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## An Investigation of Perceived and Actual Attitude Agreement, Stimulation Value and Total Friendship

Robert J. Bateen

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AN INVESTIGATION OF PERCEIVED AND ACTUAL  
ATTITUDE AGREEMENT, STIMULATION VALUE  
AND TOTAL FRIENDSHIP

by  
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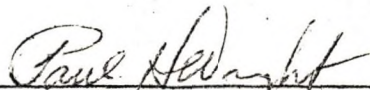
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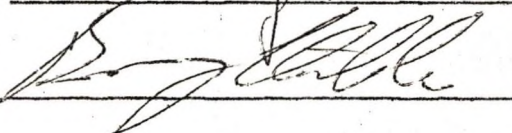
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This thesis submitted by Robert J. Bateen in partial fulfillment of the requirements for the Degree of Master of Arts from the University of North Dakota is hereby approved by the Faculty Advisory Committee under whom the work has been done.

  
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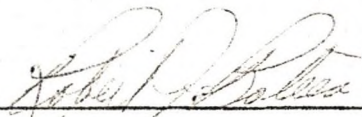
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Title AN INVESTIGATION OF PERCEIVED AND ACTUAL ATTITUDE  
AGREEMENT, STIMULATION VALUE AND TOTAL FRIENDSHIP

Department Psychology

Degree Master of Arts

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## ABSTRACT

The investigation was designed to explore the relationship between attitude dissimilarity and strength of friendship. It was hypothesized that those who perceived their acquaintance as being high in Stimulation Value (SV) would perceive their acquaintance as more dissimilar from themselves than those perceiving their acquaintance as low in Stimulation Value. Since it was felt that SV is part of Total Friendship, it was predicted that those who had estimated that a strong friendship existed between themselves and their acquaintance would perceive their acquaintance as being less attitudinally similar to themselves than the pairs who scored low on Total Friendship.

Eighteen pairs of students who had known each other for at least six months were administered an Attitude Questionnaire and then readministered the same questionnaire and asked to complete it as they felt their acquaintance had. Finally, they were administered Wright's Acquaintance Description Form (ADF). Scores on the ADF were then computed for Total Friendship (TF) and Stimulation Value (SV). An analysis of the Attitude Questionnaire yielded scores for each individual on how accurately he perceived his acquaintance's attitudes (accuracy of perception), on perceived dissimilarity and the degree of actual attitude dissimilarity.



The data were analyzed in two ways. First, attitude dissimilarity was viewed as a function of TF or SV and strength of attitude. Secondly, TF was viewed as the dependent variable with attitude dissimilarity and attitude strength as the independent variables.

The results suggest that people seek consensual validation for their strongly held attitudes but, at the same time, are attracted to those who are stimulating, as reflected by dissimilarity on weakly held attitudes. It was also concluded that those who see their friendship as strong need less consensual validation from their acquaintance and seek out more stimulation than those who perceive the relationship as weak.

## CHAPTER I

### PROBLEM AND ORIENTATION

#### Attitude Agreement and Interpersonal Attraction

A number of theorists have attempted to delineate the important variables which lead to interpersonal attraction. Among the variables which have been suggested is propinquity (Newcomb, 1967). Studies by Festinger (in Lott and Lott, 1965) and Newcomb (1967) suggest that, while propinquity provides the first basis for attraction, other variables are important in strengthening and maintaining the friendship. Winch (1954, 1955) has hypothesized that need complementarity may be an important influence in determining which people will become friends. Briefly, Winch hypothesized that mate selection is based upon reciprocal need satisfaction where one mate is high in a need and the other is low in the same need or where one member is high in a need considered the complement of another need of the mate. Izard (1960, 1963) utilized the Edward's Personal Preference Scale (EPPS) and found that the profile for friends correlated significantly higher than the profiles for randomly selected pairs. He concluded that need similarity might influence interpersonal attraction. Unfortunately, propinquity, need similarity and need complementarity appear to have limitations in their ability to explain why people are



attracted to each other. Wright (1968) discusses these limitations in greater depth.

An area that has generated a great deal of theory and concomitant research has been the relationship between attitude similarity and friendship. The crux of these theories seems to be that man strives to create a tension free situation. Since attitude dissimilarity is seen as creating a state of tension, these theories predict that the subject will tend to perceive a stimulus person who holds dissimilar attitudes as less attractive than a stimulus person whose attitudes are more similar.

Heider (1958) suggested that people tend to try to establish a state of cognitive balance. People, according to the Balance Theory, are action centers which may be viewed as helpful or harmful to the observer. It is necessary then for the observer to be able to predict the behavior of others. In person perception, the behavior of the stimulus person is interpreted in terms of the stimulus person's motives, sentiments or beliefs. In order to predict, the observer must view the stimulus person as being consistent with related objects. A stable perception which allows for prediction and hence a state of cognitive balance requires that an object be viewed with a similar valance as other related objects. Heider's Balance Theory is set up as follows: If person p likes object x and knows that person o likes x, he will view o positively. Symbolically, any two elements of p-x-o must have the same valance in order to



maintain balance. Should p and o differ in their attitudes toward x, then a state of tension would exist. Balance can be established should either p or o change his attitude toward object x or toward the other person.

Newcomb (1961) has attempted to expand Heider's theory by taking into consideration not only person A's attraction to person B and their attitudes toward X but also the true nature of the situation. Should A discover that what he has perceived as a balanced state does not in reality exist, there will be a "strain toward symmetry." If, for example, A discovers that he and B do not share the same attitude toward X, then he can restore balance by changing his attitude toward X or his attitude toward person B.

Newcomb performed two field studies (1961) which were designed to test the relationship between similarity and attraction. He found that attitude similarity and attraction between subject dorm members were significantly related. He also found that preacquaintance agreement on a variety of objects was not related to the relatively unstable attraction choices early in the semester. Eventually, however, stabilized attraction choices were related to preacquaintance agreement. He attributed this to an increase in the accuracy of perception as the two people became better acquainted. As the subjects' perceptions of the stimulus person's attitudes became more accurate, they tended to be attracted to those who actually shared the same attitudes.

More recently, Byrne (1961a, 1961b) has postulated the relationship between attitude similarity and



perceived interpersonal attraction in learning theory terms. Byrne feels that when a Target Person shares the same attitudes as the subject, this perceived agreement is consensually validating and therefore positively reinforcing. People tend to be attracted and perceive more positively those who agree with their positions because of the reinforcing properties of attitude agreement. A number of studies have been conducted by Byrne and his co-workers (Byrne, 1961a; Byrne, 1961b; Byrne and Clore, 1966; Byrne and Griffith, 1966; Byrne and Rhamey, 1965; Byrne and Wong, 1962; Jones and Daugherty, 1959) which tend to support the hypothesis that there is a monotonic relationship between perceived attitude similarity and attractiveness of the stimulus person. As a general rule, these studies have utilized the hypothetical stranger situation developed by Smith (1957). Essentially, the method used by Byrne (1969) and by Smith (1957) entails using the hypothetical stranger approach. At the beginning of the semester, the subject was given an attitude questionnaire. The experimenter then filled out an identical attitude scale in a way that agreed with the student's original questionnaire or was dissimilar on a proportional number of items. The subject was then asked to answer an Interpersonal Judgment Scale about the person who had supposedly filled out the questionnaire.

Crawford (1970) cites several cautions which should be taken in interpreting and generalizing from studies using the hypothetical stranger method. First, the level of



agreement is the only information given the subject about the stimulus person. There is no interaction between the subject and the stimulus person hence omitting a number of variables often present in everyday life. A criticism not mentioned by Crawford might be made that the effects of how strongly an attitude is held by the subject and the relationship between this variable and attitude similarity and interpersonal attraction were not taken into consideration.

Despite the rather imposing collection of studies which would seem to support the attitude similarity hypothesis, several studies have failed to demonstrate this finding. Berkowitz and Goranson (1964) found that if a subject perceives himself as liked by the stimulus person, he will tend to minimize the differences between himself and the stimulus person. In a study of engaged, pinned and seriously attached couples, Kerckhoff and Davis (1962) found that value consensus was an important variable in progress toward permanence in pairs for new relationships (under eighteen months) but not for longer-standing relationships. The authors suggest a "filtering process" whereby, if the couple survives their early disagreements, other variables become more important later on in the relationship. Aronson and Worchel (1966, p. 157) feel that "perhaps the relationship between attitude similarity and attraction is due to the implicit assumption that people who hold attitudes similar to our own will like us." From their study the authors concluded that the subject's perception of being liked had a



significant effect on the subject's feelings toward the other person regardless of attitude similarity or dissimilarity. Crawford (1970) has suggested that the results obtained by Kerckhoff and Davis (1962) might be explained in view of the Aronson and Worchel study. The members of the long term relationship group were sure of their mutual liking and had little need to agree. Byrne and Griffith (1966) found both attitude similarity and anticipated liking were in operation. To complicate an already confused picture, Goldstein and Rosenfeld (1969) concluded that insecure subjects were attracted to similar others while secure subjects were as likely to be attracted to dissimilar others.

