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Sharon Donna London

A TACHISTOSCOPIC STUDY OF CONFLICT ABOUT AGGRESSION
AND DEPENDENCY IN ALCOHOLIC MEN

by

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By the example of the avid interest of those working with alcoholics to cooperate with this research, it is hoped that many more research attempts will be made to explore the numerous unresolved questions about alcoholism.

Sharon Donna London

April, 1969

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CHAPTER I

THE PROBLEM

The literature on the subject of alcoholism seems to be largely characterized by loosely controlled studies and many contradictory findings. Lack of methodological rigor has no doubt contributed to these apparently divergent results.

Hardly any of the studies sufficiently take into consideration the representativeness of the sample of alcoholics used nor factors that might be specific to the problems of alcoholism and for which adequate controls are required. These include: a) age, educational level, intelligence and socio-economic status; b) whether the alcoholics are inpatients, outpatients, in prison, or free; c) whether the alcoholics are sober at the time of study; and if sober, the duration of sobriety; d) whether withdrawal is completed; e) whether the alcoholic is actively interested in seeking help, the type of help he seeks and why; f) the length of the history of drinking; g) the diagnostic criteria of alcoholism; and h) the manner of selecting the alcoholics.

Another issue concerns the selection of adequate control groups. Many studies simply use an unselected sample of non-alcoholics from among a psychiatric population, college students, or other convenient group, without controlled for differences in educational and socio-economic backgrounds.

A third criticism of many published studies on alcoholism relates to the lack of theoretical rationale. Many are hardly more than clinical impressions or lists of observations or trait descriptions derived from test batteries. Theory testing is largely absent and when undertaken sometimes involves oversimplification of the theory. There are few double-blind studies and very little consideration is given to the role of experimenter bias. The present research is designed to take into account and to control for some of these deficiencies in previous studies.

An examination of the literature on alcoholism discloses that the role played by aggression in male alcoholism is one of the many unresolved issues. For instance, Menninger (1939) concluded that conflict over aggression is the major etiological factor in the development of alcoholism in males. While

Menninger, K. Man Against Himself, New York, N.Y.:
Harcourt, Brace & Co., 1939.

McCord and McCord (1960) concluded that conflict over dependency was the major etiological factor. Menninger (1939) believed that alcoholism was itself an indirect expression of aggression due to the inability of alcoholics to express aggression directly. But McCord and McCord (1960) reported that alcoholics are belligerent and show a "lack of inhibition in the area of aggression". Yet difficulty in expressing aggression in adult male alcoholics has been reported by Fox (1965), Zwerling and Rosenbaum (1959) and Mathias (1956).

McCord, M. & McCord, J., Origins of Alcoholism, Stanford University Press, 1960.

Menninger, K., op. cit.

Fox, R. Psychiatric aspects of alcoholism, Amer. J. Psychother., 1966, 19, 408-416.

Zwerling, I. & Rosenbaum, M., Alcohol addiction and personality. In S. Arieti (Ed.) American Handbook of Psychiatry, New York, N.Y.: Basic Books, 1959.

Mathias, R., An experimental investigation of the personality structure of chronic alcoholics, alcoholics anonymous, neurotic and normal groups. Dissertation, Univer. of Buffalo, Source of abstract: Diss. Abst., 1956, 16, 156-157.

Menninger (1939) and McCord and McCord (1960) based their conclusions upon observations of different populations and this may partially account for the discrepancy in their observations. Menninger (1939) studied a group of alcoholics that consisted largely of patients of upper socio-economic status who had received some psychoanalytic treatment, whereas McCord and McCord studied adolescents and adults of lower socio-economic status. Since members of different socio-economic classes may hold different attitudes towards expressing aggression, the socio-economic variable may be an important one to consider when studying conflicts over aggression in alcoholics. Also, according to Robins (1966) different etiological factors may be operative in different subtypes of alcoholics.

Another difficulty in interpreting the McCord and McCord (1960) findings stems from the lack of information about the conditions under which the acts of belligerence occurred, and the absence of information as to whether the subjects were sober when they were observed or not.

Menninger, K. op. cit.

McCord and McCord, op. cit.

Robins, L., Deviant Children Grown Up. Baltimore, Md.: Williams & Wilkins, 1966.

Attitudes toward both aggression and dependency appear to be related to sex role definitions in our culture. In our society, men are expected to be more aggressive and more independent than women; and women are expected to be more passive and more dependent than men. Accordingly, men will more frequently find themselves obliged to inhibit their dependency needs, while women are more likely to find themselves called upon to inhibit their aggressive impulses. Whenever, the behaviors, attitudes and feelings of a person do not accord with his social role expectations he finds himself in conflict. Kagan and Moss (1962) present data that support the expectation that conflict about dependency is characteristic of normal men, and that conflict about aggression is characteristic of normal women. Kagan and Moss proposed that this finding of differential conflict in men and women is related to the normal social role expectations they learned as a result of pressures upon them as children to learn sex-appropriate behaviors.

If Kagan and Moss (1962) are correct, normal men would be expected to have conflicts about dependency.

Kagan, J. & Moss, H., Birth To Maturity. New York, N.Y.: J. Wiley & Sons, 1962.

Thus the theory proposed by McCord and McCord (1960) of the etiological role of conflict over dependency in male alcoholics would not constitute a hypothesis which would differentiate the development of male alcoholism from the development of normal males. All men are expected to have dependency, conflicts.

Menninger's (1939) theoretical position, however, which identifies conflict over aggression as etiological in male alcoholism, does offer a possible dimension along which the development of male alcoholism might be differentiated from that of normal males. According to this hypothesis, male alcoholics would be expected to show more conflict over aggression than is normal for males.

Common observations suggest that in normal male subjects frustration ordinarily results in a tendency to act aggressively (Dollard, et. al., 1939) but that male alcoholics tend to react to frustration by ingesting alcohol. The inability to respond with an appropriate aggressive response to frustration may tend to perpetuate the drinking pattern. The hypothesis will be advanced that conflict over the expression of

McCord and McCord, op. cit.

Menninger, op. cit.

Dollard, J. et. al., Frustration and Aggression, New Haven, Conn.: Yale Univ. Press, 1939.

aggression in male alcoholics is intensified when they are in frustrating or stressful situations. The frustration is expected to intensify the conflict over aggression because it is expected to arouse aggressive response tendencies which are then reacted to with a greater tendency toward inhibition of the the aggressive response. Alcoholic men are expected to differ from normal males in that they will be expected to inhibit appropriate aggressive responses to frustration.

The inability to respond in an appropriately aggressive manner may cause male alcoholics to feel that they are not functioning in accordance with male role expectations of this society. Hence, the reports of distorted or inadequate masculine identification in male alcoholics reported in the literature (Laird, 1962; Parker, 1959; Meer and Amon, 1963) might possibly be related to conflict over aggression.

Laird, J., The comparison of female normals, psychiatric patients and alcoholics for sex drawn first. J. Clin. Psychol., 1962, 18, 473.

Parker, F., A comparison of the sex temperament of alcoholics and moderate drinkers, Amer. Sociol. Rev., 1959, 24, 366-374.

Meer, B. & Amon, A., Age-sex preference patterns of alcoholics and normals., Quart. J. Stud. Alcohol, 1963, 24, 417-431.

In the present research the hypothesis that male alcoholics show more conflict over aggression than normal males will be tested through a study of their responses to tachistoscopically-presented stimuli. The drawings of aggressive and dependent scenes, used in the Kagan and Moss (1962) study, appear especially relevant for the proposed study of such conflicts in male alcoholics. The present study is modeled upon the Kagan and Moss study with certain modifications which will be presented in the procedure section below.

Recognition thresholds to tachistoscopically-presented stimuli were used by Kagan and Moss as indicators of conflict, anxiety, and repression. The use of recognition thresholds as indicators of conflict is based upon the assumption that conflictful material arouses anxiety which interferes with the processing of stimulus information. Thus verbal distortion or delayed verbal report is assumed to result from the conflict or anxiety which a stimulus arouses.

In addition to measuring recognition thresholds for aggressive, dependent, and neutral scenes, the present research will undertake experimental manipulation of the recognition thresholds for aggressive scenes by introducing a frustration. Thus the relation of

Kagan and Moss, op. cit.

frustration to aggression in male alcoholics will be explored. Frustration is expected to increase the conflict over aggression in alcoholic subjects and to result in higher recognition thresholds. Frustration is expected to facilitate the expression of the aggressive response in normal subjects and to result in lower recognition thresholds for the aggressive scenes.

The following hypotheses will be tested by measuring the verbal report to tachistoscopically-presented line drawings depicting neutral, dependent and aggressive scenes:

Hypothesis 1. Alcoholic men are not expected to show more conflict over the expression of verbal responses to neutral stimuli than non-alcoholic men. It is predicted that there will not be any significant differences between the alcoholic and non-alcoholic groups on the recognition thresholds for neutral scenes.

Hypothesis 2. Alcoholic men are not expected to show more conflict over the expression of verbal responses to dependent stimuli than non-alcoholic men. It is predicted that there will not be any significant differences between the alcoholic and non-alcoholic groups on the recognition thresholds for dependent scenes.

Hypothesis 3. Alcoholic men are expected to have more conflict over the expression of aggression than non-alcoholic men. It is predicted that alcoholic men will have significantly higher recognition thresholds for the aggressive scenes than non-alcoholic men.

Hypothesis 4a. Non-alcoholic men will have significantly lower recognition thresholds for aggressive scenes under conditions of frustration than under conditions of non-frustration.

Hypothesis 4b. Alcoholic men will have significantly higher recognition thresholds for aggressive scenes under conditions of frustration than under conditions of non-frustration.

Hypothesis 5. Recognition thresholds for aggressive scenes will be independent of a) age, b) educational level, c) length of drinking history, and d) duration of sobriety.

CHAPTER II
PROCEDURE

Subjects

The subjects used in the experiment were matched for age and educational level (See Table 1). The groups were selected so as to control for socio-economic factors and matched for whether or not they were seeking help with their drinking problem.

The subjects consisted of eighty English-speaking men ranging from 24 to 48 years of age. Sixty were chronic alcoholics and 20 were non-alcoholics. The diagnosis of alcoholism was established by physicians specializing in services to alcoholics. The subjects' medical records of the Bowery groups were screened so that all Ss showing unequivocal evidence of central nervous system disease were eliminated from the study. The subjects were divided into four groups. Each group consists of ten pairs of subjects matched for age and educational level with a pair in every other group.

Group I. Alcoholics not actively seeking help with their drinking problem. They had been located in a drunken stupor on the streets of the Bowery.

TABLE 1
AGE AND EDUCATIONAL LEVEL OF THE FOUR GROUPS

VARIABLES	G R O U P S			
	Bowery no-help I	Bowery help II	Non- Bowery, help III	Control IV
AGE (in years)	38.1	38.4	38.0	37.6
EDUCATION (In years)	11.4	10.9	11.6	11.8

The first ten consecutive subjects meeting the study's criteria were selected. The next ten subjects were chosen so as to be matched to the first ten subjects. (See Appendix A for the matching variables). Many of these subjects may be found again and again in the same condition on the streets and there is convincing clinical evidence that they are a chronic population.

The subjects were not tested until the fourth or fifth day after admission to the Manhattan Bowery Project so as to insure that withdrawal was complete and that the signs of acute intoxication were absent. Subjects were tested at the detoxification center and were rewarded with cigarettes for their voluntary cooperation.

Group II. Alcoholics who were or had been living on the Bowery and who were seeking help with their drinking problem at the Shelter Care Treatment Center (Operation Bowery). The sample was drawn from clients who maintained regular contact with the center. Subjects were tested on a voluntary basis and received cigarettes for their cooperation.

Group III. Alcoholics who had never lived on the Bowery, were living "uptown" and were seeking help with their drinking problem either by active A.A. attendance and/or by attending and paying for group psychotherapy with a private practitioner. Thus this group is of higher

socio-economic status than Group I and II. 8 men were located through a private practitioner and 12 through the central office of Alcoholics Anonymous.

They were tested at the Graduate Center of the City University of New York.

Group IV. Non-alcoholic subjects who were located through the New York State Employment Service, Actor's Equity Association, and through public advertising. They were paid an hourly wage for participation in the study.

Apparatus

1. A constant illumination projection tachistoscope (Lafayette Instrument Company, Lafayette, Indiana).

Ss sat 52 inches from the screen on which the size of the projected pictures were 17 X 25 inches. The distance between the shutters of the tachistoscope and the screen was 90 inches. The illumination at the screen was 30 foot candles. This was the only source of light in the room. Ss were dark adapted for 10 minutes.

