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## Perceptual categorization of love and anger cues in high, medium, and low affiliation groups.

Laurence Louis Dayton  
*University of Massachusetts Amherst*

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Perceptual Categorization of Love and Anger  
Cues in High, Medium, and Low  
Affiliation Groups

Laurence L. Dayton

Thesis to be submitted to the Psychology Department  
in Partial Fulfillment of the Requirements for  
the Degree of Master of Science

University of Massachusetts, Amherst

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## Introduction

The purpose of this study is to determine whether perceptual categorizations of love and anger cues differ for high, low and medium affiliation groups of college students. In discussing affiliation, Schachter (1949, p. 1) states, "We have no precise idea of the circumstances that drive men either to seek one another out or to crave privacy, and we have only the vaguest and most obvious sort of suggestions concerning the kinds of satisfaction that men seek in company." As defined in the present investigation, affiliation means to "be loyal to friends, participate in friendly groups, do things for friends, form new friendships, make as many friends as possible, share things with friends, do things with friends rather than alone, form strong attachments, and write letters to friends" (Edwards, 1949, p. 11).

In part, the rationale for this investigation is based upon the notion that we learn rules and priorities for noticing and remembering things. These rules or priorities help us to group and transform stimulus materials of the environment. The rule that is used for grouping and transforming things that impinge upon us is probably dependent upon its priority, or upon its value for us. Rules having high priority or high value are more readily accessible for operating upon our knowledge and memory than rules of low



value. In other words, the rules that we use and which usually have high valuation serve as transformers through which impinging events are given psychological meaning. In this research, we are examining whether individuals of high, medium and low affiliation needs will make use of different rules for noticing and transforming ambiguous cues relating to love and anger. It is a basic assumption of this investigation that the noticing and translation of ambiguous love and anger cues is closely associated with affiliation need, or more specifically, the amount of social interaction which a person has experienced during the course of his life. It is further assumed that the amount of exposure one has to inter-personal relationships affects the amount of learning which takes place with regard to social cues.

### The Theory of Affiliation

In 1890, William James included among other instincts with which men are supposedly born, the one of sociability. In 1908, McDougall formulated the instinct of gregariousness, an instinct which did not produce, according to its creator, a well-delineated emotional concomitant. With Freud, Eros was posited as the life instinct, seen as constantly in flux and in conflict with its counterpart, Thanatos. Thus, concepts of sociability, gregariousness and Eros may be viewed as the forerunners of the affiliation need.

Murray (1938) derived the affiliation need from his studies conducted at the Harvard Psychological Clinic. Affiliation was conceived of as a manifest, secondary need defined as the forming of friendships and associations; greeting, joining and living with others; cooperating and conversing sociably with others; loving; and joining groups. Need affiliation was seen as "a positive tropism for people." In a questionnaire developed by Murray (p. 176), twenty statements were included as indicative of the affiliation need. Included among these twenty, were such statements as "I become very attached to my friends" and "I go out of my way just to be with my friends." Edwards (1954, p. 5) indicates that in developing the Edwards Personal Preference Schedule, the statements contained therein "and the variables that these statements purport to measure have their origin in a list of manifest needs presented by H. A. Murray...the names that have been assigned to the variables are those used by Murray." In developing the Edwards Personal Preference Schedule, statements have been scaled for social desirability. Statements which tap different needs, yet appear to be equal in terms of social desirability have been paired. Edwards (1953, p. 93) points out "If the subject is...forced to choose between the two items, his choice obviously cannot be upon the basis of the greater social desirability of one of the items." In



working with the needs contained within the Edwards Personal Preference Schedule, Edwards (1957, p. 2) has followed his premise that "The primary unit of personality description... is a statement about a person...A complete description of an individual's personality would consist of all statements that appropriately characterize him." Consequently, there is a need for affiliation when a subject evaluates highly or shows preference for certain types of activities, namely to do things with friends, etc. This need for affiliation is an inference which is based on such high valuing of activities by the subject, and reflects the idea that a person will strive to do things or to achieve in areas that he values highly. As Taylor (1960) indicates, the values with which people operate influence their behavior. High, medium and low affiliation subjects would accordingly differ in terms of their interpersonal relationships. In the present study, need affiliation is seen as reflected operationally in pertinent statements contained within the Edwards Personal Preference Schedule.

Another approach to the study of affiliation is exemplified by Schachter (1959, p. 2) who has concluded that affiliative tendencies mean "needs which can be satisfied only in inter-personal relations." He perceives such needs as extremely powerful, with "association with other people (being) a necessity for most of us" (p. 2). In his

research, "it has been demonstrated primarily that affiliative tendencies increase with increasing anxiety and hunger, and that, for anxiety, ordinal position of birth is an effective discriminator of the magnitude of the affiliative tendency...there can be little doubt that the state of anxiety leads to the arousal of affiliative tendencies" (p. 132). Schachter maintains that situations which are "ambiguous or uninterpretable in terms of past experience" as well as anxiety arousing, create pressures to "establish a social reality" (p. 128). The effect of others upon us at these moments is of great import. Thus the affiliative tendency is related to "a desire to be with others as a means of socially evaluating and determining the appropriate and proper reactions" (p. 132).

McClelland, Atkinson et al. (1953, p. 28) have propounded an "affective arousal" theory of motivation, where a motive is defined as "...the redintegration by a cue of a change in an affective situation." Thus, emotional states, e.g. pleasantness, unpleasantness, etc., dictate motives. As Atkinson (1958, p. 597) states, "A motive or need is a disposition to strive for a particular kind of goal state or aim, e.g. achievement, affiliation, power." He maintains that the "level of motive related imagery in thematic apperception...provides the index of the strength of a motive" (p. 605). He further states that "the imaginative

story tells us more about the state of motivation than does simple observation of the vigor of acts in a real-life situation; the imaginative story contains specific statements of aim and imagery related to the subtleties of feeling that are never directly observed in action...(it) defines the motive by describing the kinds of circumstances which produce affective reactions in the characters of the stories" (pp. 608-609). Thus, such needs as affiliation or achievement were felt to be measurable by thematic stories once the respective affective states, i.e. affiliation or achievement, had been aroused.

#### Empirical Studies of Affiliation

Studies in this area have not discussed affiliation operationally, but have viewed it as a whole, in general terms. The approach taken by the Edwards Personal Preference Schedule in which a score based upon values given to specific items is equated with affiliation, is avoided. Intensive examination of the affiliation need on a broad scale has been undertaken by Schachter (1959). In one experiment (1959, p. 16) anxiety was "manipulated by varying the fear of being shocked." High anxious groups were threatened with a powerful shock; low anxious groups were assured that the shock would be mild. The affiliative tendency was measured when the subjects were asked, prior to the shock session, whether they preferred to wait together with the others,



wait alone, or did not care one way or the other. Results indicated that anxiety "leads to the arousal of the affiliative tendency...and that affiliative desires increase with anxiety" (p. 19). In a follow-up study (1959) he found that subjects who chose to be with others, prior to being shocked, preferred to be with other subjects who were waiting to be shocked, rather than to be with other people who had nothing to do with the experiment. Thus, he concludes "Whatever the needs aroused by the manipulation of anxiety, it would seem that their satisfaction demands the presence of others in a similar state" (p. 24). In one additional study, Schachter (1959) used three experimental conditions of hunger; high, medium and low. He found that the more hungry was the subject, the more he desired to be with others. Consequently, it can be seen where the sole criterion for affiliation was an expressed desire on the part of subjects to be with others, preferably with others who are in the same or similar situation.