In brief, no clear cut, generalized relationship between attitude similarity and attraction seems to exist. It would appear that the strength of friendship, feelings of security and of being liked may also be important variables.

Wright (1971, 1972) has developed an approach to the study of friendship which takes into consideration the multidimensionality of this problem and he has developed a method for assessing empirically these different dimensions. The Acquaintance Description Form (ADF) examines the three possible benefits one may derive from the friendship. Stimulation Value (SV) is the extent to which one acquaintance feels the other is interesting and stimulating and capable of introducing new ideas and activities. Utility Value (UV) is the degree to which the subject sees the Target Person as

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one who can help him attain his goals and satisfy his own needs. Ego Support Value (ESV) is the extent to which one acquaintance sees the other as supportive and engendering feelings of self-worth. Wright has established Voluntary Interdependence (VID) as a criterion for friendship. VID refers to the extent to which acquaintances freely participate in joint activities. In other words, VID is determined by how much free time the acquaintances spend together.

Friends react to each other as Persons-qua-Persons (PQP). This entails behaving toward the individual in non-stereotyped ways with "respect to his genuineness, his uniqueness and his irreplaceability in the relationship." Friends then should behave toward each other in role-free, unguarded ways which reflect their true feelings and attitudes and ideas.

Total Friendship (TF) is a function of the Person-qua-Person and voluntary interaction variables.

The ADF also includes a General Favorability (GF) scale which is used to correct for a person's tendency to respond favorably to someone he likes.

#### Statement of the Problem

The bulk of the research then would tend to suggest that there is a significant relationship between perceived similarity and attraction. People tend to perceive those whom they like as being similar and to like those whom they perceive as being similar. On the surface, it would seem that a strong case can be made for the tension reduction or



tension avoidance theories of Heider (1958), Newcomb (1961) and Byrne (1969). According to the Byrne's paradigm, people should be most strongly attracted to those who are perceived as being mirror images of the individual. Such a person immediately evokes the image of the classic "yes man" who never disagrees. Perhaps an insecure individual would need this type of relationship; but for a person who is secure, it would seem logical that such a relationship would quickly die of boredom. Goldstein and Rosenfeld's (1969) work would tend to support this impression. Walster and Walster's (1963) study might also have some implications. They found that if a subject were assured of being liked by all the members of a group, he was more willing to associate with dissimilar than with similar groups. These studies suggest that people may not seek a totally quiescent, nonthreatening, balanced relationship but may also seek some stimulation from the relationship. Wright (1972) has hypothesized that one of several variables which might enter into the formation and maintenance of a friendship is "...the degree to which an individual regards another person as interesting and stimulating, as capable of fostering an expansion and elaboration of the individual's knowledge and perspectives." Such a definition would seem to imply that some attitude dissimilarity is essential for the maintenance of the friendship. The question arises: which attitudes, when perceived as different, take on Stimulation Value and which, when perceived as different, create cognitive imbalance and tension.



While most of the studies on the relationship between attitude similarity and attraction have failed to differentiate between strongly and weakly held attitudes, Byrne, Nelson and Reeves (1966) found that perceived similarity on matters of values and preferences affected liking for a stranger more than perceived similarity on matters of fact, although a prior study by Byrne and Nelson (1964) failed to find this relationship. This study suggests that more dissimilarity is tolerated on weakly held attitudes than on more strongly held attitudes. A second question relates to the stage in the course of the relationship at which dissimilarity becomes acceptable. Kerckhoff and Davis (1962) found that value consensus is important early in the relationship but less important as the relationship was better established.

The present investigation was designed to determine if there is a difference in perceived similarity between strongly held attitudes and weakly held attitudes. Secondly, it was designed to determine if there is a difference in the amount of perceived dissimilarity between high and low friendship groups. Third, an attempt was made to determine the possible role of actual attitude dissimilarity in friendship formation. The measure of attraction was the ADF, especially the Total Friendship scale (TF). Since part of the study was designed to explore the relationship between Stimulation Value and perceived similarity, the Stimulation Value scale (SV) was also used. In order to correct for the "halo effect," scores were adjusted using the General



## Favorability index.

The nature of past research suggests a number of hypotheses which might be advanced. First, it is hypothesized that both the high friendship and low friendship groups will perceive greater attitude dissimilarity on weakly held attitudes than on strongly held attitudes. Secondly, those who perceive the friendship as strong will perceive more dissimilarity between their attitudes and those of their acquaintance irregardless of how strongly the attitude is held. Third, it is predicted that, when the actual attitude dissimilarity between the subject and his acquaintance is small on the strongly held attitudes, this will lead to a stronger friendship. On the other hand, it is felt that a large discrepancy between the subject's attitudes and those of his acquaintance on weakly held attitudes should lead to a stronger friendship than a small amount of dissimilarity. Fourth, since Stimulation Value and attitude dissimilarity would seem to be logically related, it is predicted that those perceiving their acquaintance as being high in Stimulation Value will also perceive greater attitude dissimilarity on the weakly held attitudes. Since it is anticipated that Stimulation Value is a function of weakly held attitudes and consensual validation is a function of strongly held attitudes, no such difference can be predicted for the high and low Stimulation Value groups on strongly held attitudes. Finally, it is hypothesized that a greater actual attitude dissimilarity will exist between

the weakly held attitudes than between the strongly held attitudes for the high friendship group. Because it is questionable if the low friendship group has evolved to the point where attitude dissimilarity can be tolerated, no such hypothesis can be advanced.



## CHAPTER II

### METHOD

#### Overview of Procedure

Eighteen pairs of students from Introduction to Psychology were asked to fill out a forty item questionnaire so that their responses would reflect their own feelings. The students were then asked to fill out the same questionnaire as they felt their acquaintance had completed it. Finally, each student was requested to complete the Acquaintance Description Form (ADF) with the acquaintance as the Target Person.

#### Instruments

##### Attitude Questionnaire

A forty item attitude questionnaire (see Appendix A) was designed to measure attitudes about eight topics of current interest to the average student. Topics were selected and pre-tested in May, 1971 when the attitude questionnaire was administered to a random sample of ten Introductory Psychology students. The topics selected for inclusion were: sports, value of education, abortion, interracial mingling, capital punishment, honesty, drinking and religion. Katz (1967) has suggested that attitudes have three components. The affective component or "feeling core"

refers to the individual's predisposition to evaluate the given object as good or bad, favorable or unfavorable. The behavioral or action component refers to the individual's tendency to avoid or approach the object. The belief or cognitive component refers to the thoughts or ideas about the object or class of objects in question, i.e., the opinions or beliefs held about the object. For each of the eight topics, five items were used. Two of the items were designed to measure the cognitive component, two, the belief component and one was designed to measure the action component. The total score on these five items was used to reflect the strength of the attitude. Each item was accompanied by a seven point, equal appearing interval scale. The subjects were given verbally the following directions upon first administration of the questionnaire:

Please check the response to each of the items so it best reflects your opinion. Please note that under each item is a seven point scale. You will note that above the ends and in the middle are terms such as strongly disagree, neutral or strongly agree. These terms are there only to give you an idea of extremes. For example, if you mildly disagreed with the statement, you would place a check somewhere between the neutral and strongly disagree. Please do not talk to the person who accompanied you here tonight while filling out this questionnaire.

After all of the subjects had completed the first questionnaire, they were given the same questionnaire with the following instructions:

This is the same questionnaire you have just completed. This time, however, I would like you to fill it out as you think your acquaintance filled it out. When you have finished, return it to me and I will give you your final task.



## The Acquaintance Description Form

The Acquaintance Description Form (ADF) (see Appendix B) is a person perception questionnaire developed by Wright (1969) to measure, for a pair of acquaintances, the six components of Wright's (1971) Friendship Model. The ADF is a sixty-eight item questionnaire consisting of seven scales. These scales are as follows:

1. Voluntary Interdependence (VID) - the extent to which members voluntarily participate in joint activities.
2. Difficulty to Maintain (DTM) - the extent to which a member feels he must exert himself to maintain the relationship.
3. Stimulation Value (SV) - a direct reward of the relationship, by which one member is exposed to new ideas and ways of thinking through association with the other member.
4. Utility Value (UV) - a direct benefit whereby one member of the pair finds the other useful in attaining a goal.
5. Ego Support Value (ESV) - a direct benefit on the relationship whereby one member sees the other as supportive and nonthreatening.
6. General Favorability (GF) - measures a tendency for one member to respond favorably to the other member of the pair. This is used as a correction factor for the other scales.
7. Person-qua-Person (PQP) - a measure of the degree to which the member sees his friend as being genuine, unguarded and free to express, without reservation, his feelings, ideas and attitudes.
8. Total Friendship (TF) - a general measure of overall friendship. This score is obtained by summing the values obtained on the VID and PQP scales.

