	10.7	4.90

erate group, and one-half in the normal confederate group, this detection may not be attributed to any characteristics of the LSD confederates.

The fact that some LSD users were able to detect the deception in the Asch situation is consistent with Blum's observation that they are alienated from society, and feel hostile toward it. This has probably resulted in the development of a mistrustful and critical attitude toward society and all its aspects, such as this experiment. Many LSD users probably entered the experiment with a mistrustful and critical orientation and were thus prone to critically analyze the experiment as they participated in it. As this orientation would not be found among fraternity members, it is to be expected that LSD users would detect the deception significantly more often than fraternity members.

2.4 Groups V and VI.--The subjects of Group V produced a mean of 2.61 yielding responses. As mentioned earlier (see Section 1.1 of Results and Discussion), the questionnaire given in the post-experimental interview indicated that the subjects of this group were not particularly influenced by the role-playing of the confederates. This rate of 2.61 yielding responses is almost identical to the rate of 2.77 produced by fraternity members when with normal confederates (Group II). This again suggests that the group's behavior was not influenced by the role-playing situation, it indicates instead, that they responded to the LSD confederates just as if they were normal college students.

Subjects of Group VI produced a mean of 3.77 yielding responses. Thus fraternity members of this group yielded more to LSD users than the fraternity members of Group II did to normal confederates ($\bar{X} = 2.77$ yielding responses), although the difference was not statistically significant (Wilcoxon $T = 10.0$, $p < .25$, one-tailed test with $n = 14$ pairs). As mentioned, conformity is believed to be motivated by a desire for an increased feeling of self worth that results from acceptance by a group. Festinger's social comparison theory (1950) suggests that an individual's need for affiliation rises when fear has been aroused. Darley (1966) has shown that yielding to group pressure increases when fear has been aroused. MacBride and Tuddenham (1965) have shown that experimentally-induced decrements in self-confidence also result in an increase in conformity. The finding that fraternity members yielded more to the pressure of LSD users than to the pressure of normals then, suggests the possibility that placing a fraternity member alone in a group of LSD users may lower his self-confidence, arouse fear, or perhaps do both.

2.5 Implications of the study for a reference group theory of conformity.--The LSD users produced a mean yielding rate of 4.0 when with LSD confederates (Group III), and a mean yielding rate of 1.11 when with normal confederates (Group I). This mean difference of 2.89 was statistically significant at the $p < .04$ level of confidence (one-tailed Wilcoxon Test, $n = 9$ pairs). Fraternity members produced a

mean of 5.21 yielding responses when with confederates from their own fraternity (Group IV) and a mean of 2.77 yielding responses when with normal confederates (Group II). This mean difference of 2.44 was statistically significant at the $p < .05$ level of confidence (one-tailed Wilcoxon Test, $n = 14$ pairs). These results lend support to reference group theories of conformity, such as Festinger's group cohesion theory (1950), which suggests that the more cohesive a group, the greater will be its influence upon its members. Certain past researchers (Moran, 1965; Downing, 1958) did not find support for Festinger's group cohesion theory, however, these researchers attempted to experimentally produce high and low cohesion groups out of strangers who volunteered for an experiment. While they did find significant differences in cohesion between their high and low groups, these differences were probably not as great as the differences in the present experiment, in which real groups, rather than "experimental collectivities" were used. The specific results of this study suggest that a group which actually serves as a positive reference group for an individual will have more influence upon that individual's judgments than will a group of strangers.

The results of Groups I, II, and VI, however, suggest that the effect of influence from a negative reference group is less clear. Both LSD users and normal confederates are believed to constitute negative reference groups for fraternity members, however, LSD users are believed to be an extremely negative reference group, while

normals are only slightly negative. Comments obtained in the post-experimental interviews, such as, "Well, those other guys in there, they were sort of ... you know, hippies, so I didn't pay much attention to what they said", support the belief that LSD users constitute an extremely negative reference group for fraternity members. Likewise, it is believed that the normal confederates in Group I were an extremely negative reference group for the LSD-using critical subjects of this group. As mentioned, fraternity members produced a higher rate of yielding when with the extremely negative reference group (LSD confederates--Group II) than when they were with the slightly negative reference group (normal confederates--Group VI), however, the difference was not statistically significant. Fraternity members produced higher rates of conformity when placed in either highly positive, or highly negative reference groups than when placed in a slightly negative reference group.

When LSD users were placed with an extremely negative reference group (normal confederates--Group I) they produced a very low yielding rate. Comparison of fraternity members and LSD users indicates that these two groups have quite different reactions to extremely negative reference groups, suggesting the possibility that one's reaction to an extremely negative reference group is determined by interpersonal characteristics. One possible explanation of the difference in reactions found here, is that fraternity members are very often in the context of

a positive reference group, and therefore when they are placed in a negative reference group, fear is aroused, and they try to alleviate this fear by conforming to the group (see Section 2.4). LSD users, on the other hand, are used to being in the context of a negative reference group (they define all non-LSD users as "squares"), therefore when they were placed in the context of a negative reference group for purposes of this experiment, it was a normal situation for them, and they reacted in their usual way, which is to disassociate themselves from the group.