Examples of another experimental approach to affiliation are evident in the Shipley and Veroff studies (1952), discussed by Atkinson (1958), where affiliation refers to the fear arising from separation rather than a wish for the pleasure of companionship. Shipley and Veroff conducted "two studies...to obtain a valid measure of the affiliation motive by scoring stories written in response to pictures"

(p. 83). In one study, college fraternity brothers wrote stories in response to pictures after their affiliation motivation had been aroused by a sociometric technique in which each subject was asked to rate every other subject in the group using pre-selected adjectives such as conceited, cooperative, etc. A control group of college fraternity brothers wrote stories after taking a food preference test. In the second study, college freshmen rejected from fraternities wrote stories in response to pictures, and college freshmen accepted by fraternities did the same.

Each story was scored for imagery, unrelated imagery, need, instrumental activity, goal anticipation, obstacle, affective goal state and thema, all with regard to affiliation. The results of the first study indicated that the groups whose affiliation motivation had been aroused gave significantly more affiliation responses than did the control group. In the second study, the rejected freshmen gave significantly higher affiliation scores on related items, than did the accepted freshmen. Thus, both studies show need affiliation to be greatest in groups which fear rejection or actually are rejected.

Along the same lines, Atkinson, Heyns and Veroff (1954) as discussed by Atkinson (1958, p. 103) found that "behavioral sequences dealing with attempts to establish, maintain or restore positive affective relationships with



other persons occurred more frequently in the imaginative stories of the group in which need affiliation had been aroused." These latter studies, therefore, attempted to manipulate the general state of subjects in order to arouse the affiliation need. They also attempted to derive need affiliation indices from thematic apperception test stories.

In one further study, also discussed by Atkinson (1958), Atkinson and Walker (1956) found that high need affiliation subjects as determined by a thematic apperception task, saw faces which were flashed just under their recognition thresholds more readily than did a control group of subjects who were low in affiliation. In this study, an attempt was thus made to divide high and low affiliation subjects into separate groups, as opposed to previous studies in which no distinctions were drawn within the affiliation group.

### Perceptual Theory and Categorization

Bruner (1957) has postulated a view of perception in which sets of organized categories are constructed so that stimulus inputs may be sorted, identified and given meaning. These categorizations make for veridical perceptions. By perceptual readiness, Bruner refers to the "relative accessibility of categories to afferent stimulus inputs. The more accessible a category, the less the stimulus input required for it to be sorted in terms of the category, given a degree of match between the characteristics of the

input and specifications of the category."

Thus, persons having learned affiliative techniques or reactions which place them in high, medium and low categories should have different ways of sorting inter-personal cues of love and anger. Bruner also postulates a process in which the accessibility of categories is blocked by anxiety cues; thus, the learning of love and anger cues in a sense, hinges on the degree of anxiety present or absent in each situation. This can be related to Schachter's point in which higher affiliation was related to high anxiety; the greater the need for affiliation, the greater the amount of anxiety which the stimulus-input cues generate.

Klein (1956) holds a position similar to Bruner's in that he speaks of "executive intention," a process analogous to Bruner's categorizations. There is "an intention...to single out a particular quality (or quantity). In real life, such discriminations are usually part of a more behavioral intent, to do something to an object, to control or manipulate it in some respect, and hence, it is called here an executive intention." Men intend objects, single them out for attention as opposed to peripheral objects, or modes. It is through "cognitive attitudes" and their influence that phenomenal organization takes place and different types of discrimination occur. Just as there are hierarchies of dominance in terms of which physical objects will be

discriminated, so are there hierarchies of executive intentions, in which some are more conscious than others. However, it must be emphasized that there is no one-to-one correspondence between proximal stimulus and "report" (Bruner and Klein, 1960). Hence, it can be seen that familiarity with objects results from a learned exposure which permits categorizations of cues. Abstraction can then take place in which the quality or mode of behavior may be ascertained without the concrete objects being present which one is normally exposed to, as was reported by Heider and Simmel (1944), and Michotte (1950; 1952), and Buck and Kates (1958; 1959; 1963).

#### Empirical Studies Involving the Perception of Abstract Figures

Heider and Simmel (1944) developed a motion picture showing movements of three geometrical figures and a large stationary rectangle. The three geometrical figures consisted of a large triangle, small triangle and a circle. With regard to the rectangle, one section of it was capable of opening and closing, much like a door. The three geometric figures were maneuvered around and into the rectangle. Subjects were instructed to write down what they saw happening in the scenes, and to "interpret the movements of the figures as actions of persons." It was found that even a group which had been asked merely to describe the action



taking place in the scenes interpreted the geometric figures' movement in terms of "actions of animated beings, chiefly of persons." It was also found that certain "specific movement patterns created impressions of emotions and motives.

Michotte (1950; 1952) obtained similar results by manipulating two small colored rectangles along a horizontal plane. He found that subjects "did not content themselves with merely describing in an objective fashion what they saw...but often had an obvious tendency to complete these indications by comparisons with human or animal actions, comparisons which implied emotional states, attitudes, tendencies attributed to the objects" (p. 115). It was also found by Michotte that movement rather than size or shape gave rise to the impression of human or animal activity.

Kates and Buck (1958; 1959) presented ten different movement patterns using two rectangular objects. They found that one consistent movement pattern elicited love impressions from the subjects, while another consistent movement pattern elicited anger impressions from the subjects. When the movement pattern consisted of slow, approaching, simultaneous movement with stationary proximity when the rectangles met, the impression of love was obtained. When the movement pattern consisted of one rectangle moving quickly and the other moving slowly, successive movement,

lack of stationary proximity and lack of movement in physical contact, the impression of anger was obtained. It is seen, therefore, that college students can make emotional inferences on the basis of simulated cues.

Buck and Kates (1963) using four filmed movement patterns or scenes which had previously evoked impressions of love and anger in college students, compared good pre-morbid schizophrenics and normals on their ratings of the love and anger films. The groups were not differentiated on their ratings of the high love scene, but were differentiated significantly on their ratings of the high anger scene. Normals saw significantly more anger than did the schizophrenics. It was concluded that "the relatively adequate adjustment of the good pre-morbid in their pre-psychotic and sexual-social life probably contributed to the development of appropriate and accessible categories for dealing with love relations, resulting in just as veridical perception of the high love scene as the normals. The failure of the good pre-morbid to make correct inferences from the high anger scene when compared to the normals, probably indicated inappropriate category systems involving anger."

In a similar study, Buck and Kates (1963) compared poor and good pre-morbid schizophrenics and normals on their ratings of four scenes; high love, high anger, medium love



and medium anger. It was found that "the relatively greater adequacy of the good pre-morbid in their pre-psychotic sexual-social life, contributed to veridical perception on the high love scene, equal to that of normals, and superior to that of poor pre-morbid. On the high anger scene, good and poor pre-morbid were not as adequate as normals in their perceptual categorizations, probably reflecting the disruptive effects of anger in their perceptual categorizations and adjustment. Normals, good pre-morbid and poor pre-morbid were not differentiated on the medium love and on the medium anger scenes." Veridical perceptions, the authors note, result from categorizations whereby the individual orders the unique events of his life into equivalent classes, thus enabling him to make the response to these events in the future. Categorizing processes help to make a disorganized world more coherent and predictable.