2. A tape recorder to record the testing sessions. The test protocols were transcribed by an assistant who had no knowledge of the group, condition or the hypotheses of the study.

3. A chinese puzzle consisting of two nails was used as a source of frustration. Ss were given the following instructions:

The next part of the experiment is to determine how good you are at figuring things out with your hands as well as your head. You have probably seen and played with this puzzle when you were around twelve years old and will probably find it easy. If you can get the nails apart in one minute you will receive four packs of cigarettes. If you can get the nails apart in two minutes you will receive two packs. Are you ready? Remember no pushing is allowed. Go.

Time was indicated every 15 seconds. The task was interrupted after two minutes so that Ss could not complete the task.

4. The Kagan and Moss Tachistoscopic Recognition Task (KMTRT).

The KMTRT was used to obtain indicators of conflict regarding aggression and dependency. This test consists of 19 line drawings depicting eight "aggressive", six "dependency", two "physical harm" and three "neutral" scenes¹. In half of the aggressive and dependency scenes the content is identical but the sex of the dominant

1. The pictures were shown to 26 judges who were asked to characterize the emotional content of each picture into one of five categories (aggressive, dependent, romantic, neutral and other). The eight scenes designated by Kagan and Moss as aggressive were classified as aggressive an average of 90% of the time; the range was from 62%-100%. classification in the aggressive category for the eight pictures. The pictures designated as dependent were classified as dependent as average of 86% of the time; the range was from 65%-96% classification in the dependent category for the six pictures. The scenes designated as neutral were classified as neutral an average of 67% of the time; the range was from 42%-100% classification in the neutral category for the three pictures.

figure is reversed. See Appendix B for copies of the pictures.

Administration. The pictures are presented at seven possible exposure speeds (0.01, 0.02, 0.04, 0.10, 0.20, 0.50, and 1.00 seconds). Three practice pictures are presented for 1.0 seconds each. The S is given the following instructions:

I am now going to show you some pictures at a very rapid speed and I want you to tell me what is happening in the pictures. Who are the people, are they male or female? What are their approximate ages? That is, are they old, middled-aged, young adults or children? Finally, what is each person in the picture doing?

The 19 pictures are first shown at the fastest speed, 0.01 seconds, and the subject is asked to report what he sees after each picture is presented. After all the pictures have been shown once, the S is told that he will see all of the pictures again at a slightly slower speed and in a different order. The order is randomly chosen in advance so that all subjects see the pictures in the same order. The procedure is repeated until the subject correctly identifies all of the pictures for two consecutive trials.

Scoring: There is no overall or total score for the test. Each picture receives a separate score. A score consists of the trial number at which the subject first accurately describes the sex, approximate ages of the stimulus figures and the content of the picture

and thereafter continues to do so without error. A score of 8 is assigned when a subject fails to produce a correct response by the seventh trial. The fastest possible accurate recognition score is 1. The slowest possible recognition score is 7. Inaccurate recognition receives a score of 8¹.

The following subscores were computed for each subject:

1. The mean score for the 8 aggressive scenes;
 - 1a. the mean score for scenes in which females are aggressive;
 - 1b. the mean score for scenes in which males are aggressive;
2. The mean score for the 6 dependency scenes;
 - 2a. the mean score for scenes in which females are dependent;
 - 2b. the mean score for scenes in which males are dependent;
3. The mean score for the neutral scenes.

Design of the Study

Each group of subjects was divided into two subgroups of matched subjects. One sub-group was tested under the frustration condition; the other was tested under the non-frustration condition. Subjects were tested individually.

-
1. Kagan and Moss reported that the percentage of agreement between two independent scorers assessing the trial at which age, sex, and activity of the stimulus figures was correctly reported was 94%. In the present study, the interscorer agreement on a random sample of 20 cases was 88%.

The Frustration Condition: First the frustrating task was administered. This was followed by the Kagan and Moss Tachistoscopic Recognition Task (KMTRT). A background history questionnaire was then completed. Forty subjects were tested under this condition.

The Non-Frustration Condition: Some background history questions were asked which took about 5 minutes. This was followed by the KMTRT. After completion of the KMTRT the rest of the background history questionnaire was completed. Forty subjects were tested under this condition.

Kagan and Moss showed their male subjects only scenes with male stimulus figures performing the dominant action and female subjects were shown only scenes with female figures performing the dominant action. The present study included sex-matched aggressive and dependent scenes so as to permit an analysis of the influence of the sex of the dominant figure on the recognition threshold scores.

Treatment of the Data

The first four hypotheses of the study were tested by a factorial analysis of variance design (Ferguson, 1959). The data were the mean recognition threshold scores for the neutral, dependency, and aggressive scenes considered for the four subject groups and the two experimental conditions.

For the first three hypotheses the key statistical measure considered is the groups effect. In addition separate one-way analyses of variance were performed on the scores for each of the experimental conditions. Comparisons among means were also made. The Duncan test (Edwards, 1965; p. 136) was used for comparisons among the three alcoholic groups with the error term derived from the factorial analyses of variance. The Dunnett test (Edwards, 1965; p. 152) was used when alcoholic groups were compared to the non-alcoholic group.

Two methods were used to test the fourth hypothesis. The major test was the interaction term of the factorial analysis of variance of the recognition threshold scores for the aggressive scenes. The second test was the comparison of the scores obtained with the two experimental conditions for each group analyzed by the application of the t-test for each group. One-tailed levels of significance were appropriate since the direction was specifically predicted for each group.

The fifth hypothesis was tested by the application of the Pearson product moment correlation method. The correlation coefficients were computed for the recognition threshold scores and the relevant demographic variables and were tested by the appropriate

level of significance determined by the size of the sample.

The data were further analyzed to assess the importance of the sex of the dominant stimulus figures on the recognition threshold scores for dependent and aggressive scenes. The recognition threshold scores for the matched sex pairs were analyzed using the Winer repeated measurements factorial design with repeated measurements on the last factor (Winer, 1962; p.337). The primary result to be considered is the sex of the dominant figure effect, though other findings will also be examined.

Formal predictions were not made about these data, but we did expect to find higher recognition threshold scores for those aggressive scenes showing females as aggressive than for those showing males as aggressive. Higher recognition threshold scores were also expected for those dependent scenes showing males as dependent than for those showing females as dependent.

Careful inquiry following the administration of the test revealed that none of the subjects had any idea as to the hypotheses of the study. The majority assumed that the aim of the study was to assess if damage was done to the eyes as a result of alcoholism.

Winer, B. Statistical Principles in Experimental Design.
New York, N.Y.: McGraw-Hill, 1962.

CHAPTER III

RESULTS

Recognition Threshold Scores for Neutral Scenes

Table 2 presents the mean recognition threshold scores for the neutral scenes for non-frustration and frustration conditions, individual analyses of variance for both of these conditions, factorial analysis of variance of the two conditions by groups, and mean comparisons.

None of the analyses revealed any significant differences. All groups have similar recognition threshold scores for neutral scenes. Thus the data support the hypothesis that the groups do not differ in their recognition threshold scores for neutral stimuli. Alcoholics appear to be similar to non-alcoholics in their ability to identify tachistoscopically-presented non-affective stimuli.

Recognition Threshold Scores for Dependency Scenes

Table 3 presents the mean recognition threshold scores for the dependency scenes for non-frustration and frustration conditions, individual analyses of variance for both of these conditions, factorial analysis of variance of the two conditions by groups, and mean comparisons.

TABLE 2

MEAN RECOGNITION THRESHOLD SCORES FOR NEUTRAL SCENES

CONDITIONS	G R O U P S				ANALYSES	
	IA	II ^a	III ^a	IV ^a	F	Significant Comparisons
Non-Frustration	4.70	4.14	4.92	4.71	1.11	None
Frustration	4.46	4.57	3.97	4.63	.74	None
Combined	(4.58)	(4.36)	(4.45)	(4.57)		

Factorial Analysis of Variance

Source	df	Mean Square	F	P
Rows (Conditions)	1	.882	.79	ns
Columns (Groups)	3	.391	.35	ns
Interaction	3	1.625	1.46	ns
Within	72	1.109		
Total	79			

Significant Mean Comparisons

Dunnett Combined Mean with Control: None
 Duncan Combined Groups : None
t for each group between conditions: None

a. Groups: I refers to the Bowery group not seeking help; II refers to the Bowery group seeking help; III refers to the non-Bowery alcoholic group seeking help; IV refers to the non-alcoholic control group.

* Significant at the .05 level

** Significant at the .01 level

TABLE 3

MEAN RECOGNITION THRESHOLD SCORES FOR DEPENDENCY SCENES

CONDITIONS	G R O U P S				ANALYSES	
	I ^a	II ^a	III ^a	IV ^a	F	Significant Comparisons
Non-Frustration	6.36	6.10	4.94	6.18	2.21	I-III** II-III** IV-III**
Frustration	6.97	6.41	5.13	6.75	6.63**	I-III** III-IV* II-III*
Combined	(6.68)	(6.26)	(5.04)	(6.47)		

Factorial Analysis of Variance

Source	df	Mean Square	F	P
Rows (Conditions)	1	3.445	2.34	ns
Columns (Groups)	3	10.812	7.36	.01
Interaction	3	.194	.13	ns
Within	72	1.467		
Total	79			

Significant Mean Comparisons

Dunnett Combined Mean with Control: III-IV**
 Duncan Combined Groups: I-III* II-III*
 t for each group between conditions: None

a. Groups: I refers to the Bowery group not seeking help; II refers to the Bowery group seeking help; III refers to the non-Bowery alcoholic group seeking help; IV refers to the non-alcoholic control group.

* Significant at the .05 level.

** Significant at the .01 level.

The Bowery alcoholics showed mean recognition threshold scores for dependency scenes that were similar to those of the non-alcoholics, but contrary to our hypothesis, the non-Bowery alcoholic group had lower recognition threshold scores than the other groups and therefore, seems to have less conflict over dependency than the other three groups.

Nevertheless, the combined alcoholic group as a whole showed no difference from the non-alcoholic group. The deviation shown by Group III is obscured if the groups are not considered individually^{1,2}.

Recognition Threshold Scores for Aggressive Scenes

Table 4 presents the mean recognition threshold scores for aggressive scenes for non-frustration and frustration conditions, individual analyses of variance for both of these conditions, factorial analysis of variance of the two conditions by groups, and mean comparisons.

-
1. The significant Groups effect found in the factorial analysis of variance indicates Group III's deviation from each of the other groups.
 2. Although the effect did not reach statistical significance, all groups had higher recognition threshold scores under the frustration condition than under the non-frustration condition.

TABLE 4

MEAN RECOGNITION THRESHOLD SCORES FOR AGGRESSIVE SCENES

CONDITIONS	G R O U P S				ANALYSES	
	I ^a	II ^a	III ^a	IV ^a	F	<u>Significant Comparisons</u>
Non-Frustration	6.53	6.19	5.67	6.111	2.35	I-III*
Frustration	6.86	6.52	4.99	5.90	12.69**	I-III** I-IV** II-III** III-IV**
Combined	(6.71)	(6.36)	(5.33)	(6.01)		

Factorial Analysis of Variance

Source	df	Mean Square	F	P
Rows (Conditions)	1	.066	.12	ns
Columns (Groups)	3	6.806	12.61	.01
Interaction	3	1.185	2.19	ns
Within	72	.539		
Total	79			

Significant Mean Comparisons

Dunnett Combined Mean with Control: I-IV** III-IV**
I & II -IV*

Duncan Combined Groups: I-III** II-III**
‡ for each group between conditions: None

a. Groups: I refers to the Bowery group not seeking help; II refers to the Bowery group seeking help; III refers to the non-Bowery alcoholic group seeking help; IV refers to the non-alcoholic control group.

* Indicates significance at the .05 level.

** Indicates significance at the .01 level.

Alcoholics were predicted to show more conflict over the expression of aggression than non-alcoholics as reflected in higher recognition threshold scores. But as can be seen in Table 4, the three alcoholic groups did not respond consistently to aggressive stimuli. Group III's mean recognition threshold scores were lower than the other two alcoholic groups and also significantly lower than the control group.

However, when the means for Groups I and II are combined they are significantly higher than the control group as predicted. Thus, though the uptown alcoholic group had lower recognition threshold scores than the control group, the Bowery groups did have significantly higher recognition threshold scores for aggressive scenes than the control group.

The Effect of Frustration on Recognition Threshold Scores For Aggressive Scenes

Frustration was predicted to intensify the conflict over aggression in alcoholic men and thus alcoholic men were expected to have significantly higher threshold scores under the condition of frustration than under the condition of non-frustration. Frustration was predicted to facilitate the expression of aggressive responses in non-alcoholic men and thus non-alcoholics were expected to have significantly lower threshold scores for aggressive stimuli under the condition of frustration than under the condition of non-frustration.