Responses are made to the ADF by circling the correct alternative. The scores on each individual scale are then summed giving seven separate scores. These scores are then corrected for General Favorability (GF) by use of a table.

The directions for the ADF were as follows:

Please record below your response to each of the statements about your Target Person (TP). Decide which of the scale numbers or letters best describes your reaction



and record your choice by circling that number or letter. Please use the following codes: 4 = almost always; 3 = usually; 2 = about half the time; 1 = seldom; 0 = almost never; e = definitely; d = probably; c = perhaps; b = probably not; a = definitely not.

### Procedure

#### Subjects

Subjects for this study consisted of eighteen pairs (n = 36) of male undergraduate students enrolled in Introduction to Psychology. Subjects ranged in age from 18 years to 26 years with a mean age of 19.8 years. Each subject was requested to bring to the test session a same sex acquaintance whom the subject had known for at least six months. Since the study was interested in those scoring both high and low on friendship as measured by the ADF, the term acquaintance was used rather than friend. Subjects were allowed to sign up for one of two different evening testing sessions. Each testing session lasted approximately one hour.

#### Attitude Questionnaire

The attitude questionnaire was administered to each subject twice. Upon the first administration, the subject was requested to fill out the questionnaire so it reflected his own feelings on the eight topics. On the second administration, the subject was asked to fill out the questionnaire as he felt his acquaintance had completed it. While the instructor did not stipulate that all the items must be responded to, in no case did a subject fail to respond to any item.



Each subject was free to respond to each item by checking his preference along a seven point scale. Each item could then be scored from a +3 to a -3 depending on where along the scale the subject checked. A score of +3 was given if the subject strongly agreed; zero was given if the subject indicated no direction; and a -3 was given if the subject strongly disagreed. On items designed to elicit information about the subject's feeling component, the scale ranged from 0 (no feeling) to 6 (strong feeling). The direction for this component was determined by the positive or negative valence given to the belief and action components. The total score representing the subject's attitude toward an object was obtained by summing the scores upon the five items designed to measure the feeling, action and belief components of that attitude.

#### Acquaintance Description Form

After each subject had completed the Attitude Questionnaire both as it represented his own attitudes and as it represented his perceptions of his friend's attitudes, he was requested to complete the ADF. They were informed that upon completion of this task, they were free to leave.

## CHAPTER III

### RESULTS

#### Attitude Questionnaire

On the Attitude Questionnaire each subject filled out the questionnaire first in a manner to reflect the strength and direction of his attitude and then as he felt his acquaintance had completed the same questionnaire. These attitudes were then ranked from highest to lowest with the largest score constituting the most strongly held attitude regardless of direction. The smallest score reflected the most weakly held attitude. In an effort to increase precision, the largest two scores were placed into the strongly held attitude category while the smallest two scores were placed into the weakly held attitude category. The intermediate four attitudes were eliminated from the study. In order to assess the amount of perceived difference, the scores representing the subject's two strongly and two weakly held attitudes were subtracted from those representing the corresponding attitudes on the questionnaire filled out by the subject as he felt his acquaintance would complete it. The actual difference between the subject's attitudes and his acquaintance's attitudes was obtained by subtracting the scores for the subject's two most strongly and weakly held attitudes from the scores for the



corresponding attitude on the questionnaire filled out by the acquaintance. Finally, an estimate of how accurately the subject had perceived his acquaintance's attitudes was obtained by subtracting the scores on the questionnaire filled out by the subject as he felt his acquaintance would complete it from the corresponding scores on the questionnaire completed by the acquaintance reflecting his own attitudes.

#### The Acquaintance Description Form

Each subject filled out the ADF describing his relationship with his acquaintance and how he perceived his acquaintance. For the purpose of this study, the scores on Total Friendship (TF) and Stimulation Value (SV) were used. Only individuals attaining either the highest five or lowest five Total Friendship scores were used in that part of the study where attitude dissimilarity was the dependent variable. In other words, five individuals who rated the friendship as strong were compared to five individuals who rated the friendship as weak. In like manner, a comparison was made between those attaining the highest five Stimulation Value scores and those attaining the lowest five scores. This was then a comparison between those who perceived their acquaintance as being stimulating and those who perceived their acquaintance as being nonstimulating. In analyzing the effects of actual or perceived attitude dissimilarity and attitude strength on the Total Friendship variable, the ten TF scores representing individuals who



perceived their acquaintance as most similar to themselves on strongly held attitudes were compared to the ten TF scores representing the ten subjects who perceived their acquaintance as being least similar to themselves on strongly held attitudes. A similar procedure was followed for ascertaining the relationship between perceived attitude dissimilarity on weakly held attitudes and degree of friendship. This procedure was repeated using the degree of actual attitude dissimilarity on strongly or weakly held attitudes as the independent variable.

#### Main Analyses

The data were analyzed using a different 2 X 2 factorial analysis of variance for each of the following relationships:

1. Perceived attitude similarity for subjects responding to acquaintances at different levels of total friendship.
2. Actual attitude difference for subjects responding to acquaintances at different levels of total friendship.
3. Accuracy of perception for high and low friendship groups at different levels of attitude strength.
4. Perceived attitude similarity for subjects and acquaintances at different levels of stimulation value.
5. Actual attitude similarity for subjects and acquaintances at different levels of stimulation value.
6. Strength of friendship for subjects and acquaintances at different levels of perceived attitude dissimilarity.
7. Strength of friendship for subjects and acquaintances at different levels of actual attitude dissimilarity.

#### Perceived Attitude Similarity at Different Levels of Friendship

In general, the results obtained were in the predicted



direction although not reaching the .05 significance level. The results of the analysis of perceived similarity for high and low levels of friendship are summarized in Table 1. Both the high and low friendship groups estimated that their acquaintance held attitudes more dissimilar to their own when the attitude was weakly held than when the attitude was strongly held. This difference was significant at the .10 level with an  $F = 3.30$ . Although the high friendship group perceived themselves as being more dissimilar on both the strongly and weakly held attitudes than the low friendship group, this difference did not approach significance.

#### Actual Attitude Similarity at Different Levels of Friendship

Another variable examined was the actual dissimilarity between the attitudes held by the subject and those of the acquaintance. The results of the relevant analysis of variance are summarized in Table 2. Those individuals who perceived the friendship as strong had less actual attitude dissimilarity between themselves and their acquaintance than those who perceived the relationship as weak. The opposite finding was obtained when the attitude was weakly held with the high friendship group showing more dissimilarity than the low friendship group. The differences were reflected by a strong interaction effect which, although not reaching the .05 level of significance, did reach the .10 level with an  $F = 3.486$ .

TABLE 1

PERCEIVED ATTITUDE SIMILARITY FOR SUBJECTS RESPONDING TO ACQUAINTANCES  
AT DIFFERENT LEVELS OF TOTAL FRIENDSHIP

	High Total Friendship		Low Total Friendship		Combined Means			
	Strongly Held Attitudes	Weakly Held Attitudes	Strongly Held Attitudes	Weakly Held Attitudes	Total Friendship		Attitude Strength	
					High	Low	Strong	Weak
n	10	10	10	10	20	20	20	20
M	688.30	1103.10	521.00	912.40	895.70	716.70	604.65	1107.75
F			.003			.651		3.30*

\*.05 < p < .10



TABLE 2

ACTUAL ATTITUDE DIFFERENCE FOR SUBJECTS RESPONDING TO ACQUAINTANCES  
AT DIFFERENT LEVELS OF TOTAL FRIENDSHIP

	High Total Friendship		Low Total Friendship		Combined Means			
	Strongly Held Attitudes	Weakly Held Attitudes	Strongly Held Attitudes	Weakly Held Attitudes	Total Friendship		Attitude Strength	
					High	Low	Strong	Weak
n	10	10	10	10	20	20	20	20
M	839.50	1374.00	1238.10	834.40	1106.75	1036.25	1038.80	1104.20
F			3.486*			.068		.079

\*.05 < p < .10

### Accuracy of Perception at Different Levels of Friendship

Finally, a comparison was made between the high and low friendship groups on accuracy of perception, i.e., the degree to which the subject accurately estimated the acquaintance's attitudes. These results, while nonsignificant, were in the predicted direction (See Table 3). Those who perceived the friendship as strong tended to estimate their acquaintance's attitudes more accurately when the attitude was strongly held by the subject.