Thus, in the present experiment, it is assumed that the love and anger scenes presented are sufficiently abstract and sufficiently related to the qualitative emotions of love and anger so as to be capable of eliciting impressions of these respective emotions from the subjects. It is further assumed that subjects will be able to recognize distinctions between high and medium love cues and distinctions between high and medium anger cues in a direct relationship with their affiliative needs. Because subjects with a

high affiliative need will probably have a highly accessible love category, they will tend to evaluate similarly both high and medium love cues. They will be perceptually ready for high love cues and find it rather difficult to make any fine distinctions between the high and medium love scenes. However, these high affiliative subjects will not be perceptually ready for anger cues and thus will search more carefully for a match between the proper category and cues, without a more accessible but inadequate category becoming matched with poorly fitting cues. Similarly, the low affiliation subjects will be perceptually ready for high anger cues and will not discriminate between high and medium anger scenes. But, they will be able to make accurate discriminations between high and medium love scenes because a readily accessible category is not available for a mismatch. Because medium affiliation subjects do not have any readily accessible category relating to love or anger, there will be better matches in their categorizations of high and medium love and anger scenes. Consequently, the ability to categorize love and anger cues seems to be a function of high, medium and low affiliation needs. It is this basic proposition which will be examined in this study.

### Statement of the Problem

The purpose of this study is to compare college students of high, medium, and low affiliation need on their responses to four scenes of simulated love and anger. On the basis of previous work (Buck, 1960; Buck and Kates, 1958; Kates and Buck, 1959; Buck and Kates, 1963) these scenes can be characterized as high love, medium love, medium anger and high anger. It has been found that college students and general medical patients more frequently rate the high love scene as a scene of love than they do the medium love scene. In the same manner, these same groups rated the high anger scene as a scene of anger more frequently than they did the medium anger scene. The cues in the high love and the high anger scenes are considered to present more consistent information than the mild anger and mild love scenes, thereby giving rise to more frequent ratings of love and anger.

### Hypotheses

1. High affiliation groups will be unable to significantly distinguish between high and medium love scenes.
2. High affiliation groups will be able to significantly distinguish between high and medium anger scenes.
3. Medium affiliation groups will be able to significantly distinguish between high and medium love scenes.
4. Medium affiliation groups will be able to significantly distinguish between high and medium anger scenes.
5. Low affiliation groups will be able to significantly distinguish between high and medium love scenes.
6. Low affiliation groups will be unable to significantly distinguish between high and medium anger scenes.



### Method

Subjects: 360 college students composed of 180 males and 180 females were used in the experimental conditions. An additional 50 college students were used in the correlational study.

Apparatus: A schedule consisting of 60 items taken from the Edwards Personal Preference Schedule was used. Included among these 60 items were 28 items from the need affiliation scale. Attached to this schedule was a 15 item rating scale by which the subjects rated the film which had been presented to them (Duck, 1960).

The four films used in the study were chosen on the basis of the results obtained by Duck (1960) and Kates and Duck (1958; 1959; 1963). The scenes of high love and high anger were found, in those studies to give consistent impressions of love and anger respectively. The scenes of medium love and medium anger showed definite "modal" tendencies in the direction of love and anger respectively, but less consistently than did the high love and high anger films.

The four films used were produced by photographing two rectangular objects four cm. high and two cm. wide. The movements of these objects are entirely on the horizontal plane. The color of the rectangles is white, and the background is black. The size, shape and color dimensions are



held constant. The rectangles were photographed at a distance of six feet.

The rectangle on the right side of the screen will be referred to as A, and the rectangle on the left side of the screen will be referred to as B.

1. Scene of medium love: A and B are initially 20 cm. apart. A begins moving at 14.3 cm/sec in the direction of B. B begins to move at 14.3 cm/sec after being reached by A, and the two continue to move in physical contact at the same speed in the same direction as A's initial movement. They move 10 cm. in physical contact. There is no pause at the time of contact.

2. Scene of high love: A and B are originally 30 cm. apart. A and B approach each other at 14.3 cm/sec., beginning at the same time and meeting after each has travelled 15 cm. The two rectangles remain together for two seconds, after which they move off towards the initial position of A, moving in physical contact. The final speed of A and B is the same as their original speed.

3. Scene of medium anger: A and B are initially 20 cm. apart. A begins moving at 14.3 cm/sec in the direction of B. A stops. B begins to move at 75 cm/sec., after being reached by A, in the same direction as A's initial movement. B moves 10 cm. There is no pause at the time of contact.

4. Scene of high anger: A and B are initially 20 cm.

apart. A begins moving at 75 cm/sec in the direction of B. A moves 20 cm. A stops. B begins to move at 14.3 cm/sec after being reached by A, moving in the same direction as A's original movement. B moves 10 cm. There is no pause at the time of contact.

Procedure: Four large groups of subjects were given the 60 item schedule derived from the Edwards Personal Preference Schedule. Following completion of this schedule, each single group was presented with one of the four scenes, i.e. scene of medium love. The subjects were then instructed to rate the movie in accordance with Section II of the schedule, as seen in the appendix. Each group was shown one film only.

Each of the four groups were then divided into two groups, one of males and one of females. The affiliation test was then scored for each of these eight groups. Fifteen high, medium, and low affiliation subjects were then obtained from each group. This was accomplished by selecting those subjects having the fifteen highest, the fifteen lowest and the fifteen average scores. Thus, each of the eight groups was sectioned into high, medium and low affiliation groups. To repeat, the four original groups were broken into male and female groups; these groups were further sub-divided into high, medium, and low affiliation groups, for a total of twenty-four groups composed of fifteen subjects each.

Tables 1 and 2 show the affiliation scores for males, females and total groups divided into high, medium and low affiliation groups. The experimental procedure is given in Table 3.

The fifteen item rating scale, completed by each subject evaluating the film, was scored. In scoring, items 1, 2, 5, 8, 9, 10, 12, 13, and 14 were reversed so that a rating of 7 was given a scale score of 1. The other items remained unchanged, so that a rating of 7 received a scale score of 7. The higher the total rating for all fifteen items, the more the rating pointed to high anger evaluation.

The 50 subjects used in the correlational study consisted of 35 females and 15 male undergraduates. Two weeks later, these same subjects were given the 60 item schedule to complete. This study was conducted for the purpose of correlating the affiliation scale of the Edwards Personal Preference Schedule and the affiliation items contained in the 60 item scale used for the study. It should be noted that names of subjects used in the main study and in the correlational study were not taken. For identification purposes, so that tests could be matched in the correlational study, the school identification numbers of the subjects were used.



## Results

The first hypothesis: The results of the test of significance between means obtained on rating scale data for high affiliation groups presented high and medium love scenes are found in Table 7. It was found that high affiliation groups were unable to offer significantly different ratings for high and medium love scenes. This finding supports the first hypothesis.

The second hypothesis: The results of the test of significance between means obtained on rating scale data for high affiliation groups presented high and medium anger scenes are found in Table 7. It was found that high affiliation groups were unable to offer significantly different ratings for high and medium anger scenes. While the second hypothesis was not supported at a significant level, the trend was in the predicted direction.

The third hypothesis: The results of the test of significance between means obtained on rating scale data for medium affiliation groups presented high and medium love scenes are found in Table 7. It was found that medium affiliation groups were able to offer significantly different ratings for high and medium love scenes. This finding supports the third hypothesis.

The fourth hypothesis: The results of the test of significance between means obtained on rating scale data for

medium affiliation groups presented high and medium anger scenes are found in Table 7. It was found that medium affiliation groups were able to offer significantly different ratings for high and medium anger scenes. This finding supports the fourth hypothesis.

The fifth hypothesis: The results of the test of significance between means obtained on rating scale data for low affiliation groups presented high and medium love scenes are found in Table 7. It was found that low affiliation groups were able to offer significantly different ratings for high and medium love scenes. This finding supports the fifth hypothesis.

The sixth hypothesis: The results of the test of significance between means obtained on rating scale data for low affiliation groups presented high and medium anger scenes are found in Table 7. It was found that low affiliation groups were unable to offer significantly different ratings for high and medium love scenes. This finding supports the sixth hypothesis.