Table 4 shows that the two Bowery groups performed as predicted. Both Bowery groups showed higher recognition threshold scores for aggressive scenes under the frustration condition than under the non-frustration condition, but the differences were not statistically significant.

The reaction of the third alcoholic group, the non-Bowery group III, was contrary to hypothesis. This group had lower scores under the frustration condition than under the non-frustration condition, but this difference was not statistically significant either. The control group, although performing as predicted, did not show as great a difference between the two conditions as did Group III.

Thus the hypothesis does not receive strong statistical support. Group III contradicts the hypothesis and the scores of the Bowery groups and the non-alcoholic group, while in the predicted direction are not statistically significant.

It is interesting to note that more significant differences were found between the groups under the frustration condition than under the non-frustration condition. An overall F test of 12.69 is significant at the .01 level of confidence. Evidently the condition of frustration amplifies the differences between the groups.

Demographic Variables and Recognition Threshold Scores

Table 5 presents the correlations between each individual's mean recognition threshold scores and age, education, duration of sobriety, and chronicity of drinking¹.

As seen in Table 5, age and education were not significantly correlated with recognition threshold scores. But duration of sobriety is negatively correlated with recognition threshold scores for aggressive scenes, especially for those aggressive scenes showing males dominant. This relationship suggests that the longer a subject has been sober the lower will be his recognition threshold scores for the aggressive scenes. The converse also holds, that is, the shorter the duration of sobriety the more difficulty he will exhibit in reporting the content of aggressive scenes. This relationship holds primarily for the aggressive scenes showing males dominant. There was no correlation between duration of sobriety and the scores for aggressive scenes showing females dominant. Furthermore, duration of sobriety was not correlated with any of the other recognition threshold scores.

1. The chronicity of drinking score is a ratio derived from the number of years of actual drinking over the person's age.

TABLE 5
CORRELATION BETWEEN MEAN RECOGNITION THRESHOLD SCORES
AND DEMOGRAPHIC VARIABLES

THRESHOLD SCORES	DEMOGRAPHIC VARIABLES			
	Age ^a	Education ^b	Sobriety ^c	Chronicity ^d
Total Aggression	.17	.00	-.34**	-.04
Female	.13	.13	-.18	-.08
Male	.11	-.13	-.33**	.00
Total Dependency	-.04	-.01	-.17	-.28*
Female	-.07	-.09	-.19	-.21
Male	.04	.07	-.12	-.23
Neutral	.00	-.17	.06	-.14

a,b. N equals 80; an r of .22 significant at the .05 level.
an r of .28 significant at the .01 level.

c. N equals 74 due to missing data; an r of .23 is
significant at the .05 level. an r of .30 is
significant at the .01 level.

d. N equals 54; there is no data on chronicity from
Group I; an r of .27 is significant at the .05
level; an r of .36 is significant at the .01 level.

* Significant at the .05 level.

** Significant at the .01 level.

A significant negative correlation was also found to obtain between the recognition threshold score for the dependency scenes and chronicity of drinking ratio. Persons who have a higher chronicity of drinking ratio have lower threshold scores for dependency scenes and those with higher threshold scores for dependency scenes have a lower chronicity of drinking ratio.

Thus variables such as age and educational level do not appear to be related to recognition threshold scores but variables relating to drinking itself such as the proportion of one's life spent drinking and the duration of sobriety are. Recognition threshold scores for aggressive scenes appear to be related to duration of sobriety and recognition threshold scores for dependency scenes appear to be related to the proportion of one's life spent drinking. Aggression and dependency recognition threshold scores thus appear to be related to different aspects of the alcoholic syndrome.

The Drinking Variables

Table 6 presents the mean data obtained from the subjects about their drinking history. The duration of sobriety and the number of years that drinking has been a problem are estimates about their lives given by each subject.

TABLE 6
DRINKING VARIABLES: MEANS

VARIABLE	G R O U P S		
	I ^a	II ^a	III ^a
Duration of sobriety	4-5 days	8½ weeks	39½ months
Actual Years that Drinking a problem	b	13.0 years	14.6 years
Chronicity ratio	b	.337	.428

- a. Groups: I refers to the Bowery group not seeking help; II refers to the Bowery group seeking help; and III refers to the non-Bowery alcoholic group seeking help.
- b. Information was not available on the drinking history of Group I.

As can be seen in Table 6 the groups differ in the duration of their sobriety. Group III had the longest duration of sobriety, whereas Group I had the shortest. However, a non-significant rank order correlation coefficient of .27 was found when duration of sobriety and recognition threshold for aggressive scenes were correlated for the 20 subjects in Group III.

In addition, Group III reports a longer history of drinking than Group II¹. The chronicity ratio indicates that Group III has spent a larger proportion of their lives drinking. The median number of years of drinking a problem for Groups II and III combined was 15 years. The recognition threshold scores for the dependency scenes for those below the median was 5.78 while the recognition threshold scores for those above the median was 4.73. This breakdown of the scores for the groups combined corresponds to the correlational finding of a negative relationship between the chronicity ratio and the recognition threshold scores for the dependency scenes. However, when each group is divided into high and low history of drinking, only Group III shows a slight trend to support the finding.

1. There is missing data on the number of years that drinking is a problem from Group I due to inadequate record keeping. It is not clear how that group would have influenced the findings.

Sex of the Aggressive Figure and Recognition Threshold Scores

Table 7 presents the mean recognition threshold scores for the aggressive scenes in which the female figure is aggressive and those in which the male figure is aggressive for the four groups under the non-frustration and frustration conditions, and the factorial analysis of variance with repeated measurements.

It can be seen from Table 7 that there is a significant F of 24.69 ($p < .01$) attributable to the sex of the dominant or aggressive figure. There is also a significant groups effect and a significant groups X sex of the dominant figure interaction effect. The mean recognition threshold scores for aggressive scenes showing a female figure aggressive is generally higher than the mean recognition threshold scores for scenes showing a male figure aggressive for all groups with the exception of Group I. With frustration Group I has lower scores for seeing female figures aggressive than for seeing male figures aggressive. The significant groups effect signifies the lower scores of Group III as compared to the other groups. In general it appears that longer amounts of time are required to identify females in aggressive positions than to identify males in the "same" aggressive positions.

Sex of the Dependent Figure and Recognition Threshold Scores

Table 8 presents the mean recognition threshold

TABLE 7

MEAN RECOGNITION THRESHOLD SCORES AND SEX OF THE DOMINANT
FIGURE IN AGGRESSIVE SCENES

CONDITIONS	G R O U P S							
	I ^a		II ^a		III ^a		IV ^a	
	Fem. fig.	Male fig.	Fem. fig.	Male fig.	Fem. fig.	Male fig.	Fem. fig.	Male fig.
Non - Frustration	6.76	6.33	6.54	5.85	6.23	5.27	6.40	5.83
Frustration	6.48	6.95	6.70	6.34	5.84	4.34	6.41	5.49

Repeated Measurements Factorial Analysis of Variance

Source	df	Mean Square	F	P
Between	79			
Condition (A)	1	.27	.27	ns
Groups (B)	3	10.85	10.86	.01
AB	3	1.90	1.90	ns
Error	72	.99		
Within	80			
Sex of aggressive figure (C)	1	15.38	24.69	.01
AC	1	.07	---	ns
BC	3	2.69	4.31	.01
ABC	3	1.09	1.74	ns
Error	72	.62		

- a. Groups: I refers to the Bowery group not seeking help; II refers to the Bowery group seeking help; III refers to the non-Bowery alcoholic group seeking help; IV refers to the non-alcoholic control group.

scores for dependency scenes in which the female figure is dependent and those in which the male figure is shown as dependent for the four groups under the non-frustration and frustration conditions, and the factorial analysis of variance with repeated measurements.

It can be seen from Table 8 that there is a significant F of 15.20 ($p. < .01$) attributable to the sex of the dependent figure. There is also a significant groups effect and a significant groups X conditions X sex of the dependent figure interaction effect. The groups effect reflects that Group III has threshold scores which are consistently lower than the other groups.

The general pattern is that higher scores are required to recognize a male in a dependent position than to recognize a female in a dependent position. Group II does not follow the same pattern as the other groups under the condition of non-frustration. This group has more difficulty in identifying females as dependent than in identifying males as dependent. It also appears that for all groups higher threshold scores were needed to identify men as dependent under the condition of frustration than non-frustration.

In summary, the data show that higher scores are required to report males as dependent than to report females as dependent. Thus it appears that longer amounts of time are required to identify males in dependent positions than to identify females in the "same" dependent positions.

TABLE 8

MEAN RECOGNITION THRESHOLD SCORES AND SEX OF DOMINANT
FIGURE IN DEPENDENCY SCENES

CONDITIONS	G R O U P S							
	I ^a		II ^a		III ^a		IV ^a	
	Fem. fig.	Male fig.	Fem. fig.	Male fig.	Fem. fig.	Male fig.	Fem. fig.	Male fig.
Non-Frustration	6.27	6.50	6.21	5.96	4.86	5.04	5.32	6.87
Frustration	6.29	7.67	5.83	7.01	5.14	5.20	6.40	7.00

Repeated Measurements Factorial Analysis of Variance

Source	df	Mean Square	F	P
Between	79			
Conditions (A)	1	7.70	2.68	ns
Groups (B)	3	20.43	7.11	.01
AB	3	.37	.12	ns
Error	72	2.87		
Within	80			
Sex of dependent figure (C)	1	15.19	15.20	.01
AC	1	1.42	1.43	ns
BC	3	1.71	1.71	ns
ABC	3	3.09	3.09	.05
Error	72	.999		

- a. Groups: I refers to the Bowery group not seeking help; II refers to the Bowery group seeking help; III refers to the non-Bowery alcoholic group; IV refers to the non-alcoholic control group.

CHAPTER IV

DISCUSSION

The present research was an attempt to clarify the roles of conflict over aggression and dependency in the etiology of male alcoholism by assessing whether these conflicts were more prevalent in male alcoholics than in normal men. The verbal responses to tachistoscopically-presented stimuli were used as an index of conflict. Since these responses were obtained from adults who were already alcoholics, the conclusions are limited to the role that these conflicts may play in the personality picture of the established alcoholic; etiological significance can only be inferred.

Another possible limiting factor of the research concerns the meaning of the scores which are being used as indices of conflict. These scores reflect the time required for the subject to make an accurate verbal identification of the stimuli. There are two assumptions that are made. One is that longer time for accurate identification means perceptual delay in processing the stimulus information. The second is that the delayed report is due to conflict about the

stimulus material. Implicit is the reasoning that conflict results in a delay either of perceptual or verbal reporting methods. As we shall suggest later, it is also possible that conflict may result in heightened sensitivity and alertness to conflictual material. The limitation of using longer recognition thresholds as an index of conflict is that we are focusing upon only one technique for handling conflict.

The major results of the study show that although the groups do not vary in their threshold scores for the neutral stimuli, there are significant differences among groups on threshold scores for aggressive and dependency stimuli.

Significant differences were found among the alcoholic groups on their recognition threshold scores for the dependency and aggressive scenes. Only with the aggressive scenes did all the alcoholic groups differ from the control group. However, the alcoholic groups were not consistent; the Bowery alcoholics had significantly higher recognition thresholds for aggressive scenes than the control group and the non-Bowery alcoholic group had significantly lower scores than the control group. The non-Bowery alcoholic group had consistently lower scores than both the other alcoholic groups and the control group for both dependency and aggressive scenes. These results will now be discussed.

Neutral Stimuli

Our first hypothesis that no differences among the groups were expected in their tachistoscopic recognition threshold scores for neutral scenes was supported. This finding establishes that the groups can perform equally when non-affective stimuli are the object of their perception and verbal report. The finding that the chronic alcoholics in this study can identify neutral stimuli as quickly as the control group is evidence against any suggestion that there is central nervous system effects from prolonged alcoholic intake which influenced the perceptual apparatus and hence influenced the scores.

It might be argued that organic damage is present but that it shows itself only in the processes required for the integration of affective stimuli. That this is not the case with this study is shown by the lower affective scores of Group III than the control group.

That the neutral stimuli cannot be considered less complex and therefore easier to identify is reflected in the high threshold scores for their accurate identification as compared to the threshold scores for some of the affective stimuli. See Appendix B. All groups required more time to recognize the neutral scenes than for some of the aggressive scenes. However,

it cannot be inferred that there was more conflict over neutral scenes than there was over aggressive scenes because varying stimulus complexity as an influence on thresholds scores must also be considered. What is clear is that despite the absolute amount of time required to identify the neutral scenes, the groups did not differ on their scores for these scenes.