### Perceived and Actual Attitude Similarity at Different Levels of Friendship

The second set of analyses compared a group of subjects who perceived their acquaintance as being stimulating with a group of subjects who perceived their acquaintance as being nonstimulating. Comparisons were made based upon the perceived and actual dissimilarity between the subject and his acquaintance. The analysis of perceived similarity and Stimulation Value is presented in Table 4. A nonsignificant difference ( $F = 1.882$ ) in the predicted direction was found between the high and low stimulation value groups. It was found that the group which perceived their acquaintance as being most stimulating and capable of generating new ideas perceived their acquaintance as being attitudinally more dissimilar than did the group who perceived their acquaintance as low in Stimulation Value. No significant relationship between actual attitude similarity and degree of Stimulation Value was found (See Table 5).



TABLE 3

ACCURACY OF PERCEPTION FOR HIGH AND LOW FRIENDSHIP GROUPS  
AT DIFFERENT LEVELS OF ATTITUDE STRENGTH

	High Total Friendship		Low Total Friendship		Combined Means			
	Strongly Held Attitudes	Weakly Held Attitudes	Strongly Held Attitudes	Weakly Held Attitudes	Total Friendship		Attitude Strength	
					High	Low	Strong	Weak
n	10	10	10	10	20	20	20	20
M	618.80	705.50	1234.00	708.10	661.50	971.00	926.00	706.50
F		2.28				2.32		1.17

TABLE 4

PERCEIVED ATTITUDE SIMILARITY FOR SUBJECTS AND ACQUAINTANCES  
AT DIFFERENT LEVELS OF STIMULATION VALUE

	High Stimulation Value		Low Stimulation Value		Combined Means			
	Strongly Held Attitudes	Weakly Held Attitudes	Strongly Held Attitudes	Weakly Held Attitudes	Stimulation Value		Attitude Strength	
					High	Low	Strong	Weak
n	10	10	10	10	20	20	20	20
M	698.10	900.00	529.00	346.43	799.05	520.70	613.55	706.20
F			.290		1.882		.269	



TABLE 5

ACTUAL ATTITUDE DIFFERENCE FOR SUBJECTS AND ACQUAINTANCES  
AT DIFFERENT LEVELS OF STIMULATION VALUE

	High Stimulation Value		Low Stimulation Value		Combined Means			
	Strongly Held Attitudes	Weakly Held Attitudes	Strongly Held Attitudes	Weakly Held Attitudes	Total Friendship		Attitude Strength	
					High	Low	Strong	Weak
n	10	10	10	10	20	20	20	20
M	853.60	838.60	1100.90	560.80	846.10	830.85	977.25	699.70
F			1.1090			.004		1.239

## Strength of Friendship at Different Levels of Perceived and Actual Attitude Dissimilarity

In discussing the findings relevant to the Total Friendship and Stimulation Value variables, attitude similarity was viewed as a function of attitude strength and Total Friendship or attitude strength and Stimulation Value. Further analyses examined the relationship in a different direction, i.e. the strength of friendship as a function of actual or perceived attitude similarity and strength of attitude. Results for the strength of friendship at different levels of attitude similarity are summarized in Table 6. Though not at a statistically significant level, this analysis suggests a possible relationship between the size of the perceived attitude dissimilarity and the strength of the friendship. Those who perceived a large discrepancy between their attitudes and those of their acquaintance tended to perceive the friendship as strong. On the other hand, those who perceived a small amount of attitude dissimilarity tended to view the friendship as weak.

The analysis of the effects of attitude strength and actual attitude dissimilarity on the strength of the friendship reveals an interaction effect ( $F = 6.60$ ;  $p .025$ ). These results are summarized in Table 7. The data suggest that, on strongly held attitudes, the less actual attitude dissimilarity, the stronger the subject estimated the friendship to be. The opposite finding was true for the weakly held attitudes where it was found that the greater the actual attitude dissimilarity, the stronger the relationship



TABLE 6

STRENGTH OF FRIENDSHIP FOR SUBJECTS AND ACQUAINTANCES AT  
DIFFERENT LEVELS OF PERCEIVED ATTITUDE DISSIMILARITY

Strongly Held Attitudes		Weakly Held Attitudes		Combined Means			
Large Perceived Attitude Dissimi- larity	Small Perceived Attitude Dissimi- larity	Large Perceived Attitude Dissimi- larity	Small Perceived Attitude Dissimi- larity	Attitude Strength		Perceived Attitude Dissimilarity	
				Strong	Weak	Large	Small
n	10	10	10	20	20	20	20
M	19.80	15.80	18.30	17.80	15.90	19.05	14.70
		.02		.59		3.30*	

\*.05 &lt; p &lt; .10

TABLE 7

STRENGTH OF FRIENDSHIP FOR SUBJECTS AND ACQUAINTANCES  
AT DIFFERENT LEVELS OF ACTUAL ATTITUDE DISSIMILARITY

	Strongly Held Attitudes		Weakly Held Attitudes		Combined Means			
	Large Attitude Dissimi- larity	Small Attitude Dissimi- larity	Large Attitude Dissimi- larity	Small Attitude Dissimi- larity	Attitude Strength		Attitude Dissimilarity	
					Strong	Weak	Large	Small
n	10	10	10	10	20	20	20	20
M	18.00	22.70	20.70	14.20	20.35	17.45	14.35	18.45
		6.60*			.17		1.77	

29

\*p < .025



was perceived to be.

## CHAPTER IV

### DISCUSSION

#### Perception of Attitude Similarity

Under Byrne's (1969) model, it would be predicted that the group who perceived their acquaintance as most attitudinally similar would tend to see their acquaintance as more attractive. The results obtained in the present study do not support such a prediction and suggest the possibility that the opposite is more often true. The group of subjects who perceived their friendship as strong perceived their acquaintance as being more dissimilar from themselves on both strongly and weakly held attitudes. These results, while not reaching significance, might be explained in terms of Goldstein and Rosenfeld's (1969) study where they concluded that secure subjects were just as likely to be attracted to dissimilar others as similar others. While the authors were using security as a personality variable, perhaps those perceiving the relationship as strong felt more secure with their acquaintance and had less need to perceive their acquaintance as similar. Aronson and Worchel (1966) point out that if the subject perceived himself as being liked, he was more likely to associate with dissimilar others. Since it is assumed that a person who feels his friendship with another person is strong will also perceive that person as liking him, perhaps



attitude similarity becomes less important. The low friendship group, on the other hand, may feel less secure with and less well liked by their acquaintance. Hence, in order to minimize the possible threat to the individual's attitude and value system, he will perceive the acquaintance as similar.

Under Byrne's (1969) model, no attempt is made to differentiate between the varying degrees of strength of an attitude and its effects on the degree of attraction toward the stimulus person. The model suggests that perceived attitude similarity is linearly related to attraction. That is, the higher the proportion of similar attitudes, the greater the degree of attraction. Under this model it would be predicted that, regardless of strength of friendship, no difference in the amount of perceived dissimilarity should exist based upon how strongly the attitude is held. It would be predicted that the high friendship group would perceive themselves as being similar on both strongly and weakly held attitudes. The results, while not reaching a significant level, did suggest that both the high and low friendship groups tended to perceive their acquaintance as being more dissimilar from themselves on weakly held attitudes than on strongly held attitudes. It was also found that those who perceived their acquaintance as being more attitudinally dissimilar from themselves estimated that their friendship with their acquaintance was stronger than did those who perceived their acquaintance as being less



attitudinally dissimilar. These findings are compatible with Wright's (1972) model. Wright feels that the extent to which one acquaintance feels the other is stimulating and capable of introducing new ideas may be an important variable in friendship formation. He refers to this component as Stimulation Value. The results might then suggest that people, regardless of how strongly they perceive the friendship, prefer to see their acquaintance as being similar and therefore supportive or consensually validating on strongly held attitudes while being dissimilar and therefore stimulating on weakly held attitudes. In view of the previous finding that the high friendship group perceived more dissimilarity on both strongly and weakly held attitudes than did the low friendship group, it may be that, as a friendship develops, consensual validation becomes less important and Stimulation Value becomes more important.

If perceived attitude dissimilarity and Stimulation Value are related, then it could be predicted that those who perceive their acquaintance as being highly stimulating will also perceive their acquaintance as being more dissimilar than those who perceive their acquaintance as being low in Stimulation Value. The high Stimulation Value group perceived their acquaintance as being more attitudinally dissimilar from themselves than did the low Stimulation Value group. This would tend to support the impression that Stimulation Value and perceived attitude similarity are related



Actual Attitude Similarity

Perhaps as important as the way a person perceives another's attitudes are the attitudes as they are actually held by the Target Person. Newcomb (1961) found that, as people become better acquainted, their perceptions become more accurate. Kerckhoff and Davis (1962) suggest that, as couples began to know each other better, there would be a "filtering process" whereby, if acquaintances survived early disagreement, presumably as a result of finding that their perceptions of the acquaintance did not match reality, i.e., the way the person was, variables other than attitude similarity might be important. Newcomb then would predict that, between subjects who saw their friendship with each other as strong, there would be less actual attitude dissimilarity than between a pair of individuals who perceived their friendship as weak. Kerckhoff and Davis might predict the opposite relationship to hold true. Because of the conflicting nature of previous research, no hypothesis was advanced in this regard. The results obtained are difficult to interpret in light of Newcomb's findings or those of Kerckhoff and Davis.