Tables 1 and 2 contain the means and standard deviations for the affiliation scores. Table 3 illustrates the distribution of subjects throughout the experimental design. It can be seen that there were fifteen subjects used for each of twenty-four groups. Table 4 contains the means and standard deviations for the ratings given each of



the four scenes. It can be seen that the results of two "t" tests (high vs. medium love scenes and high vs. medium anger scenes) were significant in both instances. Tables 5 and 6 contain additional means and standard deviations of rating scores obtained for the four scenes.

An additional finding showed that the correlation between affiliation scores obtained on the Edwards Personal Preference Schedule and the 60 item scale derived from the Edwards Personal Preference Schedule was significant at greater than the .001 level, with a coefficient of .77. A Pearson-Product-Moment correlation was used.

TABLE 1

MEANS AND STANDARD DEVIATIONS OF HIGH, MEDIUM AND LOW  
AFFILIATION SCORES FOR MALE AND FEMALE SUBJECTS,  
SEPARATELY AND OVER-ALL.

		<u>Affiliation Scores</u>		
		<u>High</u>	<u>Medium</u>	<u>Low</u>
<u>Male</u>	Mean	16.6	11.5	6.5
	S. D.	1.9	1.8	1.9
<u>Female</u>	Mean	16.5	12.0	7.6
	S. D.	2.2	1.4	1.8
<u>Over-all</u>	Mean	16.5	11.7	7.1
	S. D.	2.1	1.3	1.6

TABLE 2

MEANS AND STANDARD DEVIATIONS OF HIGH, MEDIUM AND LOW  
AFFILIATION SUBJECTS ON THE AFFILIATION MEASURE  
RATING THE FOUR SCENES.

		<u>Affiliation</u>		
		<u>High</u>	<u>Medium</u>	<u>Low</u>
High Love Scene	Mean	16.6	11.7	6.5
	S. D.	2.1	1.0	1.5
Medium Love Scene	Mean	16.6	12.2	7.1
	S. D.	1.9	1.4	1.8
Medium Anger Scene	Mean	16.1	11.6	6.8
	S. D.	2.2	1.1	1.8
High Anger Scene	Mean	16.7	11.6	7.0
	S. D.	2.1	1.0	1.8





TABLE 4

TESTS OF SIGNIFICANCE BETWEEN THE MEANS OF THE MEDIUM  
LOVE AND HIGH LOVE, MEDIUM ANGER AND HIGH  
ANGER SCENES.

	<u>Mean</u>	<u>S. D.</u>
High Love Scene	41.59	11.47
Medium Love Scene	48.68	16.88
Medium Anger Scene	73.06	12.50
High Anger Scene	76.20	11.60
<hr/>		
	<u>T-Value</u>	<u>P-Value</u>
High vs. Medium Love Scenes	3.22	P= .01
High vs. Medium Anger Scenes	2.82	P= .01

TABLE 5

MEANS AND STANDARD DEVIATIONS FOR HIGH, MEDIUM  
AND LOW AFFILIATION GROUPS ON THE  
FOUR SCENES.

		<u>Mean</u>	<u>S. D.</u>
<u>High Affiliation Group</u>			
High Love Scene	(N=30)	42.1	11.4
Medium Love Scene	(N=30)	42.6	13.7
High Anger Scene	(N=30)	76.3	10.6
Medium Anger Scene	(N=30)	74.3	13.9
<u>Medium Affiliation Group</u>			
High Love Scene	(N=30)	43.2	10.4
Medium Love Scene	(N=30)	49.8	16.6
High Anger Scene	(N=30)	78.2	11.4
Medium Anger Scene	(N=30)	71.2	12.2
<u>Low Affiliation Group</u>			
High Love Scene	(N=30)	39.4	12.1
Medium Love Scene	(N=30)	53.6	18.1
High Anger Scene	(N=30)	74.1	12.7
Medium Anger Scene	(N=30)	73.7	11.2

TABLE 6

MEANS AND STANDARD DEVIATIONS FOR MALE AND FEMALE HIGH,  
MEDIUM AND LOW AFFILIATION GROUPS ON THE  
FOUR SCENES.

		<u>Mean</u>	<u>S. D.</u>
<u>Male High Affiliation Group</u>			
High Love Scene	(N=15)	45.46	12.43
Medium Love Scene	(N=15)	45.00	14.63
High Anger Scene	(N=15)	71.40	11.09
Medium Anger Scene	(N=15)	75.20	12.53
<u>Female High Affiliation Group</u>			
High Love Scene	(N=15)	38.80	9.99
Medium Love Scene	(N=15)	40.27	13.23
High Anger Scene	(N=15)	81.20	8.27
Medium Anger Scene	(N=15)	73.40	15.31
<u>Male Medium Affiliation Group</u>			
High Love Scene	(N=15)	44.80	10.77
Medium Love Scene	(N=15)	46.00	15.21
High Anger Scene	(N=15)	75.20	11.42
Medium Anger Scene	(N=15)	72.93	9.06
<u>Female Medium Affiliation Group</u>			
High Love Scene	(N=15)	41.67	10.58
Medium Love Scene	(N=15)	53.60	18.14
High Anger Scene	(N=15)	81.00	11.43
Medium Anger Scene	(N=15)	69.47	15.17

TABLE 6 (continued)

		<u>Mean</u>	<u>S. D.</u>
<u>Male Low Affiliation Group</u>			
High Love Scene	(N=15)	40.47	12.63
Medium Love Scene	(N=15)	48.60	15.81
High Anger Scene	(N=15)	70.00	12.83
Medium Anger Scene	(N=15)	69.13	12.48
<u>Female Low Affiliation Group</u>			
High Love Scene	(N=15)	38.34	12.48
Medium Love Scene	(N=15)	58.60	20.04
High Anger Scene	(N=15)	78.13	12.01
Medium Anger Scene	(N=15)	78.27	8.21



TABLE 7

## TESTS OF SIGNIFICANCE FOR AFFILIATION GROUPS ON THE FOUR SCENES.

<u>High Affiliation Group</u>	Means and S.D.'s		T-Value	P-Value
High vs. Medium Love Scenes	42.1 11.4	vs. 42.6 13.6	.156	NS
High vs. Medium Anger Scenes	76.3 10.6	vs. 74.3 13.9	.645	NS P= .30
<u>Medium Affiliation Group</u>				
High vs. Medium Love Scenes	43.2 10.4	vs. 49.8 16.6	1.86	P= .05
High vs. Medium Anger Scenes	78.2 11.4	vs. 71.2 12.2	2.28	P= .025
<u>Low Affiliation Group</u>				
High vs. Medium Love Scenes	39.4 12.1	vs. 53.6 18.1	3.55	P= .005
High vs. Medium Anger Scenes	74.1 12.7	vs. 73.7 11.2	.016	NS

### Discussion

As indicated in Table 7, the first hypothesis was substantially supported. High affiliation groups were found to be unable to significantly distinguish between high and medium love scenes. In terms of the operational definition given to affiliation in this study, the finding would indicate that both males and females who express positive reactions to inter-personal relationships in an extreme manner (i.e. high affiliative) will find it hard to distinguish between gradations in love cues.

The second hypothesis was not supported at a significant level; high affiliation groups did not distinguish between high and medium anger scenes. However, the results were in the predicted direction and approached the .30 level of significance. The findings indicate, therefore, that while high affiliation groups cannot significantly distinguish between high and medium anger scenes, they show a trend in this direction.

Both the third and the fourth hypotheses were supported to a highly significant degree. The medium affiliative groups were able to accurately distinguish between the anger films and the love films. Since the medium affiliative person does not place an extreme value on affiliation, either pro or con, he is able to discriminate between both love and anger cues. Having been exposed to the social milieu which permits of the

learning of social cues, he is able to categorize more precisely than would members of the extreme affiliation groups.