For the reason of varying stimulus complexity it was not possible to make comparisons between the threshold scores for different pictures. The only legitimate comparisons were between groups on the same pictures or between the matched-sex pictures depicting the same contents.

Conflict Over Dependency

The hypothesis predicted that there would be no differences between the alcoholic and non-alcoholic groups with respect to conflict over dependency and that this would be shown by similar threshold scores for the dependency scenes for all of the groups. The reasoning behind this hypothesis was that since McCord and McCord (1960) postulated a dependency conflict for alcoholics and since Kagan and Moss (1962) also postulated a dependency conflict in normal men, that these two groups were both expected to show dependency conflicts.

McCord and McCord, op. cit.

Kagan and Moss, op. cit.

The results show that Group III, the non-Bowery alcoholic group seeking help, differs from the other alcoholic groups and also from the control group in having significantly lower recognition threshold scores for the dependency scenes. None of the other alcoholic groups differed from the control group or from each other.

That the non-Bowery alcoholic group has lower threshold scores for the dependency scenes than the other groups is contrary to the hypothesis and also contrary to the theory of McCord and McCord. The theory would predict higher dependency threshold scores for the alcoholic groups because of the assumption of greater conflict in the alcoholics. The findings of the study are that the Bowery alcoholic groups are no different from the control group and hence appear to show the same amount of conflict over dependency as the controls. The non-Bowery alcoholic group, in having lower scores, appears to show less rather than more conflict over dependency than the controls and the Bowery alcoholics. This unexpected finding will be discussed shortly.

A significant negative relationship was found between the chronicity of drinking ratio, i.e., proportion of one's life spent drinking, and the recognition threshold scores for dependency scenes. The finding shows that

the higher the chronicity ratio the lower the threshold scores for dependency scenes (ease in recognizing the dependency scenes) and the lower the chronicity ratio, the higher the threshold scores for the dependency scenes. If the McCord and McCord (1960) theory were correct we would assume that the hard-core alcoholic would show the most conflict over dependency and thus we would expect a high positive correlation between recognition threshold scores for the dependency scenes and chronicity of drinking ratio.

It is possible that the long-standing alcoholic gives in to his dependency needs and thus is not in conflict about them. It might be said that the less chronic alcoholic is still involved with the dependency problem and is in conflict about them and thus will have higher threshold scores than the more chronic alcoholic. Some observations of McCord and McCord seem to support this view and also lead us to suggest that dependency conflicts, if they are of etiologicaal significance, are no longer prominent in the adult alcoholic.

McCord and McCord note that adult alcoholics seemed to show a good deal of dependency whereas the prealcoholics seemed to deny dependency. Passive behavior among the boys was negatively related to later alcoholism. McCord and McCord feel that the

prealcoholic's reaction to intense dependency needs is to assume a facade of masculinity. In our study, all subjects were already diagnosed alcoholics, but perhaps the less chronic alcoholics can be viewed in the same light as the prealcoholics, that is, still involved in denying his dependency needs, and thus having higher recognition threshold scores for the dependency scenes.

Chronicity of drinking, however, does not appear to sufficiently account for the differences on the recognition threshold scores for the dependency scenes. Even though Group III has a longer reported history of drinking and has a higher chronicity ratio than Group II, and the combined median analysis supports the correlation, the data show that the relationship between drinking chronicity and the dependency threshold score is different for each of the groups considered separately. For Group II those subjects with a longer history of drinking do not have lower recognition threshold scores for the dependency scenes. Group III's recognition threshold for dependency scenes are lower than Group II's even when chronicity is matched. This leads us to suggest that there are other major differences between the alcoholic groups besides the chronicity of drinking to account for the differences in the recognition threshold scores for the dependency scenes.

To account for Group III's lower recognition threshold scores for the dependency scenes than the other alcoholic groups, we can postulate that this group, in having a longer duration of sobriety than the other alcoholic groups, was better able to integrate the affective stimuli. But this explanation would not account for Group III's recognition threshold scores being lower than the control group, where no incapacity is suspected.

It is also possible to suggest that this group does in fact have less conflict over dependency. Non-Bowery alcoholics may be a group which differs from both normals and Bowery alcoholics. This is open to future research.

However, an alternative interpretation to that of less conflict is possible. This group may be representative of "treated" and "controlled" alcoholics¹. Since Group III consisted of members who regularly attended wither group therapy or A.A. meetings, their way of handling the tachistoscopic material, and therefore conflict itself, might have been influenced by what they had learned in therapy. They may have become more alert and sensitive to the presence of their

1. Group III spent considerably more time in seeking help consistently than did Group II.

dependency conflicts. Their low recognition threshold scores for the dependency scenes might mean that they have developed a different method of handling conflict. The sensitization through treatment would account for Group III's deviation from both the alcoholic groups and also from the control group.

Conflict Over Aggression

The third hypothesis stated that alcoholic men were expected to be more conflicted over the expression of aggression than are non-alcoholic men and that this would be reflected in significant differences in recognition threshold scores for the aggressive scenes between the alcoholic and non-alcoholic groups.

The results give some evidence to support the hypothesis but also yield some unexpected findings. Significant differences were found among the alcoholic groups. In addition the non-Bowery alcoholic group III had significantly lower scores than the control group. The Bowery alcoholic groups had significantly higher scores than the control group as predicted.

The high threshold scores of the Bowery groups would seem to be an indication of greater conflict over aggression than the other groups. The non-Bowery alcoholic group would appear to have the least conflict over aggression. Thus it is possible to suggest that these groups vary in their level of conflict. An alternative interpretation will be developed shortly after some of the other findings are considered.

Sobriety and Recognition Threshold Scores for Aggressive Scenes

Conflict over the expression of aggression, as measured by the recognition threshold scores for the aggressive scenes, was expected to be independent of age, educational status, chronicity of drinking history, and duration of sobriety. As predicted, age, education and chronicity of drinking ratio bear no direct correlations with the recognition threshold for the aggressive scenes.

However, length of sobriety was found to be negatively correlated with the recognition threshold scores for the aggressive scenes. Thus the longer the sobriety the lower the threshold scores, and the shorter the sobriety the higher the threshold scores for the aggressive scenes.

Duration of sobriety is longest for Group III , and thus appears to be related to Group III's low recognition threshold scores for aggressive scenes. However, it should be noted that the correlation between sobriety and aggression threshold scores did not reach significance when only Group III was analysed by itself. This may be due to the small sample size of Group III or an indication that other factors are also operative.

Groups II and III had been chosen without any specification as to duration of sobriety, whereas Group I had only 4-5 days of sobriety at the time of testing as a planned part of this study. Duration of sobriety was therefore an uncontrolled factor for Groups II and III. It might have been viewed as an

overall contaminating factor if duration of sobriety was related to all the threshold scores, but the fact is that it was only related (through correlation) to the recognition threshold for the aggressive scenes. The lack of relationship between sobriety and the threshold scores for the dependency and neutral scenes and the presence of a relationship with the recognition threshold scores for the aggressive scenes suggests that it is conflict over aggression that bears a relationship to drinking pattern and alcoholism.

It can be asked why people with little recent sobriety show high recognition thresholds for aggressive scenes and why those with much recent sobriety show low threshold scores, and why sobriety is not related to any other tachistoscopic response? Why does a person who has maintained sobriety show such ease in handling aggressive stimuli?

It is possible that alcoholics who have attained only a short duration of sobriety are more conflicted about the expression of their aggressive impulses. This may be the cause of their short sobriety. That is, their higher level of conflict over aggression may interfere with their efforts for longer sobriety. Or it may be that persons struggling to maintain sobriety are more consciously aware or unsure of themselves and are more watchful of their aggressive

tendencies and may consciously hold back verbal report of aggression until they are more sure than the others. Whereas a person who has successfully been sober for a sustained period may either have an openness to respond or may have learned through therapy to recognize and perhaps anticipate aggressive situations. Future research is necessary to clarify the processes involved in the different phases of sobriety. An area to be studied in line with the suggestions above would be that of risk-taking behavior.

One can also suspect that the great differences in the duration of sobriety attained by the three groups is correlated with some nervous system impairment. However, there are three lines of evidence which speak against this interpretation. Our study shows that Group III had lower scores than the control group where, of course, no central nervous system damage is suspected. Secondly, the studies of Karp, Witkin and Goodenough (1965) give evidence of stability of perceptual functioning throughout the different stages of the alcoholic cycle. Third, the differences between the groups are not shown with the neutral stimuli. Therefore, the condition of the perceptual apparatus per se does not serve as an adequate explanation of the correlation of duration of sobriety with the recognition threshold scores for the aggressive scenes.

Karp, S., Witkin, H., & Goodenough, D., Alcoholism and psychological differentiation. Quart. J. Stud. Alc., 1965, 26, 580-585.

Fox (1965) has suggested that many of the personality characteristics of the alcoholic are direct results of drinking and that these regressive features are not present when consistent sobriety is achieved. With this view in mind, it is possible to suggest that a temporal factor in terms of sobriety is the main characteristic accounting for the group differences. However, one must inquire about what else occurs during the time period other than sobriety. Could one infer that if the Bowery alcoholics were sober for as long as Group III they would produce similar threshold scores? What is considered consistent sobriety? Since Group II had attained two months of sobriety as compared to 4 days for Group I, why aren't their scores more different from Group I? Why does Group III have even lower scores than the control group? This line of questioning leads us to conclude that it is not sobriety by itself which influenced the threshold scores.

A main question still to consider is what accounts for the different recognition threshold scores of the three alcoholic groups.

Fox, R. op. cit.

Characteristics of Bowery and Non-Bowery Alcoholic Groups

As we have seen the non-Bowery alcoholic subjects and the Bowery subjects differed in their recognition threshold scores for the aggressive and dependency scenes. With both, the non-Bowery alcoholic group is consistently lower than the other groups. We will now explore further some of the characteristics of the groups which might aid in understanding their different tachistoscopic performances.

Group III spent considerable time and effort exploring their alcoholic problem, either in A.A. meetings or in group psychotherapy. They were very motivated to participate in the study and made a special trip to the Center to do so. Their high motivation was in part due to a desire to help the world learn more about alcoholism and to make a contribution to this. This motivation was their only reward for participating in the study. The motivation of the Bowery subjects was more closely related to the concrete rewards offered for participating in the study.

Group III's attitude, when expressed, reflected interest in what their results were showing about alcoholics in general. The Bowery groups seemed more concerned about what the results were showing about them in particular. However, this is a general observation and there were exceptions in both groups.

None of the men in Group III had spent time on the Bowery and none were as devoid of interpersonal relationships as were the Bowery alcoholics. Many of them were working in responsible positions. Some had sustained quite prolonged periods of sobriety (although the average was around three years, one had been sober for as long as 16 years). Yet they were still continuing with treatment to prevent a "slip". In a sense dealing with the problem of alcohol became a way of life for many of them. Their seeking help was with more apparent committment than the Bowery seeking help group. This group can be considered more successful in their attempt to rehabilitate themselves. One might suggest that they were not as chronically alcoholic as the Bowery groups were in the first place; however their report of a more lengthy history of drinking as a problem would seem to negate this view.

One open question remains in terms of the more lengthy history of drinking of Group III. This data is the report of the subject. It is possible that Group III's sophistication about the course of alcoholism may have resulted in this group's recognizing taht problem drinking existed at an early age and thus acknowledging this in the questionnaire. The Bowery groups may be prone to more denial about their drinking history and their report may refelct this denial rather than the actual history of drinking.

The question to consider is whether the Bowery alcoholics and the non-Bowery alcoholics were different at the start or whether the sobriety and treatment allowed different developments to occur in the non-Bowery group. The literature on alcoholism touches upon these issues and will be briefly discussed.

The Question of Diagnostic Differences Between the Groups

It is possible to apply Knight's (1937) distinction between reactive and essential alcoholism and to suggest that the Bowery groups represent the essential classification (with more severe ego defects) whereas the non-Bowery alcoholic group represents the reactive classification (more psychoneurotic). This distinction allows for differing etiological factors in each group. Within this frame of reference, little overlap would be expected between the Bowery and the non-Bowery alcoholic groups. The non-Bowery group would not be expected to end up on the Bowery. Since they represent different populations, their scores would not be expected to be similar. Thus differences in our data between the Bowery and non-Bowery alcoholic groups could be explained as due to differences in the subtype of alcoholic personality and etiology.¹

Knight, R., The dynamics and treatment of chronic alcohol addiction., Bull. Menninger Clin., 1937, 1, 233-250.