The results suggest that those who perceived the friendship as strong tended to be more similar to their acquaintance on strongly held attitudes and more dissimilar on weakly held attitudes than were those who perceived the friendship as weak. A comparable finding came to light when strength of friendship was the dependent variable. Those who were attitudinally similar to their acquaintance on the



strongly held attitudes perceived the friendship as stronger than did those who were attitudinally dissimilar on the strongly held attitudes. The opposite effect was found for the weakly held attitudes. Those who were attitudinally dissimilar from their acquaintance on the weakly held attitudes rated their friendship as stronger than the group who exhibited little actual attitude dissimilarity. Newcomb's model would predict the finding that attitude similarity on strongly held attitudes is related to strength of friendship but does not explain the negative relationship found between attitude similarity and strength of friendship on the weakly held attitudes. In like manner, while Kerckhoff and Davis' hypothesis can explain the results found for weakly held attitudes, their explanation cannot account for the results obtained on the strongly held attitudes.

Wright's (1972) model appears to be capable of dealing with the apparent anomaly. He has suggested that a variable in friendship formation is the Person-qua-Person dimension. Since this deals with the genuineness of the relationship, it would be anticipated that those who perceive another as being high in friendship will reveal more of their "true" feelings. Hence, those high in friendship should be capable of more accurately perceiving the actual attitudes of their acquaintance than someone perceiving his friendship as weak. Therefore, it might be that the amount of discrepancy between the perceived attitude similarity and the actual attitude similarity would be less for the high friendship



group than for the low friendship group. The results would tend to support this idea. On the strongly held attitudes, the discrepancy between the high friendship group's perception of the acquaintance's attitudes and the actual attitudes as held by the acquaintance was less than the discrepancy between the low friendship group's estimate and their acquaintance's actual attitudes. This would suggest that the high friendship group perceives more accurately their acquaintance's attitude when this attitude is strongly held by the subject. No such differences were found on the weakly held attitudes suggesting that both the high and low friendship groups' perceptions were relatively accurate. It might be concluded from these findings that those who perceive their friendship as weak may simply reflect back to their acquaintance those attitudes which they feel the acquaintance may wish to hear without revealing many of their own true feelings and attitudes. As a result, the low friendship group perceives similarity on strongly held attitudes which are, in actuality, different. The low friendship group may feel it is "safe" to reveal themselves on the weakly held attitudes; hence, they are considerably more accurate in perceiving these attitudes.

#### Conclusions and Suggestions for Future Research

Since this study dealt with intact groups at the various friendship levels, it was only possible to indicate differences that currently exist between these groups. It was found that the stronger the friendship, the more attitude

dissimilarity was perceived between the subject and his acquaintance. This finding was interpreted in terms of Wright's Stimulation Value. This type of study does not reveal whether the friendship became strong because of Stimulation Value or if Stimulation Value increased because of the strengthening of the friendship. Further research is needed to clarify this point.

It was suggested that those perceiving the friendship as strong perceived more accurately their acquaintance's attitudes when the attitudes were strongly held than did those in the low friendship group. This was interpreted in light of Wright's Person-qua-Person variable. A follow-up study designed to explore this relationship is indicated.



## CHAPTER V

### SUMMARY

The investigation was designed to determine the degree to which the strength of the held attitudes interacted with Total Friendship (TF) in affecting perceived and actual attitude similarity. A second part of the study was designed to determine the relationship between Stimulation Value (SV) and perceived attitude similarity. Third, the relationship between accuracy of perception and strength of friendship was empirically assessed. Finally, an effort was made to explore the role of actual and perceived attitude similarity and strength of attitude on the strength of friendship. It was hypothesized that both the high and low friendship groups would perceive a greater attitude similarity between themselves and their acquaintance on strongly held attitudes than on weakly held attitudes. Secondly, those who perceive the friendship as strong will perceive greater attitude dissimilarity than will the low friendship group. Third, Stimulation Value (SV) would be related to attitude dissimilarity. Finally, it was hypothesized that greater actual attitude dissimilarity will exist between weakly held attitudes than between strongly held attitudes for the high friendship group.

To test these hypotheses, eighteen pairs of

Introductory Psychology students who had known each other for at least six months were administered an attitude questionnaire with instructions to complete it so it reflected their own feelings. Next, they were asked to complete it as they felt their acquaintance had completed it. Finally, they were administered the Acquaintance Description Form (ADF).

The results were analyzed using seven 2 X 2 factorial designs. The results, as a whole, were in the predicted direction, although not always reaching significance. It was found that the high friendship group perceived their acquaintance as less similar than the low friendship group. Secondly, both groups tended to perceive their acquaintance as more similar on strongly held attitudes than on weakly held attitudes. Third, Stimulation Value (SV) was found to be related to attitude dissimilarity on weakly held attitudes. On strongly held attitudes, a directional, but nonsignificant, relationship was also found between attitude dissimilarity and SV. It was determined that the high friendship group was more similar to their acquaintance on strongly held attitudes than on weakly held attitudes. The opposite relationship was found for the low friendship group. It was also found that, on strongly held attitudes, the high friendship group tended to perceive their acquaintance more accurately than did the low friendship group. These findings were interpreted in terms of Wright's (1972) friendship model. It was felt that those scoring high in Total Friendship probably felt that they



were "liked" and therefore could tolerate more overall perceived attitude dissimilarity than the low friendship group. It was felt the finding that greater perceived dissimilarity was found on weakly held attitudes could be interpreted as lending some support to the concept of Stimulation Value as having a place in friendship maintenance. This concept was supported by the indication that attitude dissimilarity appears to be related to Stimulation Value. Finally, the strong friendship group's more accurate perception of their acquaintance's attitudes was interpreted in terms of the Person-qua-Person variable.

APPENDICES





9. I would invite a person of another race into my home.

Never		With some reservation		Without hesitation
:	:	:	:	:

---

10. Belief in an all powerful Supreme Being is naive and childish.

Strongly disagree		Neutral		Strongly agree
:	:	:	:	:

---

11. If I had a friend who dated somebody of a different race, I would

Respect my friend a great deal more				Respect my friend a great deal less
:	:	:	:	:

---

12. No woman, unless her life is in danger by gining birth, has the right to decide that she should have an abortion.

Strongly agree		Neutral		Strongly disagree
:	:	:	:	:

---

13. A college education is the best way to get ahead in life.

Strongly agree		Neutral		Strongly disagree
:	:	:	:	:

---

14. Capital punishment should be used because it deters crime.

Strongly disagree		Neutral		Strongly agree
:	:	:	:	:

---

15. When I listen to a friend describe the action of last week's game, as a rule, I feel

Nothing		Some emotion		A great deal of emotion
:	:	:	:	:

---

16. If someone were to disagree with my beliefs about God, I would

Evoke a great deal of effort in convincing him of my point of view				Offer no arguments
:	:	:	:	:

---

17. I am trying this semester to get

Just pass	D's and C's	C's	B's and C's	B's	A's and B's	A's
:	:	:	:	:	:	:

---

18. People who drink are as a general rule people who can't face life's problems.

Strongly agree		Neutral		Strongly agree
:	:	:	:	:

---



19. The sports program at U.N.D. is essential to student morale.

Strongly disagree	Neutral	Strongly agree
: : :	: : :	: : :

20. If you were to come into possession of the key to a very important test you were to take and you did not have time to study for the test would you

Return the key with- out looking at it	Briefly skim over it	Memorize the key and take the test
: : :	: : :	: : :

21. If I were to hear of an unmarried college student who had gone to New York to have an abortion, I would have

No feelings	Some feelings	Strong feelings
: : :	: : :	: : :

22. A college education has been overrated as a "key to success."

Strongly agree	Neutral	Strongly disagree
: : :	: : :	: : :

23. The time and money spent on sports at U.N.D. might better be spent on academic activities.

Strongly agree	Neutral	Strongly disagree
: : :	: : :	: : :

24. If I were to see an obviously intoxicated individual in a public place during the day, I would feel

Nothing	Mild disgust	Strong disgust
: : :	: : :	: : :

25. I would speak before a group that did not hold my opinion toward capital punishment.

Never	Maybe	Without hesitation
: : :	: : :	: : :

26. If there were more interracial marriages, there would be better relations between the races.

Strongly agree	Neutral	Strongly disagree
: : :	: : :	: : :