In terms of the low affiliation groups, they were not able to significantly distinguish between the two scenes of anger, as predicted. They also significantly distinguished between the two scenes of love, in accordance with expectations. Thus, the over-valuing of low affiliative tendencies mitigated against a clear-cut distinction between anger scenes, but did not influence the ability to distinguish between scenes of love.

Accordingly, a basic principle to be understood is that if the level of motivation, arousal or value is very high, it may lead to inefficient behavior in that particular area of behavior. As Hebb (1955, pp. 250-251) points out, there are optimal levels of arousal. He notes that "the same stimulation in a mild degree may attract (by prolonging the pattern of response that leads to this particular stimulation) and in a strong degree repel (by disrupting the pattern and facilitating conflicting or alternative responses)." In this manner, he concludes, "there will be an optimal level of arousal for effective behavior."

Consequently, where there is a high level of valuation or motivation, the categorization criteria may be so wide that any stimulus input might be accepted as appropriate and fitting, if it appears relevant. An example of this can be found in the Shipley and Veroff study (1952) in which the



rejected group had a significantly higher mean affiliation score than did the accepted group. Hence, the higher valuation of affiliation activities may simply mean that these activities are lacking in reality. The higher valuation of affiliative activities in the rejected group is also suggestive of the extent to which perception of social interactions might be affected.

Accordingly, there was greater accessibility of love categorizations on the part of the high affiliative subjects. Any stimulus material which appeared to have some relationship to love evoked this categorization without too much discrimination between stimulus inputs. Consequently, the high affiliation group could not significantly distinguish between high and medium love. While not significantly distinguishing between high and medium anger, the results for the high affiliation group are in the predicted direction. The implication would be, therefore, that there is no excessive sensitivity to anger cues in the high affiliative subject, enabling him to differentiate between high and medium anger cues.

In terms of the low affiliation group, the same line of reasoning applies. Any stimulus material that appears to have some relationship to anger will evoke this category without too much discrimination between stimulus inputs. This accounts for the low affiliative subject's inability to significantly distinguish between high and medium anger cues, based on the



excessive valuation of low affiliative activities. However, this fact does not mitigate against categorization of love cues, which is borne out by the results.

The medium affiliative group is neither excessively aroused by love nor anger cues. Since effectiveness is maintained in both spheres, they can significantly distinguish high from medium love as well as high from medium anger. This latter group has obviously not gone beyond the optimal level of arousal necessary for efficient categorization.

Thus, the results indicate in part that the ability to distinguish between simulated cues of high and medium love as well as high and medium anger is a function of the affiliative need. Apparently, excessive valuation of either extreme (i.e. high or low affiliation) results in an inability to differentiate between gradations of love or anger respectively. An expressed affiliation need which falls within the moderate range, however, does not mitigate against the accurate perception of either love or anger cues. According to Berlew and Williams (1964, p. 151), "As motive intensity increases and the ordering of categories becomes more and more influenced by the needs of the individual, attention to need related cues becomes more pronounced and autistic percepts more frequent." Accordingly, they state that as motivation increases there is an increase in the autistic component when viewing need-related cues, resulting in inaccurate perceptions and judgments. With low motivation, there is less of an autistic component, and more

accurate perception of need-related cues. However, with extremely low motivation the attention given to cues will be minimal, and inaccurate judgments will continue to be made. Consequently, they stress the necessary balancing of attentive and autistic factors for accurate perceptions. "We would expect the moderately motivated person to perform best on the complex cognitive task of judging other persons because he should be both attentive to need-related cues in his environment and relatively unautistic in perceiving such cues." (p. 151). Therefore, as a result of the present study, further investigation may examine the relationship between attention and autism with regard to the perception of love and anger cues in groups aroused to different levels of need affiliation.

### Summary

A study of perceptual categorizations of love and anger cues in high, medium, and low affiliation groups was conducted, employing 360 college students consisting of 180 males and 180 females. The measure of love or anger was obtained by having each subject rate one of four films designated as high love, medium love, medium anger and high anger. Each subject was also given a sixty (60) item affiliation schedule derived from the Edwards Personal Preference Schedule. Thus ninety (90) subjects saw each film (45 males and 45 females). Each one of these four groups was subdivided into high, medium, and low affiliation groups containing fifteen (15) males and fifteen females in each cell. Thus, twenty-four (24) groups were used in all.

It was hypothesized that high affiliation subjects would be unable to effectively distinguish between high and medium love scenes, but would be able to significantly differentiate the anger scenes. It was further hypothesized that the medium affiliation groups would be able to significantly differentiate the love and the anger scenes. Additionally, it was hypothesized that the low affiliation groups would not significantly differentiate the anger scenes but would be capable of evaluating the love scenes differently.

Five of the six hypotheses were confirmed, with the sixth falling in the predicted direction. High affiliation



groups did not differentiate, significantly, the love or anger scenes. Medium affiliation groups differentiated, significantly, the love and anger scenes. Low affiliation groups differentiated the love scenes, but not the anger scenes. The results were explained in terms of excessive valuation of particular categories. The high affiliative person excessively values love cues, and is consequently unable to distinguish between high and medium love. The low affiliative person excessively values or is excessively aroused by anger cues and is consequently unable to distinguish between high and medium anger. The medium affiliation group does not excessively value any category and is thus capable of accurate distinctions between high and medium love as well as high and medium anger.



## References

- Allport, F. Theories of perception and the concept of structure. New York: John Wiley and Sons, Inc., 1955.
- Atkinson, J. Motives in fantasy, action and society. New York: D. Van Nostrand Co., Inc., 1958.
- Berlew, D. & Williams, A. Interpersonal sensitivity under motive arousing conditions. J. Abnorm. Soc. Psychol., 1964, 68, 150-159.
- Bruner, J. S. & Klein, G. The functions of perceiving: new look retrospect. In B. Kaplan & S. Wapner (Eds.) Perspectives in psychological theory. New York: International Universities Press, Inc., 1960.
- Bruner, J. S. On perceptual readiness. Psychol. Rev., 1957, 64, 123-152.
- Buck, L. A. A comparison of the impressions of schizophrenic and normal subjects on two simulated scenes of social interaction. Unpublished Masters Thesis. University of Mass., 1960.
- Buck, L. A. & Kates, S. Perceptual categorizations of love and anger cues in schizophrenics. J. Abnorm. Soc. Psychol., 1963, 67, 480-490.
- Edwards, A. The relationship between the judged desirability of a trait and the probability that the trait will be endorsed. J. Appl. Psychol., 37, 90-93.
- Edwards, A. The social desirability variable in personality assessment and research. New York: The Dryden Press, 1957.
- Edwards, A. Edwards personality preference schedule. New York: The Psychological Corporation, 1959.
- Hebb, D. O. Drives and the C. N. S. (conceptual nervous system). Psychol. Rev., 1955, 62, 243-254.
- Heider, F. & Simmel, M. An experimental study of apparent behavior. Am. J. Psychol., 1944, 57, 243-259.
- Kates, S. & Buck, L. A. An experimental study of apparent social behavior. Paper presented at EPA, 1958.
- Kates, S. & Buck, L. A. An experimental study of apparent social behavior. Paper presented at EPA, 1959.