1. We are aware that there is the danger of circular reasoning in the Knight classification system used in a post hoc manner.

Karlin and Heller (1946) categorized chronic alcoholics according to three diagnostic classifications (psychoneurotic, inadequate personality and mental defectives) and found that psychoneurotic alcoholics wanted cure much more than the others. Applied to the present study, it can be that Group III, considered psychoneurotic alcoholics, did want cure more than the other alcoholic groups and did more to attain this "cure". Here too, a diagnostic differentiation would be called upon to account for the difference in recognition threshold performance between the Bowery and non-Bowery alcoholic groups. Is it possible that the desire for cure and the ability to obtain this cure interacts with the status of the conflicts in the individual?

Schaefer (1954) found five different alcoholic personality types through a factor analysis of psychological test scores. Of relevance to the present study is his finding that social competence and occupational adjustment were related to the personality types isolated but that age of onset of alcoholism and drinking was not. These factors parallel the present findings in that age of onset of drinking appears to be the same for all three alcoholic groups;

Karlin, S. & Heller, H., Chronic alcoholism: psychiatric and rorschach evaluation. J. Clin. Psychopath., 1946, 8, 291.

Schaefer, E., Personality structure of alcoholics in outpatient psychotherapy, Quart. J. Stud. Alc., 1954, 15, 304-319.

and age and educational level are the same for all groups and are independent of the threshold scores. However, social competence as shown by Group III appears to be related to the threshold scores. It is possible that the socially competent alcoholic handles his dependency and aggressive conflicts in a different manner than does the socially incompetent person. It is also possible that the socially competent alcoholic is not as conflicted over dependency or aggression as the incompetent alcoholic.

There are some studies which give evidence to suggest that matched alcoholic group (in terms of age, education, and socio-economic status) but differing in A.A. membership also differ in other personality characteristics. Seiden (1960) found that A.A. members possess greater "ego strength" as measured by the Bender-Gestalt test, than non-A.A. alcoholics. Seiden used inpatients for acute alcoholism as his non-A.A. group; this would resemble our Group I.

Karp, Witkin and Goodenough (1965) found that A.A. members had less field dependency, as measured by their perceptual tests, than non-A.A. members. If we regard Group III as representative of A.A. members, we would therefore expect more field independence in this group, and hence more of an analytic attitude, than in the other groups. Thus the differences between A.A. members and non-A.A. members, as represented by our different groups, would seem to correspond with

differences in styles of handling conflicts.

Most relevant to the present findings are those of Mathias (1956). He found that the main difference between chronic alcoholics and A.A. members was in their method of handling aggression. The chronic group gave a picture of strong self-aggressive trends, low verbal productivity, and high dysphoric elements. The A.A. group presented a converse pattern of low self-aggression, high verbal productivity, marked hypomanic trends and paranoid symptoms. Mathias says that the aggression of the chronic alcoholic is directed inward and he tries to counteract his aggression by drinking or punishes himself with self-destructive behavior. The A.A. member's aggression is directed outward and takes the form of hypomanic and paranoid trends.

These findings of Mathias provide an important link for the understanding of the present data and support an interpretation that we have been suggesting. If Group III can be viewed as similar to the A.A. members that Mathias studied, they would be expected to be more paranoid, suspicious, alert, hypersensitive, and more freely expressive of aggression. This alcoholic could be viewed as sensitized to conflictful material

Mathias, R. An experimental investigation of the personality structure of chronic alcoholics, alcoholics anonymous, neurotic and normal groups. Dissertation, Univ. of Buffalo, Source of abst: Diss. Abst., 1956, 16, 156-157.

and as having the propensity to express what he senses. Thus, it is possible that Group III, being more alert, and also taught not to deny his feelings would be primed to express his perceptions far more readily than even an unsophisticated control group.

The evidence therefore, seems to suggest that the non-Bowery alcoholic's low recognition threshold scores may be related to different experiences and to different styles of dealing with conflicts in general. The ability to maintain a longer period of sobriety might be either the cause or the result of the stylistic differences among the groups. The data on diagnosis from the literature suggest that we might be dealing with a certain subtype of alcoholic which might be differentiated at the outset from the Bowery alcoholics. At present our resources for this type of differentiation are limited; perhaps perceptual tests, such as the Kagan and Moss Tachistoscopic Recognition Task, can be of use in facilitating this differentiation. Future research is needed to explore this possibility.

Sex of the Dominant Figure

The results show that the sex of the dominant figure has an influence on the recognition threshold scores for both the dependency and aggressive scenes.

All of the groups were similar when it came to viewing the aggressive scenes showing females as aggressive. The differences among the groups

on the recognition threshold scores for aggressive scenes were only reflected on those scenes showing males as aggressive. This strongly suggests that the groups generally differ in their response to males and females performing the "same" aggressive acts. It is only when viewing aggressive scenes with males aggressive that the dynamics of the different groups come into play.

In the case of the dependency scenes, though, there was a difference among the groups on the threshold scores for scenes showing males dependent as compared to scenes showing females dependent (with the higher threshold scores for the scenes showing males as dependent), group differences were also found with the female scenes alone.

Thus it is possible that with the aggressive scenes, identification occurs more readily when the figures are the same sex as the subject, as Kagan and Moss have suggested. However, we may add that identification may be a necessary prerequisite for the dynamic picture to reveal itself in only some instances.

Frustration and Recognition Threshold Scores for Aggressive

The fourth hypothesis stated that alcoholic men were expected to show higher recognition threshold

scores for the aggressive scenes with frustration than under the condition of non-frustration. Non-alcoholic men were expected to have lower threshold scores under the condition of frustration than non-frustration.

A strong source of evidence to support this hypothesis would have been a significant interaction term from the factorial analysis of variance. This term did not reach statistical significance; however, it fell just short of reaching it, indicating a trend.

None of the groups themselves show differences which reach significance when the two experimental conditions are compared. Group III, however, is the only group which does not behave as had been predicted. Its' scores are lower under the condition of frustration than under non-frustration, which is contrary to the hypothesis for alcoholic groups and similar to the hypothesis for the control group.

As expected the Bowery groups tend to show higher threshold scores with frustration than with non-frustration. Thus the means of the Bowery groups and the non-alcoholic group tend to support the hypothesis. Group III behaves differently and is more closely related to the control group in its pattern of reaction to frustration; this behavior tends to support the suggestion that Group III is different in its cognitive style and reactions from the other alcoholic groups.

An interesting pattern in the behavior of Group II was observed. Under the condition of non-frustration this group had very similar threshold scores for the aggressive scenes to the control group. However, with frustration, the recognition threshold scores of Group II no longer resembled the control group and were more similar to Group I. This may relate to an important observable quality in the clinical course of the Bowery alcoholic. This is, under non-frustrating conditions he may look decidedly different and more well-balanced than the non-seeking help Bowery alcoholic, but a life frustration can easily upset that balance which he maintains in the time of non-stress. The Bowery alcoholic seeking help will appear very similar to the Bowery alcoholic who is not seeking help when he is frustrated.

The fact that three of the groups reacted to the frustration in the predicted direction, although this trend did not reach significance, raises the question of the interrupted puzzle as an adequate source of frustration. Due to the conditions under which the Bowery alcoholic lives, the usual conditions of experimental frustration, such as being kept waiting, would not have been appropriate. The aim was to have the subject involved enough in a task so that the interruption of the task would be felt as a frustra-

tion. It is possible that a stronger frustration might have produced stronger results.

However, it appears that the frustration did have some effect on the recognition threshold scores for the aggressive scenes in that there were many more significant differences between the groups under the frustration condition than under the non-frustration condition. It appears that the frustration acted to highlight certain differences among the groups. The presence of frustration in the subject may potentiate the conflict over aggression and may be seen as demonstrating the presence of different stylistic approaches in the groups. This requires further study.

Basic Assumptions of the Study

The derivation of the hypotheses of this study rested upon the following basic assumptions:

1. Alcoholics could be spoken of as a uniform clinical entity.
2. Aggression and dependency each could be spoken of as unified dimensions.
3. Tachistoscopic responses could reflect conflict.
4. The Kagan and Moss model depicting aggression conflicts in women and dependency conflicts in men is a precise model.

Built into the study were devices for testing the validity of these basic assumptions.

Alcoholism as a Unified Clinical Entity

The prevalent practice in psychopathology is to speak of alcoholics as one uniform group. There have been some who have taken issue with this practice (Knight, 1937; Robins, 1966; Schaefer, 1954; Rosen, 1960; and Sutherland, 1950). However, the literature is largely composed of references to "the alcoholic". Although alcoholics may share certain characteristics, what is clearly evident from the data of this study is that it is an incorrect generalization to speak of alcoholics as one uniform clinical group with common features as regards aggression and dependency conflicts. The significant differences found between the alcoholic Bowery and the alcoholic non-Bowery groups on the recognition thresholds derived from the tachistoscopic task suggests either differences in conflicts or differences in handling conflicts between the groups.

Knight, op. cit.

Robins, op. cit.

Schaefer, op. cit.

Rosen, A. A comparative study of the alcoholic and psychiatric patients with the MMPI., Quart. J. Stud. Alc., 1960, 21, 253-266.

Sutherland, E., Schroeder, H. & Tordelis, C. Personality traits and the alcoholic., Quart. J. Stud. Alc., 1950, 11, 547-561.

This would seem to necessitate the rejection of hypotheses which had been adapted upon the prevalent shorthand of speaking of alcoholics as one group. The differences between opposing etiological theories may be the result of generalizing to the whole class of alcoholics the etiology relevant and specific to one subtype of alcoholics. Thus, it appears that the etiology and clinical entity called alcoholism is more complicated than the theories had suggested.

Thus the evidence is strong that the alcoholics did not represent a homogeneous group at the time they were studied. There is still the problem of circularity which needs to be clarified by future longitudinal research. Can a Bowery alcoholic sober for a substantial period of time resemble the non-Bowery alcoholic? If he is first classified as an essential alcoholic, would the classification be changed if he successfully rehabilitates? Is it possible to differentiate rehabilitatable Bowery alcoholics from non-rehabilitatable alcoholics before the test of time is applied? Can these differences be discerned on psychological or perceptual tests?

Another consideration for future investigation concerns the meaning of "matching" in an experimental study. The alcoholic groups in this study were matched for educational level; however, without having extensive

knowledge of the background from which these men came, it is not clear if these educational attainments are valued in the same ways. Also, it seems clear that the groups are from different socio-economic backgrounds at the time they were selected, but this too must be considered in conjunction with the total framework from which these subjects came. Possibly, even with the higher socio-economic status of Group III in comparison to the Bowery groups, Group III's status may represent a decline from the level of their family as great as that of Groups I and II. Thus, it appears that a more total and global type of longitudinal research would be very worthwhile in the further understanding of alcoholism.

The Validity of Assuming that Aggression and Dependency Are Uni-Dimensional

The theorists that we have addressed ourselves to tend to speak of aggression and dependency as global concepts and did little to impart differentiation to these concepts which could account for the manifold behaviors which could be classified under each of them.

The measures of conflict over aggression in this study as derived from the intercorrelations of the recognition threshold scores for the individual aggressive scenes suggest that a person's reactions to the depictions of aggression as reflected by recognition threshold scores is not a unidimensional attribute . Appendix C presents the intercorrelations and a summary of the findings. There is evidence to suggest that aggression

and may be a situational variable rather than a trait characterizing a person or group of persons. The sex of the aggressive person, the sex of the object or recipient of the aggression, and the type of aggression being performed are important variables to consider when discussing aggression.

This is shown most clearly when considering some of the correlations between the recognition threshold scores for the dependency and aggressive scenes. It appears that difficulty in expressing aggression toward a peer is related to dependency in a general sense. However, the strongest correlation between the scores occurs in relation to aggression to an older woman and the dependency scores; whereas aggression toward an older man is not correlated at all with any of the dependency scenes. Thus the object of the aggression is clearly an important characteristic.

The aggressive scenes show very little relationship to each other in comparison to the large number of significant correlations found among the dependency scenes. It seems that this can in part be explained by the limited scope of the dependency pictures. In the dependency pictures the age differentiation is not as clear as in the aggressive pictures, nor is there differentiation to delineate types of dependency. These factors may have contributed to the high inter-correlation among dependency scenes.

Because of the high degree of relationship between the dependency pictures we cannot determine if the pictures represented an adequate range of dependency behaviors, or if in fact, dependency is very generalizable and less differentiated than aggression.

Tachistoscopic Response as a Measure of Conflict

High recognition thresholds have been accepted as measures of conflict, anxiety and repression. Low recognition thresholds have been used as a measure of lack of anxiety, conflict or repression (Kagan and Moss, 1962). However, due to stimulus complexity, absolute threshold scores are not valid indices of conflict.