27. Men need the strength found in devotion to a personal God.

Strongly agree	Neutral	Strongly disagree
: : :	: : :	: : :

28. I would be a guest speaker at a meeting and discuss the topic of abortion.

Strongly agree		Maybe		Strongly disagree
:	:	:	:	:

---

29. When I heard that the California Supreme Court ruled that capital punishment was unconstitutional, I felt

Strong approval		Neutral		Strong disapproval
:	:	:	:	:

---

30. If I really liked an individual of the opposite sex of another race, I would date that person

Never		Yes, but with some reservations		Without hesitation
:	:	:	:	:

---

31. I spend the following amount of time studying each day.

Less than 1 hour	1-2 hours	2-3 hours	3-4 hours	4-5 hours	5-6 hours	Over 6 hours
:	:	:	:	:	:	:

---

32. Indicate how often during this academic school year you attended Sioux games.

Never		About half the home games		All the home games
:	:	:	:	:

---

33. Because some tests are so difficult, it is not only necessary but acceptable to cheat.

Strongly agree		Neutral		Strongly disagree
:	:	:	:	:

---

34. If you accidentally saw one of the answers on the test of the person in front of you and you knew he was a straight A student and you were not sure of your own answer which differed from his, would you

Leave your answer as it is	Leave your answer but only with some hesitation	Change your answer but with some hesitation	Change your answer without hesitation
:	:	:	:

---

35. Most well adjusted people get drunk occasionally.

Strongly agree		Neutral		Strongly disagree
:	:	:	:	:

---



36. I would vote on a referendum calling for the continuance or abolishment of capital punishment.

Never		With some hesitation		Without hesitation
:	:	:	:	:

---

37. If I were to receive an invitation to speak at a seminar and express my views concerning the place of God in my life, I would

Accept without hesitation		Accept but with some reservations		Not accept
:	:	:	:	:

---

38. Abortion on demand should be legalized throughout the United States.

Strongly disagree		Neutral		Strongly agree
:	:	:	:	:

---

39. If someone were to get drunk at a party, he should feel

Ashamed of himself		Have no strong feelings one way or the other		Enjoy himself and have a good time
:	:	:	:	:

---

40. I feel that belief in a personal God is very essential to my life.

Strongly agree		Neutral		Strongly disagree
:	:	:	:	:

---

## APPENDIX B

### ACQUAINTANCE DESCRIPTION FORM

#### Statements

This form lists some statements about your reactions to an acquaintance called the Target Person (TP). Please indicate your reaction to each statement on the special answer sheet you have been given. Perhaps some of the situations described have never come up in your relationship with TP. If this happens, try your best to imagine what things would be like if the situation did come up.

1. TP can come up with thoughts and ideas that give me new and different things to think about.
2. If I were short of cash and needed money in a hurry, I could count on TP to be willing to loan it to me.
3. TP's ways of dealing with people make him (or her) rather difficult to get along with.
4. TP has a lot of respect for my ideas and opinions.
5. TP is a conscientious person.
6. If I hadn't heard from TP for several days without knowing why, I would make it a point to contact him (her) just for the sake of keeping in touch.
7. TP keeps me pretty well informed about his (her) true feelings and attitudes about different things that come up.
8. When we get together to work on a task or project, TP can stimulate me to think of new ways to approach jobs and solve problems.
9. If I were looking for a job, I could count on TP to try his best to help me find one.
10. I can count on TP's being very easy to get along with, even when we disagree about something.
11. If I have an argument or disagreement with someone, I can count on TP to stand behind me and give me support when he thinks I am in the right.



12. TP is fair and open-minded.
13. If I had a choice of two good part-time jobs, I would seriously consider taking the somewhat less attractive job if it meant that TP and I could work at the same place.
14. If TP were to move away or "disappear" for some reason, I would really miss the special kind of companionship he (she) provides.
15. TP is the kind of conversationalist who can make me clarify and expand my own ideas and beliefs.
16. TP is willing to use his skills and abilities to help me reach my own personal goals.
17. I can count on having to be extra patient with TP to keep from giving up on him (her) as a friend.
18. I can converse freely and comfortably with TP without worrying too much about being teased or criticized if I unthinkingly say something pointless, inappropriate or just plain silly.
19. TP is emotionally steady and even-tempered.
20. If TP and I could arrange our class or work schedules so we each had a free day, I would try to arrange my schedule so that I had the same free day as TP.
21. TP thinks and acts in ways that "set him (her) apart" and make him (her) distinct from other people I know.
22. TP can get me involved in interesting new activities that I probably wouldn't consider if it weren't for him.
23. I can count on TP to come up with really valuable advice when I need help with practical problems or predicaments.
24. I can count on having to go out of my way to do things that will keep my relationship with TP from "falling apart."
25. If I accomplish something that makes me look especially competent or skillful, I can count on TP to notice it and appreciate my ability.
26. TP is a hard-working person.
27. If I had decided to leave town on a certain day for a leisurely trip or vacation and discovered that TP was leaving for the same place a day later, I would seriously consider waiting a day in order to travel with him (her).
28. When I am with TP, I get the impression that he (she) is "playing a role" or trying to create a certain kind of "image".



29. When we discuss beliefs, attitudes and opinions, TP introduces viewpoints that help me to see things in a new light.
30. I can count on TP to be a good contact person in helping me to meet worthwhile people and make social connections.
31. I have to be very careful about what I say if I try to talk to TP about topics he considers controversial or touchy.
32. TP has confidence in my advice and opinions about practical matters and personal problems.
33. TP is a very well-mannered person.
34. When I plan for leisure time activities, I make it a point to get in touch with TP to see if we can arrange to do things together.
35. I can count on TP to do and say the things that express what he (she) truly feels and believes, even if they are not the things he (she) thinks are expected of him (her).
36. I can count on TP to be ready with really good suggestions when we are looking for some activity or project to engage in.
37. If I have some more or less serious difference with a friend or acquaintance, TP is a good person for acting as a go-between in helping me to smooth out the difficulty.
38. I have a hard time really understanding some of TP's actions and comments.
39. If I am in an embarrassing situation, I can count on TP to do things that will make me feel as much at ease as possible.
40. TP is an intellectually well-rounded person.
41. If I had no particular plans for a free evening and TP contacted me suggesting some activity I am not particularly interested in, I would seriously consider doing it with him.
42. Some of the most rewarding ideas, interests and activities I share with TP are the kinds of things I find it difficult, if not impossible, to share with any of the other acquaintances.
43. TP has a way of making ideas and topics that I usually consider useless and boring seem worthwhile and interesting.
44. If I were short of time or faced with an emergency, I could count on TP to help with errands or chores to make things as convenient for me as possible.
45. I can count on TP's acting tense or upset with me without my knowing what I've done to bother him (her).



46. If I have some success or good fortune, I can count on TP to be happy and congratulatory about it.
47. TP is a tactful person.
48. TP is one of the persons I would go out of my way to help if he were in some sort of difficulty.
49. When I am with TP, he (she) seems to relax and be himself (herself) and not think about the kind of impression he (she) is creating.
50. TP can come up with good, challenging questions and ideas.
51. TP is willing to spend time and energy to help me succeed at my own personal tasks and projects, even if he is not directly involved.
52. I can count on TP's being willing to listen to my explanations in a patient and understanding way when I've done something to rub him (her) the wrong way.
53. When we discuss beliefs, attitudes and opinions, TP listens and reacts as if my thoughts and ideas make a lot of sense.
54. TP is generous.
55. If I had just gotten off work or out of class and had some free time, I would wait around and leave with TP if he were leaving the same place an hour or so later.
56. If I were trying to describe TP to someone who didn't know him (her), it would be easy to fit him (her) into a general class or type of persons.
57. TP is the kind of person from whom I can learn a lot just by listening to him talk or watching him work on problems.
58. I can count on TP to be willing to loan me personal belongings (for example, his books, car, typewriter, tennis racket) if I need them to go somewhere or get something done.
59. I can count on communication with TP to break down when we try to discuss things that are touchy or controversial.
60. TP considers me a good person to have around when he needs someone to talk things over with.
61. TP is a thoughtful person.
62. I try to get interested in the activities that TP enjoys, even if they do not seem especially appealing to me at first.
63. When TP and I get together, I enjoy a special kind of companionship I don't get from any of my other acquaintances.

64. TP is the kind of person who is on the lookout for new, interesting and challenging things to do.
65. If I were sick or hurt, I could count on TP to do things that would make it easier to take.
66. I can count on TP to misunderstand me and take my actions and comments the wrong way.
67. TP is a good sympathetic listener when I have some personal problem I want to talk over with someone.
68. TP is a helpful, cooperative person.
69. If TP and I were planning vacations to the same place and at about the same time and he had to postpone his trip for a month, I would seriously consider postponing my own trip for a month, also.
70. TP is the kind of person I would miss very much if something happened to interfere with our acquaintanceship.