SUMMARY

The purpose of the present study was to investigate the relationship between a personality trait called conformity (defined as the tendency to yield to group pressure in a judgment situation), and the use of LSD. The dynamics underlying conformity were reviewed in terms of past research and in terms of Erikson's theory of the identity cycle. It was reasoned that the basic, underlying motivation for conformity is a desire to enhance one's self-worth by identification with the group to which one conforms. It was also reasoned that those who underwent a disturbed identity crisis would not develop a consolidated ego-identity and would thus continue to experience a tendency to utilize identification in post-adolescent life. Certain observations of LSD users made by Blum were reported which led to the inference that LSD users were individuals who had a disturbed identity crisis, and led to the general hypothesis that LSD users would have a strong tendency to conform.

Conformity was operationally defined as the tendency to yield to group expectations in the Asch judgment situation. It was brought out that behavior which is the direct opposite of group expectations was also determined by group expectations; such behavior was called anti-

conformity. It was then reasoned that LSD users would react against their tendency to conform and manifest anti-conformity in those instances in which they were not with members of their own identity group. (The reasons for this were discussed in terms of Erikson's theory concerning the identity cycle).

Three specific experimental hypotheses were tested to test this major hypothesis. The first two were tested by comparing LSD users and fraternity members in the Asch situation; the third was tested by comparing these two groups on the Barron's Independence of Judgment Test. The specific hypotheses were: 1) LSD users would produce fewer conforming responses than fraternity members when both were placed in a group with normal confederates; 2) LSD users would produce more conforming responses than fraternity members when each was placed with confederates from his own reference group; and 3) LSD users would score significantly higher than non-LSD users on the Barron's Test. The first hypothesis was intended to demonstrate that LSD users have a tendency toward anti-conformity. The second was intended to demonstrate that underlying this tendency to anti-conform was a strong tendency to conform. The third was intended to show that LSD users describe themselves as independent, which, if found in conjunction with the conformity expected under hypothesis 2, would be indicative of a tendency toward anti-conformity in LSD users. The first and third hypotheses were supported, however, the second was in the direction opposite to that predicted.

Thus the hypothesis that LSD users would conform more than fraternity members when each was in a group with members of his own reference group was not supported. Under all conditions then, LSD users manifested more independence of judgment than fraternity members. It was suggested that this manifestation of independence might be due to the fact that LSD users found it more important to conform to their group's predominant values, such as independence, than to conform in their judgments concerning the lengths of lines.

Some implications of the results for a reference group theory of conformity were also discussed.

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APPENDIX A

Description of 18 sets of lines.

Trial	Length of Standard (in inches)	Length of comparison lines (in inches)			Majority error (in inches)
		#1	#2	#3	
1	10	8 3/4	10	8	0
2	2	2	1	1 1/2	0
3	3	3 3/4	4 1/4	3	3/4
4	5	5	4	6 1/2	-1
5	4	3	5	4	0
6	3	3 3/4	4 1/4	3	1 1/4
7	8	6 1/4	8	6 3/4	1 1/4
8	5	5	4	6 1/2	1 1/2
9	8	6 1/4	8	6 3/4	1 3/4
10	10	8 3/4	10	8	0
11	2	2	1	1 1/2	0
12	3	3 3/4	4 1/4	3	3/4
13	5	5	4	6 1/2	-1
14	4	3	5	4	0
15	3	3 3/4	4 1/4	3	1 1/4
16	8	6 1/4	8	6 3/4	1 1/4
17	5	5	4	6 1/2	1 1/2
18	8	6 1/4	8	6 3/4	-1 3/4

APPENDIX B

- T F 1. What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.
- T F 2. Some of my friends think that my ideas are impractical, if not a bit wild.
- T F 3. Kindness and generosity are the most important qualities for a wife to have.
- T F 4. I have seen some things so sad that I almost felt like crying.
- T F 5. I don't understand how men in some European countries can be so demonstrative to one another.
- T F 6. I must admit that I would find it hard to have for a close friend a person whose manners or appearance made him somewhat repulsive, no matter how brilliant or kind he might be.
- T F 7. A person should not probe too deeply into his own and other people's feelings, but take things as they are.
- T F 8. I prefer team games to games in which one individual competes against another.
- T F 9. I could cut my moorings--quit my home, my family, and my friends--without suffering great regrets.
- T F 10. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.
- T F 11. I acquired a strong interest in intellectual and aesthetic matters from my mother.
- T F 12. Human nature being what it is, there will always be war and conflict.
- T F 13. I believe you should ignore other people's faults and make an effort to get along with almost everyone.
- T F 14. The best theory is the one that has the best practical applications.
- T F 15. I like to fool around with new ideas, even if they turn out later to be a total waste of time.
- T F 16. The unfinished and the imperfect often have greater appeal for me than the completed and polished.
- T F 17. I would rather have a few intense friendships than a great many friendly, but casual relationships.
- T F 18. Perfect balance is the essence of all good composition.
- T F 19. Science should have as much to say about moral values as religion does.
- T F 20. The happy person tends always to be poised, courteous, outgoing, and emotionally controlled.
- T F 21. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.
- T F 22. It is easy for me to take orders and do what I am told.

APPENDIX C

We would like to determine if you knew any of the other people who participated in the perceptual task with you, and if you did, how well you knew them. Please indicate how well you knew each person by placing the appropriate letter in the blank provided.

Place an A in the blank if you did not know the person at all; place a B in the blank if you were vaguely familiar with the person; place a C in the blank if you knew him fairly well; place a D in the blank if you feel you knew the person very well.

First person: _____

Second person: _____

Third person: _____

Fourth person: _____

Thank you!