The results of the present study show that differences between the groups occur only with those tachistoscopic scenes depicting aggression and dependency. These findings are relevant to the theories about conflict. Furthermore, no differences were found on the neutral scenes where there was no theoretical base to assume conflict. This would seem to lend support to the assumption that longer tachistoscopic recognition thresholds can be valid measures of conflict but only when groups are expected to differ in the amount of conflict present.

However, when using a control group, it is necessary

to consider a deviation in any direction from the scores of the control group as evidence for different techniques of handling the material. Threshold scores higher than the control group might suggest anxiety leading to blocking, a tendency toward denial, caution, a tendency to handle conflicts by repression, and in general a slower responsiveness to the world. Threshold scores which are lower than the control group might suggest hyperalertness and hypersensitivity, intellectualization, impulsive acting, and a tendency to confront conflicts very openly and bluntly. These two different styles for approaching the world seem to be representative of the general personality pictures of the Bowery and the non-Bowery alcoholic groups respectively. The tachistoscope seems valuable in differentiating these types.

The Kagan and Moss Model

Kagan and Moss base their model about different conflicts in the normal male and female in large part upon the findings of their tachistoscopic study using the scenes we have used in the present study. In their research the males were shown scenes in which a male figure was depicted as the aggressive or dependent person; female subjects were shown scenes where a female figure was depicted as the aggressive or dependent person.

Thus, in a sense different pictures were shown to their male and female subjects depending upon their sex.

In the present study, where only male subjects were used, both sets of pictures, that is, showing both males and females in identical aggressive and dependent scenes were used.

The results show that the male subjects in the present study replicated the same pattern of differences that Kagan and Moss found with a two sex sample. Our male subjects had higher recognition thresholds to report females as aggressive than males as aggressive; and they also had higher recognition threshold scores to identify males as dependent as compared to identifying females as dependent. The control group displayed this same pattern in an even more pronounced fashion than the alcoholic groups.

It is only Group I which has higher aggression threshold scores for scenes with males aggressive than for scenes with females aggressive under the frustrating condition. Only Group II, has higher threshold scores for females in a dependent position than for males in a dependent position. Thus, it is only the Bowery groups which show some deviation from the overall pattern. Perhaps their lack of perceptual conformity to the pattern is indicative of some aspect in their personalities which might be studied further. It is possible

that faulty identification, as has been mentioned in the alcoholic literature (Halpern, 1946; Meer and Amon, 1963) might be of crucial importance here.

What are the implications of the general finding that males can replicate the same pattern which was attributable to sex differences in the subjects? When Kagan and Moss speak of conflicts around non-appropriate sex-role expectations as an avenue of conflict specific to one's sex, they omit mention of the attitudes and expectations of the opposite sex in accordance with the same societal expectations that gave rise to the individual's own conflicts. It seems from the present data as if men incorporate attitudes about other people in society also. Thus the men have standards about how women and men are expected to behave. Any deviation from societal standards are possible sources of conflict. To clarify this dimension, further study of normal men and women and other pathological groups on both sets of pictures is warranted. It may be that the attitudinal factors are the major explanation of these results. The deviation shown by the Bowery groups may reflect confusion in their attitudes about the appropriate behavior of the sexes.

Halpern, F., Psychological test results: studies of compulsive drinkers, Quart. J. Stud. Alc., 1946,6, 468-79.

Meer and Amon, op. cit.

Limitations

The Question of the Relative Roles of Conflict Over Dependency and Conflict Over Aggression in the Etiology of Male Alcoholism

As stated previously, the information available in the present study concerns only the status of dependency and aggression conflicts in the already established alcoholic; the etiological role of these conflicts can only be inferred. Inferences about the etiological conflicts are far removed from the data of the study. In fact, it is difficult to assess if there is conflict in the current personality constellation, and even this has to be inferred as a hypothetical construct.

The data from the study are recognition threshold scores for scenes depicting aggression and dependency situations. We had originally assumed that higher threshold scores were manifestations of conflict on the basis of previous research reports. In addition, we have suggested that lower threshold scores than the control group may also be manifestations of conflict.

The most simple and parsimonious approach would be to assume that low scores reflect lack of conflict. However, this simple solution does not appear adequate for our data for we have no logical ground for assuming that controlled or remitted alcoholics should show less conflict than the control group.

The problems in interpreting the results stem from the confounding of variables and the imprecision of our measuring instruments. More direct measures of actual need might help clarify the picture.

The group which has the lowest scores is also sober the longest, reports a longer history of drinking, comes from a higher socio-economic status than the other alcoholics, has received intensive treatment, is showing more measures of social competence than the other alcoholics and perhaps the control group. This whole constellation of events is correlated with lower threshold scores for the affective scenes.

The possible meanings of the low threshold scores for the affective scenes are:

1) Evidence of less conflict than normals because of either: a) low needs, or

b) same level of needs but has the ability to express, give into and satisfy the needs;

2) Conflict which is not actually lower but which is handled differently than normals because of:

a) paranoid-like defenses of hypersensitivity and suspiciousness, or

b) different cognitive styles not related to a specific defensive system, that is a generally more analytical and quicker response to the Environment which is not in the service of defense

c) emotional reorganization or "cure" through therapy and sustained sobriety.

d) the learned response due to the teachings of A.A. and therapy.

The evidence at present cannot differentiate among these alternatives.

Conflict Over Dependency: The only finding for the dependency scenes is that Group III has the lower threshold scores and that these are significantly different from both the Bowery groups and the non-alcoholic group. In view of the above discussion, we can say that it is not clear what these low scores mean. However, the data do show that the Bowery alcoholics do not differ from the control group in their recognition threshold scores for the dependency scenes. Thus for the Bowery alcoholics there is no reason to assume that dependency conflict is more of a problem than it is for normals. If dependency conflict is of etiological significance, we can say that its role appears not to be major once the person is established as an alcoholic on the Bowery.

Conflict Over Aggression: The data show that all the alcoholics differ from the control group in their recognition threshold scores for the aggressive scenes. The fact that the Bowery alcoholic groups have significantly higher recognition threshold scores than the control group is an indication that this group of alcoholics is more conflicted over aggression than the controls.

We can only consider Group III's low threshold scores, which are significantly lower than both the control group and the Bowery alcoholics, in the same light as outlined above. However, there are two dimensions

which might suggest that Group III is conflicted over aggression. The first is that there are definite findings of an aggression conflict in the Bowery alcoholic group. This gives evidence that conflict over aggression exists in at least some alcoholics. The second is that hypothesizing that Group III is in fact conflicted over aggression but is handling the aggression differently is consistent with the findings that Mathias reported. These facts considered together lead us to suggest that conflict over aggression has not been dismissed as a current force in the personality constellation of all the alcoholic groups. What is of significance is the place that this dynamic plays in the personalities of these two types of alcoholics.

As seen the Bowery alcoholic blocks or denies or inhibits when confronted with the aggressive stimuli. The trend found with frustration, which shows that the Bowery alcoholics are inhibited from making an aggressive response even more when frustrated, supports the contention that aggressive stimuli or impulses result in a lessened ability to act quickly and decisively.

On the other hand, the non-Bowery alcoholic shows a facility in expressing aggressive responses when frustrated; though not significant, this group had a decrease in thresholds with frustration. This trend

coupled with the low thresholds in general and the description of A.A. members found in the literature, suggests that the aggression of this group is easily expressed and that perhaps they are primed to respond to affective aggressive stimuli. Thus, aggression conflicts may be dispelled by quick action. In one sense, both groups may be using the mechanism of denial- the Bowery groups by denying the aggressive tendencies or impulses, and the non-Bowery group by denying a conflict or problem with aggression.

That conflict is found in the present symptom picture would seem to suggest that the conflict is deep-rooted and may have had etiological significance.

Summary and Conclusions

The research was an attempt to clarify the roles played by conflict over aggression and dependency in the etiology of male alcoholism by assessing first whether these conflicts were more prevalent in male alcoholics than in normal men. The verbal response to tachistoscopically-presented stimuli was used as an index of conflict. In addition to measuring recognition thresholds for aggressive, dependent and neutral scenes, an experimental manipulation of the recognition thresholds for aggressive scenes was attempted by introducing a frustration. The relation of frustration to aggression in alcoholic males was explored. Frustration was expected to increase the conflict over aggression in alcoholic subjects and to result in higher thresholds. For normal subjects, frustration was expected to facilitate the expression of aggressive responses and to result in lower thresholds.

All subjects were matched for age and educational level. The groups were selected so as to also study the effects of seeking or not seeking help and socioeconomic factors.

The subjects consisted of 80 English-speaking men ranging from 24 to 48 years of age. Sixty were chronic alcoholics and 20 were non-alcoholics. The alcoholics were divided into three groups: Bowery seeking help; Bowery not-seeking help; and non-Bowery seeking help. Each group was divided into matched halves- tested under a frustrating or non-frustrating condition.

The hypothesis that the alcoholics would not differ from the non-alcoholics in their recognition threshold scores for neutral stimuli was supported indicating that alcoholics appear to be similar to non-alcoholics in their ability to identify tachistoscopically-presented non-affective stimuli.

The three alcoholic groups, considered as a whole, did not have recognition threshold scores for the dependency and aggressive scenes that were significantly different from the non-alcoholic group. However, very great differences did exist among the sub-groups of alcoholics themselves. Significant differences were also found between the subgroups of alcoholics and the control group on scores for the aggressive and dependency scenes. These differences are obscured if alcoholics are studied as one uniform clinical group.

The Bowery alcoholics had mean recognition threshold scores for the dependency scenes that were similar to those of the non-alcoholics, but contrary to the hypothesis, the non-Bowery alcoholic group had significantly

lower recognition threshold scores than both the Bowery alcoholics and the control group.

Alcoholics were predicted to show more conflict over the expression of aggression than non-alcoholics as reflected in higher recognition threshold scores for aggressive scenes. It was found that the three alcoholic groups did not respond consistently to the aggressive stimuli. The non-Bowery alcoholic scored significantly lower than the two Bowery groups and also the control group. In addition, Bowery alcoholics were significantly higher than the control group as predicted.

The frustration did not lead to statistically significant results. However the trends showed that the two Bowery groups performed in the predicted direction by having higher recognition thresholds for aggressive scenes under frustration than under the non-frustration condition. The control group also performed in the predicted manner to frustration. The reaction of the third alcoholic group, the non-Bowery group, was contrary to hypothesis. This group had lower scores under the frustration condition than under the non-frustration condition, but this difference is not statistically significant either. It was concluded that the frustration served to highlight the differences among the groups, but that a stronger frustration might be necessary for the hypothesis to be adequately tested.

The results showed that sex of the dominant figures in the scenes influenced recognition threshold scores for both alcoholic and non-alcoholic groups. Lower recognition thresholds were found for scenes showing females as dependent than for scenes showing males as dependent. Also, lower recognition thresholds were found for scenes showing males as aggressive than for scenes showing females as aggressive. The only deviation from these significant findings occurred with Bowery alcoholics. The implications for one's own sex-role identification and that of the opposite sex were discussed.

Demographic variables such as age and education did not appear to be related to any of the recognition threshold scores. However, variables relating to drinking itself, such as the proportion of one's life spent drinking and the duration of sobriety, were related to the recognition threshold scores for affective stimuli. Recognition thresholds for aggressive scenes appear to be negatively related to duration of sobriety, whereas recognition thresholds for dependency scenes appear to be negatively related to proportion of life spent drinking. The groups differed in their sobriety and chronicity of drinking. The non-Bowery alcoholics reported the longest duration of sobriety and also the longest history of problem drinking than the Bowery groups. The validity of the

report of a longer history of drinking by the non-Bowery group was discussed. Chronicity or history of drinking does not appear to sufficiently account for the differences on recognition thresholds for dependency scenes.

The duration of sobriety was discussed in terms of its relation to conflict over aggression. It was suggested that the alcoholic groups differing in duration of sobriety also differed in their manner of handling their aggression. The question of diagnostic differences between the Bowery and non-Bowery groups was discussed.

A limiting factor of the research concerns the use of recognition thresholds as indices of conflict. Implicit in the use of these scores is the assumption that conflict results only in a delay, either in perceptual processing or verbal reporting. It is suggested that any deviation from the scores of the control group may be an index of conflict. It is possible that conflict may manifest itself in heightened sensitivity and alertness to conflictual material; this would result in lowered recognition threshold scores. The limitation of defining longer recognition thresholds as an index of conflict is that the focus is only upon one technique for handling conflict. It is suggested that the Bowery and non-Bowery alcoholic groups have different approaches to conflict.