## REFERENCES

## REFERENCES

- Aronson, E., and Worchel, P. Similarity versus liking as determinants of interpersonal attractiveness. Psychonomic Science, 1966, 5, 157-158.
- Berkowitz, L., and Goranson, R. E. Motivational and judgmental determinants of social perception. Journal of Abnormal and Social Psychology, 1964, 69, 296-302.
- Byrne, D. Interpersonal attraction and attitude similarity. Journal of Abnormal and Social Psychology, 1961, 62, 713-715. (a)
- Byrne, D. Interpersonal attraction as a function of affiliation need and attitude similarity. Human Relations, 1961, 14, 283-289. (b)
- Byrne, D. Response to attitude similarity-dissimilarity as a function of affiliation need. Journal of Personality, 1962, 30, 164-177.
- Byrne, D. Attitudes and Attraction. New York: Academic Press, Inc., 1969.
- Byrne, D., and Clore, G. L. Predicting interpersonal attraction toward strangers presented in three stimulus modes. Psychonomic Science, 1966, 4, 239-240.
- Byrne, D., and Griffith, W. Similarity versus liking: a clarification. Human Relations, 1966, 6, 295-296.
- Byrne, D., and McGraw, C. Interpersonal attraction toward Negroes. Human Relations, 1964, 17, 201-213.
- Byrne, D., and Nelson, D. Attraction as a function of attitude similarity-dissimilarity: the effect of topic importance. Psychonomic Science, 1964, 1, 93-94.
- Byrne, D., Nelson, D., and Reeves, K. Effects of consensual validation and invalidation on attraction as a function of verifiability. Journal of Experimental Social Psychology, 1966, 2, 98-107.



- Byrne, D., and Rhamey, R. Magnitude of positive and negative reinforcements as a determinant of attraction. Journal of Personality and Social Psychology, 1965, 2, 884-889.
- Byrne, D., and Wong, T. Racial prejudice, interpersonal attraction and assumed dissimilarity of attitudes. Journal of Abnormal and Social Psychology, 1962, 65, 246-253.
- Crawford, A. Timing of attitude disagreement as a variable influencing friendship formation. Unpublished M.A. thesis, University of North Dakota, 1970.
- Goldstein, J., and Rosenfeld, H. Insecurity and preference for persons similar to oneself. Journal of Personality, 1969, 37, 253-268.
- Heider, F. The Psychology of Interpersonal Relations. New York: John Wiley and Sons, Inc., 1958.
- Izard, C. Personality similarity and friendship. Journal of Abnormal and Social Psychology, 1960, 61, 47-51.
- Izard, C. Personality similarity and friendship: A follow-up study. Journal of Abnormal and Social Psychology, 1963, 66, 598-600.
- Jones, E. E., and Daugherty, B. N. Political orientation and the perceptual effects of an anticipated interaction. Journal of Abnormal and Social Psychology, 1959, 59, 340-349.
- Katz, D. The functional approach to the study of attitudes. In E. P. Hollander and R. G. Hunt (Eds.), Current Perspectives in Social Psychology. (2nd ed.) New York: Oxford University Press, 1967. Pp. 336-346.
- Kerckhoff, A., and Davis, K. A. Value consensus and need complementarity in mate selection. American Sociological Review, 1962, 27, 295-303.
- Lott, A. J., and Lott, B. E. Group cohesiveness as interpersonal attraction: A review of relationships with antecedent and consequent variables. Psychological Bulletin, 1965, 64, 259-303.
- Newcomb, T. M. The Acquaintance Process. New York: Holt, 1961.



- Newcomb, T. M. The prediction of interpersonal attraction. In E. P. Hollander and R. G. Hunt (Eds.), Current Perspectives in Social Psychology. (2nd ed.) New York Oxford University Press, 1967. Pp. 292-304.
- Smith, A. J. Similarity of values and its relation to acceptance and the projection of similarity. Journal of Psychology, 1957, 43, 251-260.
- Walster, E., and Walster, B. Effects of expecting to be liked on choice of associates. Journal of Abnormal and Social Psychology, 1963, 67, 402-404.
- Winch, R. F., Ktsanes, T, and Ktsanes, V. The theory of complementary needs in mate selection. American Sociological Review, 1954, 20, 52-56.
- Winch, R. F. Complementary needs in mate selection. American Sociological Review, 1955, 21, 552-555.
- Wright, P. H. Need similarity, need complementarity and a place of personality in interpersonal attraction. Journal of Experimental Research in Personality, 1968, 3, 113-116.
- Wright, P. H. A model and a technique for studies of friendship. Journal of Experimental Social Psychology, 1969, 3, 103-109.
- Wright, P. H. A conceptual model for studies of friendship. University of North Dakota, 1972. (Unpublished work.)
- Wright, P. H., and Crawford, A. C. Agreement and friendship: a close look and some second thoughts. Representative Research in Social Psychology, 1971, 2, 52-69.



THE RELATIONSHIP OF PHYSICAL FITNESS  
AND SOCIAL ACCEPTANCE OF NINTH GRADE GIRLS

by

Hermelle Wilson

An Independent Study

Submitted to the Department of Physical Education

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Education

Grand Forks, North Dakota

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1972

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This Independent Study submitted by Hermelle Wilson in partial fulfillment of the requirements for the Degree of Master of Education from the University of North Dakota is hereby approved by Dr. Walter C. Koenig, the faculty advisor under whom the work has been done.

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(Advisor)

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## ABSTRACT

Physical educators claim numerous attributes of their program, namely, teaching the whole person; his or her social, mental, and physical well-being. This study purports to measure the relationship of the social status in comparison with physical fitness of ninth grade girls.

The test used to measure the fitness level was the AAHPER Fitness Test. It was administered to all ninth grade girls at Jim Hill Junior High School in Minot, North Dakota. The seven items in the test battery were transformed to norms in the form of percentile scores and then averaged to obtain one fitness score for each subject.

The Moreno Sociometric Device was the testing instrument used to measure social acceptance by their peers. The subjects were instructed to list their five best friends in order, the best friend being number one, etc. These rankings were then weighted on a 6-4-3-2-1 basis which resulted in a Sociometric Index Number for each subject. The Sociometric Index Number and the average fitness score were then correlated by using the Pearson Product Moment Correlation procedure.

The statistical procedure revealed little or no correlation between social acceptance and physical fitness for the ninth grade girls at Jim Hill Junior High School.

## CHAPTER I

### INTRODUCTION

#### The Problem

Studies have been conducted in elementary schools and with senior high school boys as to the relationship of athletic ability and social status, or physical fitness levels and social status. In most cases it was found that the students who finished high in physical fitness also rated high in popularity with their peers. This may, or may not be true concerning high school freshman girls. Somewhere between the seventh and ninth grade the importance of physical abilities may diminish as other values become emphasized. In this study, a series of tests (AAHPER Physical Fitness Battery) and a sociogram were administered to a large sample of freshman girls to either support or refute the belief that fitness excellence and social prestige are related among ninth grade girls.

#### Need for the Study

The objectives of the physical education program are the education of the whole person; that is, his or her social, mental, and physical well-being. Therefore, if physical abilities and the presence of skills do not contribute significantly to a student's social status, the objectives of the physical education program are not being entirely met. If this be the case, physical educators should look into the possibility of doing something to make physical attributes important in the eyes of



the peer group. The highly skilled person is probably envied and respected by her peers, but for these same skills, may not receive any social benefits. It is hoped that the results of this study will reveal the relationship, if it exists, between physical fitness and social prestige.

Physical educators list social acceptance or socialization as one of the major areas of learning in physical education. In elementary school, the skills and abilities of individuals seem to be very important in the eyes of the peer group. The children know the names of the individuals in class that excel in sport activities. These individuals are the ones that are chosen first in team games, and are cheered on in competition, whether they are male or female.

In the case of the female students, one wonders if the importance of physical fitness and skills carry on in the upper grades. If it does, is it still as important when they reach the age of adolescence?

In teaching both ninth grade and seventh grade girls in a junior high school, this researcher feels there is a change somewhere along the way that diminishes the importance of physical abilities by the time the girls have reached the ninth grade. The research and study conducted here may support, or disprove, a theory that a relationship does exist between physical fitness and social status and acceptance by peers among ninth grade girls. If little or no relationship exists, then perhaps physical educators should re-evaluate their programs and become aware of the need for more socialization in their classes.

The manner in which students react in class to certain activities has a lot to do with the atmosphere set up by the teacher. If the class is well planned and the instructor is excited about the unit being



taught, the class will be a happier and a more learned class. Another result of such an environment is the attitude of students toward each other. Socialization and prestige for fitness excellence should be relatively high in such a setting.