- Klein, G. Perception, motives and personality. In J. L. McCary (Ed.) Psychology of personality. New York: Logos, 1956.
- Klein, G. Need and regulation. In M. R. Jones (Ed.) Nebraska Symposium on Motivation. Lincoln: University of Nebraska Press, 1957.
- McClelland, D., Atkinson, J., Clark, R., & Lowell, E. The achievement motive. New York: Appleton-Century-Crofts, 1953.
- Michotte, A. E. The emotions regarded as functional connections. In M. L. Reymert (Ed.) Feelings and emotions. New York: McGraw-Hill, 1950.
- Miller, G. A. Psychology: the science of mental life. New York: Harper and Row, 1962.
- Murray, H. A. Explorations in personality. New York: Science Editions, Inc., 1962.
- Schachter, S. The psychology of affiliation. Stanford: Stanford University Press, 1959.
- Taylor, D. W. Toward an information processing theory of motivation. In M. R. Jones (Ed.) Nebraska Symposium on Motivation. Lincoln: University of Nebraska Press, 1960.

## APPENDIX I

SEX: MALE

FEMALE

BIRTHDATE: \_\_\_\_\_

FATHER'S OCCUPATION \_\_\_\_\_

## DIRECTIONS

This schedule consists of a number of pairs of statements about things that you may or may not like; about ways in which you may or may not feel. Look at the example below.

A I like to talk about myself to others.

B I like to work toward some goal that I have set for myself.

Which of these two statements is more characteristic of what you like? If you like A more than B, you should choose A; if you like B more than A, you should choose B. You may like both A and B. In this case, you would have to choose between the two and you should choose the one that you like better. If you dislike both A and B, then you should choose the one that you dislike less.

Some of the pairs of statements in the schedule have to do with your likes, such as A and B above. Other pairs of statements have to do with how you feel. Look at the example below.

A I feel depressed when I fail at something.

B I feel nervous when giving a talk before a group.

Which of these two statements is more characteristic of how you feel? If A is more characteristic of you, then you



should choose A over B; if B is more characteristic of you, then you should choose B over A. If both statements describe how you feel, then you should choose the one which you consider to be less inaccurate.

Your choice, in each instance, should be in terms of what you like and how you feel at the present time, and not in terms of what you think you should like or how you think you should feel. This is not a test. There are no right or wrong answers. Your choices should be a description of your own personal likes and feelings. Make a choice for every pair of statements; do not skip any.

The pairs of statements on the following pages are similar to the examples given above. Read each pair of statements and pick out the one statement that better describes what you like or how you feel. Indicate your choice by circling the letter A or B next to each pair of questions.



1. A I like to help my friends when they are in trouble.  
B I like to do my very best in whatever I undertake.
2. A I get so angry that I feel like throwing and breaking things.  
B I like to avoid responsibilities and obligations.
3. A I like to be successful in things undertaken.  
B I like to form new friendships.
4. A I like to follow instructions and to do what is expected of me.  
B I like to have strong attachments with my friends.
5. A Any written work that I do I like to have precise, neat and well organized.  
B I like to make as many friends as I can.
6. A I like to tell amusing jokes and stories at parties.  
B I like to write letters to my friends.
7. A I like to be able to come and go as I want to.  
B I like to share things with my friends.
8. A I like to solve puzzles and problems that other people have difficulty with.  
B I like to judge people by why they do something--not by what they actually do.
9. A I like to avoid responsibilities and obligations.  
B I feel like making fun of people who do things that I regard as stupid.
10. A I like to be loyal to my friends.  
B I like to do my very best in whatever I undertake.
11. A I like to observe how another individual feels in a given situation.  
B I like to be able to say that I have done a difficult job well.
12. A When things go wrong for me I feel that I am more to blame than anyone else.  
B I like to solve puzzles and problems that other people have difficulty with.
13. A I like to do things for my friends.  
B When planning something, I like to get suggestions from other people whose opinions I respect.

14. A I like to put myself in someone else's place and to imagine how I would feel in the same situation.  
B I like to tell my superiors that they have done a good job on something when I think they have.
15. A If I do something that is wrong, I feel that I should be punished for it.  
B I like to conform to custom and to avoid doing things that people I respect might consider unconventional.
16. A I like to share things with my friends.  
B I like to make a plan before starting in to do something difficult.
17. A I like to understand how my friends feel about various problems they have to face.  
B If I have to take a trip I like to have things planned in advance.
18. A I feel that the pain and misery that I have suffered has done me more good than harm.  
B I like to have my life so arranged that it runs smoothly and without much change in my plans.
19. A I like to have strong attachments with my friends.  
B I like to say things that are regarded as witty and clever by other people.
20. A I like to think about the personalities of my friends and to try to figure out what makes them as they are.  
B I sometimes like to do things just to see what effect it will have on others.
21. A I feel timid in the presence of other people I regard as my superiors.  
B I like to use words which other people often do not know the meaning of.
22. A I like to do things with my friends rather than by myself.  
B I like to say what I think about things.
23. A I like to analyze the behavior of others.  
B I like to do things that others think are unconventional.
24. A I feel that I am inferior to others in most respects.  
B I like to avoid responsibilities and obligations.



25. A I like to be successful in things undertaken.  
B I like to form new friendships.
26. A I like to analyze my own motives and feelings.  
B I like to make as many friends as I can.
27. A I like my friends to help me when I am in trouble.  
B I like to do things for my friends.
28. A I like to argue for my point of view when it is  
attacked by others.  
B I like to write letters to my friends.
29. A I feel guilty whenever I have done something I know  
is wrong.  
B I like to have strong attachments with my friends.
30. A I like to share things with my friends.  
B I like to analyze my own motives and feelings.
31. A I like to accept the leadership of people I admire.  
B I like to understand how my friends feel about various  
problems they have to face.
32. A I like to form new friendships.  
B I like my friends to help me when I am in trouble.
33. A I like to judge others by why they do something--  
not by what they actually do.  
B I like my friends to show a great deal of affection  
toward me.
34. A I feel that I should confess the things that I have  
done that I regard as wrong.  
B I like my friends to cheer me up when I am depressed.
35. A I like to do things with my friends rather than by  
myself.  
B I like to argue for my point of view when it is  
attacked by others.
36. A I like to think about my friend's personalities and  
try to figure out what makes them as they are.  
B I like to be able to persuade others to do what I  
want to do.
37. A I feel timid in the presence of the people who are  
my superiors.  
B I like to supervise and direct actions of others  
whenever I can.

38. A I like to participate in groups in which the members have warm and friendly feelings toward one another.  
B I feel guilty whenever I have done something I know is wrong.
39. A I like to analyze the feelings and motives of others.  
B I feel depressed by my inability to handle situations.
40. A I like to criticize people in a position of authority.  
B I feel timid in the presence of people who are my superiors.
41. A I like my friends to help me when I am in trouble.  
B I like to treat other people with kindness and sympathy.
42. A I like to meet new people.  
B I like to praise someone I admire.
43. A I like to help my friends when they are in trouble.  
B I like to be loyal to my friends.
44. A I like to do new and different things.  
B I like to form new friendships.
45. A When I have some assignment to do, I like to start in and keep working on it until it is completed.  
B I like to participate in groups in which the members have warm and friendly feelings toward one another.
46. A I like to go out with attractive persons of the opposite sex.  
B I like to make as many friends as I can.
47. A I like to attack points of view that are contrary to mine.  
B I like to write letters to my friends.
48. A I like to be generous with my friends.  
B I like to observe another person's feelings in a given situation.
49. A I feel that the pain I have suffered has done me more good than harm.  
B I like to show much affection toward my friends.
50. A I like to do things with my friends rather than by myself.  
B I like to experiment and try new things.