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APPENDIX

Appendix A: Age and Educational Level of the Matched Groups

<u>IA*</u>	<u>IB*</u>	<u>IIA*</u>	<u>IIB*</u>	<u>IIIA*</u>	<u>IIIB*</u>	<u>IVA*</u>	<u>IVB*</u>
28-10	26-10	29-10	25-8	28-9	28-9	29-9	25-10
30-11	30coll	30-10	37-10	30-10	30-10	24-HS	38-10
33-HS	33-HS	33-HS	38-8	34-10	33coll	33-HS	30-HS
34-9	38-10	30-9	36-7	30-8	36-10	34-9	36-8
37-HS	34-HS	37coll	28coll	37coll	38coll	37coll	31coll
45-9	42-9	46-HS	43-10	42-HS	40-HS	43-11	43-HS
42-9	46-8	45-10	45-9	41-10	43-9	44-10	46-10
41coll	41-HS	48-HS	42-HS	48-HS	37coll	44coll	39coll
46-HS	41-HS	44-HS	42-HS	46-HS	48-HS	45-HS	37coll
48coll	47coll	42coll	47coll	48coll	44coll	47coll	47coll

* A refers to the non-frustration condition; B refers to the frustration condition.

I refers to the Bowery group not seeking help; II refers to the Bowery group seeking help; III refers to the non-Bowery alcoholic group seeking help; IV refers to the non-alcoholic control group.

The age is the first recorded entry for each person. The second entry is the years of completed schooling. HS indicates that the person graduated HS but did not receive any advanced schooling. Coll. indicates that some college education was completed but does not indicate graduation.

APPENDIX B



Figure 1. Stimuli Used in the Tachistoscopic Task

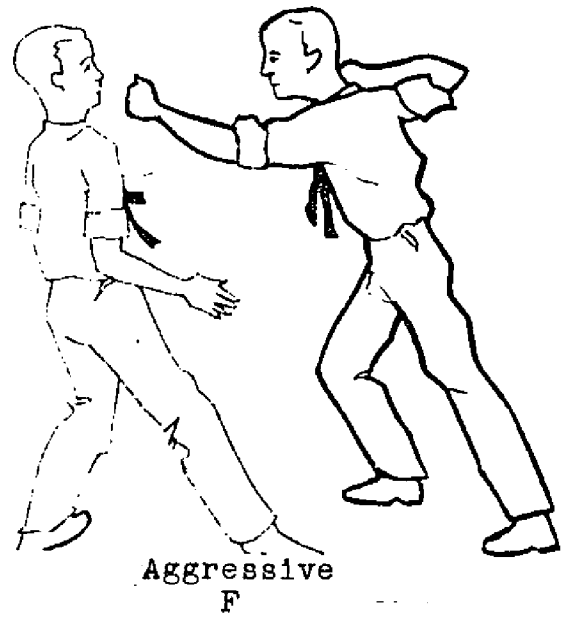
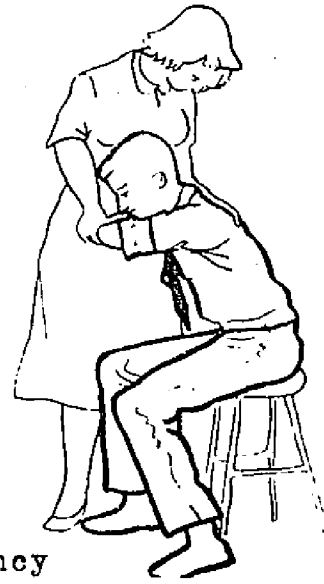


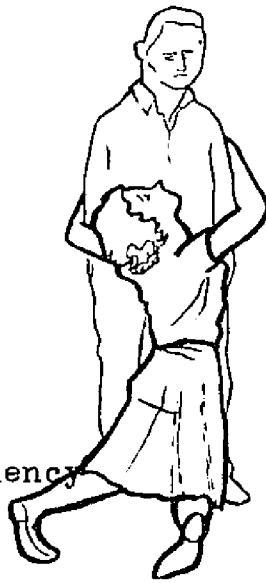
Figure 1. Continued



Dependency
A



Dependency
U



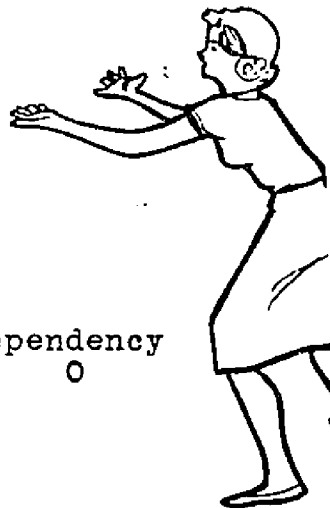
Dependency
R



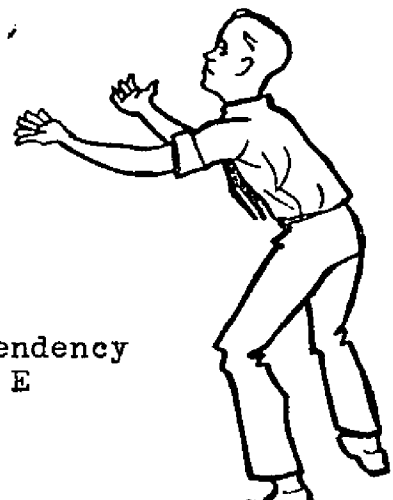
Dependency
M

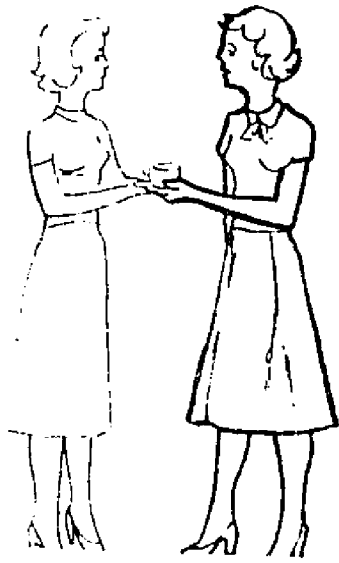


Dependency
O

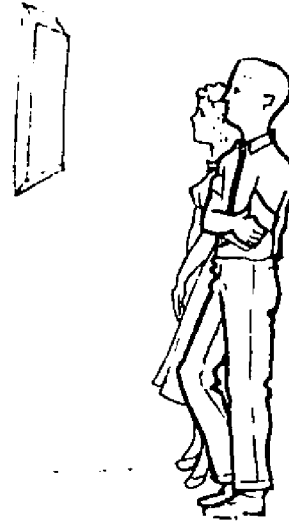


Dependency
E





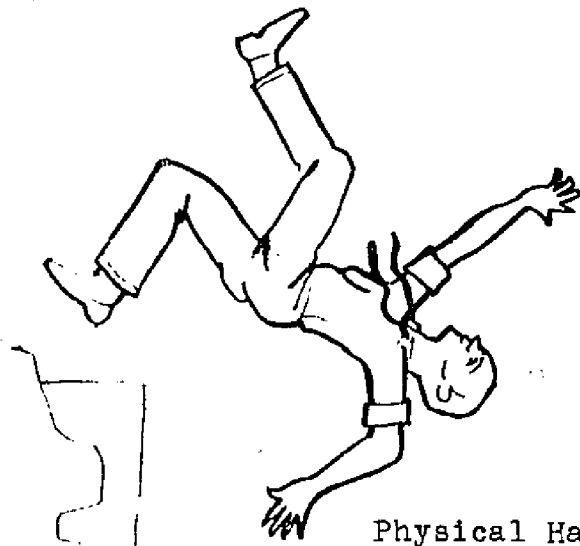
Neutral
G



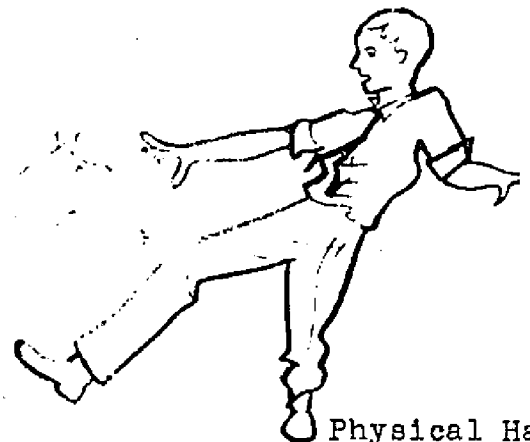
Neutral
K



Neutral
H



Physical Harm
C



Physical Harm
J

APPENDIX C: KMTRT mean scores and
intercorrelations

TABLE /

MEANS FOR EACH OF THE EIGHT GROUPS AND MEANS FOR THE FOUR GROUPS
ON EACH OF THE KMTRT SCENES

	IA	IB	I	IIA	IIB	II	IIIA	IIIB	III	IVA	IVB	IV	OVERALL MEAN
T	6.1	7.2	6.7	6.9	6.9	6.9	6.3	4.2	5.3	5.9	5.3	5.6	6.23
D	7.2	7.1	7.2	7.5	7.1	7.3	7.3	6.6	7.0	7.0	6.6	6.8	7.05
S	7.7	7.7	7.7	6.4	7.7	7.1	5.7	5.7	5.7	7.1	6.5	6.8	6.81
P	7.9	7.6	7.8	7.3	7.2	7.3	6.8	6.1	6.5	7.4	6.5	7.0	7.10
B	7.7	7.5	7.6	7.5	7.2	7.4	6.6	5.2	5.9	7.2	6.2	6.7	6.89
L	8.0	7.5	7.8	7.5	8.0	7.8	7.2	7.4	7.3	7.3	7.7	7.5	7.58
F	3.7	4.7	4.2	2.3	3.5	2.9	2.5	2.1	2.3	3.0	3.7	3.4	3.19
I	3.8	3.6	3.7	3.9	4.4	4.2	2.9	2.8	2.9	3.8	4.6	4.2	3.73
A	5.0	4.8	4.9	6.1	4.8	5.5	3.8	5.7	4.8	4.2	6.2	5.2	5.08
U	5.2	8.0	6.6	5.0	5.9	5.5	3.4	4.3	3.9	6.3	7.1	6.7	5.65
R	6.7	7.7	7.2	6.7	5.8	6.3	5.8	6.4	6.1	5.9	6.9	6.4	6.49
M	6.8	7.3	7.1	5.6	7.7	6.7	5.8	6.0	5.9	7.0	7.4	7.2	6.70
O	7.1	6.4	6.8	5.8	6.9	6.4	5.0	3.3	4.2	5.9	6.1	6.0	5.81
E	7.5	7.3	7.7	7.5	7.4	7.5	5.9	5.3	5.6	7.1	6.8	7.0	6.91
G	4.4	4.4	4.4	4.6	4.9	4.8	5.1	3.4	4.3	4.8	4.6	4.7	4.53
H	5.0	4.9	5.0	4.6	4.8	4.7	5.7	5.1	5.4	4.2	5.4	4.8	4.96
K	4.7	4.1	4.4	3.2	4.0	3.6	4.0	3.4	3.7	5.1	3.9	4.5	4.05
C	3.4	2.1	2.8	2.7	2.0	2.4	1.2	1.7	1.5	2.2	2.2	2.2	2.19
J	2.4	2.8	2.6	3.0	2.9	3.0	2.7	2.4	2.6	3.4	3.6	3.5	2.90

A refers to the Non-Frustration Condition

B refers to the Frustration Condition

I refers to Bowery alcoholics, not seeking help.

II refers to Bowery alcoholics, seeking help.

III refers to non-Bowery alcoholics, seeking help.

IV refers to the non-alcoholics.

TABLE 2
 INTERCORRELATION BETWEEN KMPRT AGGRESSIVE SCENES

	T	D	S	P	L	I	B
T							
D	.41**						
S	.02	.02					
P	.08	.21	.57**				
L	.05	.09	-.04	.14			
I	.21	.07	.00	.04	-.20		
B	.23*	.04	.27*	.22*	.40**	-.17	
F	.19	-.16	.26*	.14	.03	.20	.09

Note: The pictures are coded into letters; See page for appropriate description and designation of the letters.

* A p value of .22 significant at the .05 level.

** A p value of .28 significant at the .01 level.

TABLE 3

INTERCORRELATION OF KMTRT SIX DEPENDENCY SCENES

	A	U	R	M	O	E
A						
U	.33**					
R	.36**	.22*				
M	.10	.31	.41**			
O	.20	.36**	.14	.32**		
E	.15	.21**	.08	.07	.42**	

Note: The pictures are coded into letters. See page for appropriate description of the pictures.

* A p value of .22 is needed for significance at the .05 level.