51. A I like to tell other people how to do their jobs.  
B I feel like getting revenge when someone has insulted me.
52. A I like to be generous with my friends.  
B I like to make a plan before starting something difficult.
53. A I like to do things for my friends.  
B When I have some assignment to do, I like to start in on it and keep working until it is completed.
54. A I like to travel and see the country.  
B I like to accomplish tasks requiring skill.
55. A I like to listen to or tell jokes in which sex plays a major part.  
B I feel like getting revenge when someone has insulted me.
56. A I like to be loyal to my friends.  
I like to go out with attractive persons of the opposite sex.
57. A I like my friends to show affection toward me.  
B I like to become sexually excited.
58. A I like to participate in fads and fashions.  
B I feel like criticizing so one publicly if he deserves it.
59. A I like to write letters to my friends.  
B I like to read newspaper accounts of murders and other forms of violence.
60. A I like to help my friends when they are in trouble.  
B I like to do my very best in whatever I undertake.

## SECTION II

You have just been shown a film in which you viewed the objects as if they were people. On the page below you will see a number of words that can be used to describe the film you have just seen. These are set up so that you can check how well they describe the movie. How would you rate the movie with regard to these words? Place a check mark at the point that best describes what happened in the movie. Make sure that you check one place on each and every trait listed below.

An example of how one might rate the length of the movie is as follows:

- 7. \_\_\_\_\_ most long
- 6. \_\_\_\_\_ very long
- 5. \_\_\_\_\_ long
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ short
- 2.   X   very short
- 1. \_\_\_\_\_ most short

The person who rated this situation feels that the movie is well below average in length, but is not the most short.

Now go ahead and rate the movie on each of the traits listed.

1. Trustful (Would they have faith in one another, or would they be suspicious and doubt each other?)

- 7. \_\_\_\_\_ most trustful
- 6. \_\_\_\_\_ very trustful
- 5. \_\_\_\_\_ trustful
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ suspicious
- 2. \_\_\_\_\_ very suspicious
- 1. \_\_\_\_\_ most suspicious

2. Cheerful (Do they seem to be laughing and happy together, or are they sad and unhappy with each other?)

7. \_\_\_\_\_ most cheerful  
 6. \_\_\_\_\_ very cheerful  
 5. \_\_\_\_\_ cheerful  
 4. \_\_\_\_\_ average  
 3. \_\_\_\_\_ sad  
 2. \_\_\_\_\_ very sad  
 1. \_\_\_\_\_ most sad

3. Disagreement (Do they have different ideas which are in disagreement, or do they seem to agree with each other?)

7. \_\_\_\_\_ most disagreement  
 6. \_\_\_\_\_ very much disagreement  
 5. \_\_\_\_\_ disagreement  
 4. \_\_\_\_\_ average  
 3. \_\_\_\_\_ agreement  
 2. \_\_\_\_\_ very much agreement  
 1. \_\_\_\_\_ most agreement

4. Self Interest (Does either of them seem to be interested only in getting something for himself, or do they act as though the other person's feelings are as important as their own?)

7. \_\_\_\_\_ most self interest  
 6. \_\_\_\_\_ very much self interest  
 5. \_\_\_\_\_ self interest  
 4. \_\_\_\_\_ average  
 3. \_\_\_\_\_ cooperation  
 2. \_\_\_\_\_ very much cooperation  
 1. \_\_\_\_\_ most cooperation

5. Relaxation (Are they relaxed and carefree when they are together, or is there tension and uneasiness?)

7. \_\_\_\_\_ most relaxation  
 6. \_\_\_\_\_ very much relaxation  
 5. \_\_\_\_\_ relaxation  
 4. \_\_\_\_\_ average  
 3. \_\_\_\_\_ tension  
 2. \_\_\_\_\_ very much tension  
 1. \_\_\_\_\_ most tension

6. Leadership of one by the other (Does one of them try to get his own way almost all of the time, or do they seem to be fairly equal in terms of which one is the leader?)

- 7. \_\_\_\_\_ most leadership by one
- 6. \_\_\_\_\_ very much leadership by one
- 5. \_\_\_\_\_ leadership by one
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ equality
- 2. \_\_\_\_\_ very much equality
- 1. \_\_\_\_\_ most equality

7. Not satisfying (Do they satisfy each other, or don't they like each other?)

- 7. \_\_\_\_\_ most unsatisfactory
- 6. \_\_\_\_\_ very unsatisfactory
- 5. \_\_\_\_\_ unsatisfactory
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ satisfactory
- 2. \_\_\_\_\_ very satisfactory
- 1. \_\_\_\_\_ most satisfactory

8. Long Lasting (Will they remain together for a long time, or will they soon leave each other?)

- 7. \_\_\_\_\_ most lasting
- 6. \_\_\_\_\_ very lasting
- 5. \_\_\_\_\_ lasting
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ short
- 2. \_\_\_\_\_ very short
- 1. \_\_\_\_\_ most short

9. Enjoyment (Do they enjoy being together, or do they find being with each other unenjoyable?)

- 7. \_\_\_\_\_ most enjoyable
- 6. \_\_\_\_\_ very enjoyable
- 5. \_\_\_\_\_ enjoyable
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ unenjoyable
- 2. \_\_\_\_\_ very unenjoyable
- 1. \_\_\_\_\_ most unenjoyable



10. Friendly (Do they tend to get along together in a friendly way, or are they unfriendly?)

- 7. \_\_\_\_\_ most friendly
- 6. \_\_\_\_\_ very friendly
- 5. \_\_\_\_\_ friendly
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ unfriendly
- 2. \_\_\_\_\_ very unfriendly
- 1. \_\_\_\_\_ most unfriendly

11. Toughness (Do they act very tough and rough with each other or do they accept each other in an easy, gentle and kind way?)

- 7. \_\_\_\_\_ most tough
- 6. \_\_\_\_\_ very tough
- 5. \_\_\_\_\_ tough
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ gentle
- 2. \_\_\_\_\_ very gentle
- 1. \_\_\_\_\_ most gentle

12. Loving (Do they show a great deal of affection for each other, or are they angry at each other?)

- 7. \_\_\_\_\_ most loving
- 6. \_\_\_\_\_ very loving
- 5. \_\_\_\_\_ loving
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ angry
- 2. \_\_\_\_\_ very angry
- 1. \_\_\_\_\_ most angry

13. Warm Sociable (Do they get together and talk easily with each other, or do they hold themselves back and restrain themselves?)

- 7. \_\_\_\_\_ most sociable
- 6. \_\_\_\_\_ very sociable
- 5. ) \_\_\_\_\_ sociable
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ restrained
- 2. \_\_\_\_\_ very restrained
- 1. \_\_\_\_\_ most restrained

14. Working together (Are they able to get things done together, or wouldn't they be able to work with each other?)

- 7. \_\_\_\_\_ most working together well
- 6. \_\_\_\_\_ very much working together well
- 5. \_\_\_\_\_ working together well
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ working together poorly
- 2. \_\_\_\_\_ working together very poorly
- 1. \_\_\_\_\_ working together most poorly

15. Aggressive (Do they fight a lot, or do they get along with each other without fighting?)

- 7. \_\_\_\_\_ most aggressive
- 6. \_\_\_\_\_ very aggressive
- 5. \_\_\_\_\_ aggressive
- 4. \_\_\_\_\_ average
- 3. \_\_\_\_\_ unaggressive
- 2. \_\_\_\_\_ very unaggressive
- 1. \_\_\_\_\_ most unaggressive

## APPENDIX II

ANALYSIS OF VARIANCE FOR HIGH, MEDIUM AND LOW  
AFFILIATION MALE AND FEMALE GROUPS ON THE  
FOUR SCENES OF SIMULATED SOCIAL INTER-  
ACTION FOR THE RATING SCALE DATA.

Source	df	SS	MS	F-Ratio	P-Value
Films (A)	3	80568.600	26856.200	157.739	.001
Affilia- tion (B)	2	904.400	453.700	2.664	.08
Sex (C)	1	193.600	193.600	1.137	----
A X B	6	1582.000	263.666	1.548	----
A X C	3	2382.200	794.066	4.663	.005
B X C	2	392.200	196.100	1.151	----
A X B X C	6	1372.000	228.666	1.343	----
Error	336	57206.200	170.256		
Total	359	144604.200			

## APPENDIX III

ANALYSIS OF VARIANCE FOR HIGH, MEDIUM AND LOW AFFILIATION  
GROUPS OF MALES AND FEMALES ON THE HIGH LOVE  
SCENE FOR THE RATING SCALE DATA.

Source	df	SS	MS	F	P-Value
Affilia- tion (B)	2	232.090	116.045	.873	----
Sex (C)	1	184.900	184.900	1.391	----
B X C	2	257.860	128.930	.970	----
Error	84	11164.940	132.915		
Total	89	11839.790			



## APPENDIX IV

ANALYSIS OF VARIANCE FOR HIGH, MEDIUM AND LOW AFFILIATION  
GROUPS OF MALES AND FEMALES ON THE MEDIUM LOVE  
SCENE FOR THE RATING SCALE DATA.

Source	df	SS	MS	F	P-Value
Affilia- tion (B)	2	945.690	472.845	1.772	----
Sex (C)	1	2180.540	2180.540	8.172	----
B X C	2	85.690	42.845	.160	----
Error	84	22413.740	266.830		
Total	89	25625.660			

## APPENDIX V

ANALYSIS OF VARIANCE FOR HIGH, MEDIUM AND LOW AFFILIATION  
GROUPS OF MALES AND FEMALES ON THE MEDIUM  
ANGER SCENE FOR THE RATING SCALE DATA

Source	df	SS	MS	F	P-Value
Affilia- tion (B)	2	527.090	263.545	1.946	-----
Sex (C)	1	157.350	157.350	1.162	-----
B X C	2	1014.290	507.145	3.745	.05
Error	84	11372.400	135.385		
Total	89	13071.130			

## APPENDIX VI

ANALYSIS OF VARIANCE FOR HIGH, MEDIUM AND LOW AFFILIATION  
GROUPS OF MALES AND FEMALES ON THE HIGH ANGER  
SCENE FOR THE RATING SCALE DATA

Source	df	SS	MS	F	P-Value
Affilia- tion (B)	2	784.460	392.230	2.688	.08
Sex (C)	1	52.900	52.900	.362	----
B X C	2	406.470	203.235	1.393	----
Error	84	12255.070	145.893		
Total	89	13498.900			

## APPENDIX VII

TESTS OF SIGNIFICANCE BETWEEN MEANS OBTAINED ON RATING SCALE DATA, FOR MALES AND FEMALES SEPARATELY.

High Affiliation Groups	T-Value	P-Value
High vs. Medium Love (Males)	.097	NS
High vs. Medium Love (Females)	.355	NS
High vs. Medium Anger (Males)	.909	NS
High vs. Medium Anger (Females)	1.35	NS
<u>Medium Affiliation Groups</u>		
High vs. Medium Love (Males)	.258	NS
High vs. Medium Love (Females)	2.28	P= .025
High vs. Medium Anger (Males)	.63	NS
High vs. Medium Anger (Females)	2.45	P= .025
<u>Low Affiliation Groups</u>		
High vs. Medium Love (Males)	1.62	NS, P .10
High vs. Medium Love (Females)	3.453	P= .005
High vs. Medium Anger (Males)	.261	NS
High vs. Medium Anger (Females)	.037	NS



## APPENDIX VIII

## RAW DATA FOR RATINGS GIVEN SCENE OF MEDIUM LOVE

$S_s$	High Male $B_1C_1$	High Female $B_1C_2$	Medium Male $B_2C_1$	Medium Female $B_2C_2$	Low Male $B_3C_1$	Low Female $B_3C_2$
$S_1$	56	39	72	32	46	45
$S_2$	32	15	42	41	58	61
$S_3$	54	49	51	43	42	48
$S_4$	24	41	60	51	49	38
$S_5$	54	43	35	89	46	33
$S_6$	41	43	38	52	84	50
$S_7$	68	23	73	76	51	86
$S_8$	40	34	57	42	46	45
$S_9$	36	64	47	81	68	84
$S_{10}$	38	41	32	74	20	64
$S_{11}$	58	33	43	39	32	36
$S_{12}$	34	45	15	48	42	65
$S_{13}$	70	63	35	42	67	97
$S_{14}$	47	26	44	34	44	79
$S_{15}$	23	45	46	60	34	48
Total	675	604	690	804	729	879

## APPENDIX IX

## RAW DATA FOR RATINGS GIVEN SCENE OF HIGH LOVE

$S_s$	High Male $B_1C_1$	High Female $B_1C_2$	Medium Male $B_2C_1$	Medium Female $B_2C_2$	Low Male $B_3C_1$	Low Female $B_3C_2$
$S_1$	67	15	51	52	41	66
$S_2$	47	33	44	39	35	38
$S_3$	34	44	36	33	53	27
$S_4$	62	36	65	46	51	42
$S_5$	31	48	56	46	53	36
$S_6$	46	32	44	41	38	43
$S_7$	45	39	42	52	15	24
$S_8$	50	41	40	27	54	55
$S_9$	34	47	57	22	50	44
$S_{10}$	42	21	42	32	48	39
$S_{11}$	48	46	33	38	46	44
$S_{12}$	68	44	25	46	15	23
$S_{13}$	38	44	36	44	30	33
$S_{14}$	43	50	58	64	39	18
$S_{15}$	27	42	43	43	39	43
Total	682	582	672	625	607	575

## APPENDIX X

## RAW DATA FOR RATINGS GIVEN SCENE OF HIGH ANGER

$S_s$	High Male $B_1C_1$	High Female $B_1C_2$	Medium Male $B_2C_1$	Medium Female $B_2C_2$	Low Male $B_3C_1$	Low Female $B_3C_2$
$S_1$	72	74	60	70	88	86
$S_2$	62	83	77	95	73	50
$S_3$	75	86	67	57	79	81
$S_4$	79	83	90	92	76	91
$S_5$	54	88	62	70	62	86
$S_6$	86	95	78	78	75	78
$S_7$	85	85	81	71	84	80
$S_8$	65	83	80	80	63	78
$S_9$	73	72	55	84	54	82
$S_{10}$	60	85	74	89	78	93
$S_{11}$	71	64	79	83	42	77
$S_{12}$	82	84	92	79	55	79
$S_{13}$	72	71	90	101	76	79
$S_{14}$	84	90	79	93	81	80
$S_{15}$	51	75	64	75	64	52
Total	1071	1218	1128	1217	1050	1172

## APPENDIX XI

## RAW DATA FOR RATINGS GIVEN SCENE OF MEDIUM ANGER

$S_i$	High Male $B_1C_1$	High Female $B_1C_2$	Medium Male $B_2C_1$	Medium Female $B_2C_2$	Low Male $B_3C_1$	Low Female $B_3C_2$
$S_1$	54	69	87	81	71	83
$S_2$	85	77	65	55	75	78
$S_3$	81	86	82	70	76	59
$S_4$	88	77	79	87	73	83
$S_5$	56	69	79	74	73	81
$S_6$	76	79	70	44	79	92
$S_7$	75	43	52	75	50	72
$S_8$	86	99	75	36	83	81
$S_9$	58	84	64	67	43	70
$S_{10}$	86	64	73	72	81	75
$S_{11}$	78	80	81	84	70	75
$S_{12}$	69	71	75	75	79	71
$S_{13}$	89	77	64	90	58	84
$S_{14}$	86	85	79	71	51	82
$S_{15}$	61	41	69	61	75	88
Total	1128	1101	1094	1042	1037	1174



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Approved by:

John L. Kates

Louis E. Price

Myron B. Maxley

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