**A p value of .28 is needed for significance at the .01 level

TABLE 4

CORRELATION BETWEEN EIGHT KMTRT AGGRESSIVE SCENES AND SIX KMTRT DEPENDENCY SCENES

	A	U	R	M	O	E
T	-.01	.06	.06	.25*	.32**	.21
D	-.06	-.10	-.12	.04	.08	.02
S	-.01	.14	.14	.29**	.37**	.26*
P	.03	.16	.13	.25*	.21	.23*
L	.11	.09	-.06	.02	.13	.13
I	.26*	.23*	.28**	.16	.30**	.21
B	-.05	.02	.17	.06	.17	.10
F	.07	.32**	.10	.27*	.33**	.25*

Note: The pictures are coded into letters. See page for an appropriate description of the pictures.

* A p value of .22 is needed for significance at the .05 level.

** A p value of .28 is needed for significance at the .01 level.

TABLE 5

RELATIONSHIP BETWEEN KMTRT DERIVED AGGRESSIVE, DEPENDENCY AND NEUTRAL SCORES WITH EACH OTHER AND INDIVIDUAL SCENES

	TOTAL AGG.	FA*	MA'	TOTAL DEP.	FD'	MD'	NEUTRAL
TOT.AGG.							
FA	.71**						
MA	.88**	.36**					
TOT DEP	.50**	.38**	.43**				
FD	.39**	.32**	.33**	.87**			
MD	.48**	.32**	.43**	.87**	.52**		
NEUTRAL	.01	-.04	.08	.10	.05	.12	
T	.59**	.35**	.59**	.22*	.17	.21	.19
D	.36**	.58**	.11	-.04	-.05	-.04	.01
S	.55**	.27*	.57**	.29**	.23*	.31**	-.06
P	.57**	.61**	.38**	.26*	.17	.28**	-.14
L	.10	.22*	.13	.12	.09	.13	-.01
I	.44**	.61**	.17	.39**	.40**	.25*	.03
B	.41**	.12	.56**	.12	.12	.09	.00
F	.55**	.14	.70**	.36**	.24*	.40**	.10
A	.07	.16	.02	.62**	.78**	.29**	.04
U	.30**	.21	.25*	.74**	.44**	.85**	.11
R	.24*	.17	.20	.55**	.68**	.32**	-.01
M	.38**	.26*	.36**	.57**	.37**	.61**	.16
O	.54**	.35**	.50**	.66**	.64**	.50**	.17
E	.39**	.28**	.34**	.51**	.31**	.60**	-.03

* FA- Female aggressor; MA- Male aggressor; FD- Female dependent; MD- Male dependent

* An r of .22 is needed for significance at the .05 level.

** An r of .28 is needed for significance at the .01 level.

Relationships Among the Recognition Threshold Scores

There are a total of 21 threshold scores being considered. Of the 21 variables and the 220 correlations computed, there were 106 significant correlations. This number of correlations is well above chance expectations.

Intercorrelations among Recognition Threshold Scores for Eight Aggressive Scenes.

Of the 28 correlations computed, only 7 (25%) were statistically significant. The significant correlations that were found were low in magnitude. The strongest correlations were between matched-sex pairs of scenes: S and P (.57); D and T (.41); and L and B (.40). One matched-sex pair of scenes (I and F) were not significantly correlated with each other. Though, the matched pairs resulted in the highest correlations, they seem to represent only a small percentage of the shared variance. Though not reaching a statistically significant level, some negative correlations were found between the recognition threshold scores for some aggressive scenes.

The recognition threshold scores for aggressive picture B (a man threatening an older man) is more related to the threshold scores for other aggressive scenes than was its matched female counterpart (L). Picture B had significant correlations with four other aggressive pictures, whereas picture L had none.

In general it cannot be said that there was a high degree of relationship between the threshold scores within the aggressive area, thus suggesting independence between these threshold scores subsumed under the same category.

The Eight Aggressive Scenes and their Correlations with Other Recognition Threshold Scores

The recognition threshold scores for seven of the eight aggressive scenes were related to the total recognition threshold scores for aggressive scenes. Picture L (a woman threatening an older man) was not. Five of the aggressive scenes were related to the dependency scenes and to the mean recognition threshold score for the six dependency scenes.

The aggressive scenes I and F (which show young adults aggressive to the same sex young adult) had more relationships with the threshold scores for the dependency scenes than did any of the other aggressive scenes. It will be recalled that this pair of aggressive scenes was not correlated with each other or any of the other aggressive scenes.

There was no relationship between any of the aggressive scenes with the neutral scenes.

The aggressive pictures which involved threatening an older man (L and B) had no significant correlations with the threshold scores for dependency scenes, whereas the aggressive pictures which show a young adult who is

threatening an older woman (S & P) have 10 significant positive relationships with the recognition threshold scores for dependency scenes. This suggests that aggression toward an older woman is related to the recognition threshold scores for dependency scenes.

The Intercorrelations of the Recognition Threshold Scores for the Six Dependency Scenes

Of the 15 possible relationships, 9 of them were significant. Thus the recognition threshold scores for the dependency scenes were more highly interrelated than were the recognition threshold scores for the aggressive scenes.

The significant correlations between each of the matched-sex pairs of pictures account for the highest correlations found. The high degree of intercorrelation between the dependency scenes suggest that the pictures are measuring similar things.

The Six Dependency Scenes and Their Relationship to Other Recognition Threshold Scores

Most of the dependency scenes were significantly correlated with both the recognition threshold scores for aggressive and dependency scenes. There were no significant relationships between any of the dependency scenes and the recognition threshold scores for the neutral scenes.

The Mean Recognition Threshold Scores

The total mean recognition threshold score for the eight aggressive scenes, which was used to test hypotheses 3 and 4, was found to be related to 7 of the 8 aggressive scenes and 5 of the 6 dependency scenes. It was related

to the mean recognition threshold score for the 6 dependency scenes but was not related to the mean recognition threshold score for the neutral scenes. Thus, there is evidence that the mean recognition threshold scores for the affective scenes share some common variance.

The mean recognition threshold scores for the aggressive scenes were broken down into the scores for scenes showing females in an aggressive position and for males shown in an aggressive position. A .36 correlation (significant at the .01 level) was found between these two scores indicating that they are measuring different things. The threshold scores for scenes showing males as aggressive were more highly related to the threshold scores for the scenes showing males as dependent than they were to the threshold scores for scenes showing females as dependent. Thus, this is another source of evidence which suggests that the sex of the stimulus figure effects the recognition threshold scores.

The mean recognition threshold scores for the dependency scenes was related to 6 of the aggressive scenes. The to aggressive scenes that it was not related to involve scenes showing women as aggressive. Ease in reporting the woman as the aggressive figure is not related to ease in reporting the dependency scenes.

In summary, it can be seen that there is considerable overlap between the recognition threshold scores for the dependency and aggressive scenes but that there is none with the neutral scenes. Sex of the dominant figure

and also sex of the object of the aggression appear to effect the relationships. Threshold scores for scenes showing aggression to an older woman was more highly related to the recognition threshold scores for dependency scenes, whereas threshold scores for aggression to an older man was not. Threshold scores for scenes showing males as aggressive was related to threshold scores for scenes showing males as dependent but were not related to the threshold scores for scenes showing females as dependent. Threshold scores for reporting a woman as the aggressor was not related to the scores for the dependency scenes, whereas the scores for the male as the aggressive person was. In addition, the scores for reporting aggression to a peer were also related to the scores for the dependency scenes.

Biography

Sharon Donna London was born in Brooklyn, New York on April 22, 1939. Education was primarily obtained with the City University of New York with the Bachelor of Arts degree awarded from Brooklyn College in 1960, and the Master of Arts degree awarded from City College in 1962. She entered the Ph.D. Program in Psychology at the City University of New York in 1966. Her major interests have been in Psychology, specializing in experimental psychopathology, clinical, personality research, and cognitive development.

Miss London has extensive research and clinical experience in the field of Psychology. From 1959 to 1961 she worked as a research assistant for the Institute of Developmental Studies. From 1961 to 1965 she worked as a Junior Research Psychologist at the Psychopharmacology Research Unit at Downstate Medical Center of the State University of New York. From 1965 to 1966 she worked as Senior Clinical Psychologist at Rockland State Hospital. From 1966 to the present she has been working with the New York City Department of Social Services as a Psychologist specializing in research and treatment of alcoholics.

Publications

Freedman, N., Engelhardt, D., Mann, D., Margolis, R., & London, S., Communication of body complaints and paranoid symptom change under conditions of phenothiazine treatment, J. Personality & Social Psychol., 1965, 1, 310-318.

The subjects consisted of 80 English-speaking men ranging from 24 to 48 years of age. Sixty were chronic alcoholics and 20 were non-alcoholics. The alcoholics were divided into three groups: Bowery seeking help; Bowery not-seeking help; and non-Bowery seeking help. Each group was divided into matched halves- tested under a frustrating or non-frustrating condition.

The hypothesis that the alcoholics would not differ from the non-alcoholics in their recognition threshold scores for neutral stimuli was supported indicating that alcoholics appear to be similar to non-alcoholics in their ability to identify tachistoscopically-presented non-affective stimuli.

The three alcoholic groups, considered as a whole, did not have recognition threshold scores for the dependency and aggressive scenes that were significantly different from the non-alcoholic group. However, very great differences did exist among the sub-groups of alcoholics themselves. Significant differences were also found between the subgroups of alcoholics and the control group on scores for the aggressive and dependency scenes. These differences are obscured if alcoholics are studied as one uniform clinical group.

The Bowery alcoholics had mean recognition threshold scores for the dependency scenes that were similar to those of the non-alcoholics, but contrary to the hypothesis, the non-Bowery alcoholic group had significantly

lower recognition threshold scores than both the Bowery alcoholics and the control group.

Alcoholics were predicted to show more conflict over the expression of aggression than non-alcoholics as reflected in higher recognition threshold scores for aggressive scenes. It was found that the three alcoholic groups did not respond consistently to the aggressive stimuli. The non-Bowery alcoholic scored significantly lower than the two Bowery groups and also the control group. In addition, Bowery alcoholics were significantly higher than the control group as predicted.

The frustration did not lead to statistically significant results. However the trends showed that the two Bowery groups performed in the predicted direction by having higher recognition thresholds for aggressive scenes under frustration than under the non-frustration condition. The control group also performed in the predicted manner to frustration. The reaction of the third alcoholic group, the non-Bowery group, was contrary to hypothesis. This group had lower scores under the frustration condition than under the non-frustration condition, but this difference is not statistically significant either. It was concluded that the frustration served to highlight the differences among the groups, but that a stronger frustration might be necessary for the hypothesis to be adequately tested.

The results showed that sex of the dominant figures in the scenes influenced recognition threshold scores for both alcoholic and non-alcoholic groups. Lower recognition thresholds were found for scenes showing females as dependent than for scenes showing males as dependent. Also, lower recognition thresholds were found for scenes showing males as aggressive than for scenes showing females as aggressive. The only deviation from these significant findings occurred with Bowery alcoholics. The implications for one's own sex-role identification and that of the opposite sex were discussed.

Demographic variables such as age and education did not appear to be related to any of the recognition threshold scores. However, variables relating to drinking itself, such as the proportion of one's life spent drinking and the duration of sobriety, were related to the recognition threshold scores for affective stimuli. Recognition thresholds for aggressive scenes appear to be negatively related to duration of sobriety, whereas recognition thresholds for dependency scenes appear to be negatively related to proportion of life spent drinking. The groups differed in their sobriety and chronicity of drinking. The non-Bowery alcoholics reported the longest duration of sobriety and also the longest history of problem drinking than the Bowery groups. The validity of the

report of a longer history of drinking by the non-Bowery group was discussed. Chronicity or history of drinking does not appear to sufficiently account for the differences on recognition thresholds for dependency scenes.

The duration of sobriety was discussed in terms of its relation to conflict over aggression. It was suggested that the alcoholic groups differing in duration of sobriety also differed in their manner of handling their aggression. The question of diagnostic differences between the Bowery and non-Bowery groups was discussed.

A limiting factor of the research concerns the use of recognition thresholds as indices of conflict. Implicit in the use of these scores is the assumption that conflict results only in a delay, either in perceptual processing or verbal reporting. It is suggested that any deviation from the scores of the control group may be an index of conflict. It is possible that conflict may manifest itself in heightened sensitivity and alertness to conflictual material; this would result in lowered recognition threshold scores. The limitation of defining longer recognition thresholds as an index of conflict is that the focus is only upon one technique for handling conflict. It is suggested that the Bowery and non-Bowery alcoholic groups have different approaches to conflict.