The power of peer groups is very intense. If young people believe something is accepted in the eyes of their peers they will work hard to attain it. If, in fact, physical fitness levels are not important as far as the values of the peer group, maybe physical educators should strive to make it so.

#### Delimitations

This study was delimited to measure nothing more than the relationship that existed between physical fitness and social acceptance among ninth grade girls. The subjects for this study were a non-random sample of 158 ninth grade girls enrolled at Jim Hill Junior High School in Minot, North Dakota.

The AAHPER Youth Fitness Test was the measuring tool used to determine a fitness score, and the Moreno Sociometric Device was the measuring tool for social acceptance. The statistical analysis to determine the correlation coefficient was the Pearson Product Moment procedure. It was arbitrarily decided that a Pearson coefficient of  $+0.50$  or greater must be present for the relationship to be significant.

#### Limitations

This study did not take into consideration any previous experience or physical condition of the body prior to the study. Furthermore, no control was exercised to regulate outside activities or other physical education activities of the subjects.



A possible weakness of this study was the fact that some of the girls had many classes together while other girls had but a few classes together. In rare instances, some of the subjects met only in the physical education class. This limited acquaintshp exposure and may have influenced the choice of friends. Also, the subjects were instructed to list only girls in the ninth grade at Jim Hill Junior High School, and it is entirely possible that their best friends were in different grades, or attending other schools.

#### Definition of Terms

AAHPER - American Association of Health, Physical Education and Recreation.

JUNIOR HIGH SCHOOL - grades seven, eight and nine.

PEER GROUP - A group of individuals of one age level. In this study it shall be restricted to the female sex.

PHYSICAL FITNESS - An all-around well-being. Physical fitness includes more than just muscle tone; it is a state of being fit mentally, emotionally and socially as well.

SOCIOGRAM INDEX - The total points accumulated by each subject in the sociometric device.

SOCIOMETRIC TEST - A test devised to rate the popularity or social scale of the students as selected by the subjects in the study. This study utilized the Moreno Sociometric Testing Device.



## CHAPTER II

### REVIEW OF LITERATURE

The main objective of a physical education teacher is to help students understand the importance of physical activity for their health, recreation, achievement needs, social life, and for their personal development (Osterman, 1972).

There are many benefits of physical education. One of the benefits as seen by William Morgan (1968) was:

Psychological Benefits: The importance of physiological well-being in the maintenance of emotional good health is almost universally accepted. Individuals who exercise regularly claim a general feeling of well-being even when there is no significant change in fitness measures. Exercise also helps people to control tensions. Exercise therapy is recognized as an important adjunct in the "total-push" concept of psychiatric rehabilitation. It has been found that a decrease in depression fatigue occurs following exercise. Exercise is also recognized as valuable in cognitive-perceptual motor therapy with disturbed children.

Another important aspect in the program of physical education is the importance of cardiovascular health.

Individuals engaged in active occupations have a lower incidence rate of heart disease and a better recovery record. Mild exercise increases fat tolerance, activates the fibrinolytic system (pertaining to protein component of the blood), and reduces the chances of internal clotting after surgery. Strenuous exercise is more efficient in producing bradycardia (slowness of the heart) and cardiac hypertrophy (increase in size other than natural growth) with their attendant cardiovascular health benefits (Burt, 1968).



Another benefit of physical education is mental abilities and learning. Although additional research is needed, especially with the "normal" individual, dramatic gains have been noted in the intellectual efficiency of mentally retarded who have had planned programs of physical activity. Significant increases in the I.Q.'s of mentally retarded children have been observed as well as gains in their physical abilities. A low positive relationship has been shown to exist between physical fitness and academic achievement. One cannot be certain whether individuals exhibit greater academic success because they are physically fit or whether individuals who experience greater academic success choose to exercise more frequently than others. It appears, however, that access to opportunity for physical activity is a factor (Williams, 1968).

The ability to move effectively and to perform physical work is dependent in the final analysis upon the control of muscles. Terms such as strength, endurance, coordination, fatigue, and others have been in wide general use for years, yet there is a growing body of research today that seeks to understand their basic elements. The number of adherents to the theories of isometric training is dwindling as new evidence of the superiority of the traditional isotonic methods of training become better known. Recent research indicates that there may be real difference between a single muscle contraction and a repetitive action made over a period of time, suggesting that perhaps the distinction is between the susceptibility to motivation of strength tasks as compared with the tasks of endurance (Clarke, 1968).

The ability to become a member of society, or socialization, is a very important component of the physical education program. While physical education programs lend themselves to providing some of the



necessary conditions for socialization, such as models and social interaction, there is little evidence to support the idea that physical education programs have been particularly effective in preparing students for such diffuse roles as democratic citizens or persons with outstanding moral character. Only when the role, for example, democratic citizen, is characterized in much the same way by several of the child's "significant others," that is, parents, peers, sports and TV heroes, and teachers, can the child be expected to develop that role effectively. When the physical education teacher deliberately plans for this, especially with others, there is no reason to doubt that physical education programs can make a considerable contribution to socialization of boys and girls (Kenyon, 1968).

The physical educator has the responsibility of both instructing his students about the objectives of physical education and of constructing specific programs in the curriculum by which these objectives can be achieved.

The objectives to be developed are:

Organic Efficiency: Develop strong supportive musculature. The physically fit person should be able to produce effort over a long period of time without exhaustion.

Skill in Performing: One enjoys doing something that he can do well.

Knowledges and Understandings: A person can derive great satisfaction from being able to help others in learning a sports technique.

Social Concepts: One of the most significant values of sports and physical fitness is the way in which they contribute to an individual's social awareness. A sportsman learns sportsmanship. In team play, he



realizes the cooperation that is necessary, the enjoyment of striving for a group goal, the ability to lead and follow, and the pleasure and necessity of loyalty to the team (Stanley and Waglow, 1966).

Youth may learn more out of schools than they learn in them, and often they learn more from their peers than from their teachers. If physical educators develop strong, courageous, loyal citizens, conscious of their role in society, then as adults, physical educators must help children to do better things (Fait, 1966).

Lack of success in performance and generally unfavorable physical education experiences are the usual underlying causes of extreme dislike of physical education activities. Students who hate physical education class because they are always last in the race and repeatedly in error when playing ball are very numerous (Fait, 1966).

The wish for recognition is apparent in all age groups. Some gain it in socially approved ways; others find it through exceptional or anti-social behavior. Every child can do some things better than anyone else in their group, and should receive recognition for that ability (Fait, 1966).

The aim of physical education as seen by Vannier and Foster (1966) was:

To provide opportunities for the individual and the group, to learn activities that are invigorating, developmental, educational, and will lead to positive physical, social, mental, and emotional growth. This aim is to develop each person to his highest potential as a democratic citizen.

The American school has neglected too long to answer the basic needs of pupils. Too frequently little balance between activity and rest has been maintained; often only superior children or the poorly coordinated are singled out for praise or ridicule; all too often the



extreme pressing concern of the pupil for the approval of his classmates is over looked (Vannier and Foster, 1966).

People are not just biological creatures; man is an entity with social, emotional and mental needs as well as physical needs. It is known that physical, mental, emotional and social development are closely interrelated (Peterson, 1964).

Social needs are felt by people of all ages. Everyone needs to belong, feel secure, gain recognition, and be loved. Regardless of age, people need to belong, to be part of a group (Vannier and Foster, 1966).

In a study conducted by Richard Karlgaard (1969), Director of Physical Education and Athletics in the Bismarck Public Schools, it was pointed out that in the elementary school the correlation of physical fitness and social status was in fact, noticeable. Karlgaard is quoted as follows:

Within the limitations of this study, there appears to be some indication of a correlation between performance levels as measured by the American Association of Health, Physical Education, and Recreation's Youth Fitness Test and social status or peer acceptance as measured by the Cowell Personal Distance Ballot. It would seem, therefore, that giving our elementary school children opportunities to participate in a daily planned program of physical education may not only increase the youngsters' level of fitness and motor skills but, through this, make a positive contribution to his social acceptance.

Anyone observing an elementary physical education class will soon find out who the leaders in the class are. These children not only excel in sports and game activities, but because of their abilities, they are well known and liked by their peer group (Karlgaard, 1969).

In a similar test conducted by Douglas (1966) with senior high school boys, the findings indicated that there was a positive relationship between popularity and physical fitness.



A relatively large number of studies have been executed using group personality tests with both high school and college samples of males. Perhaps the most striking aspect of the research is the coherence of the picture of the athlete which emerges. Since coherence in the area of personality research is the exception and not the rule, this very consistency seems unusual. The athletes were: (a) more outgoing and socially confident, (b) more outgoing and socially aggressive, dominant, and leading, (c) higher social adjustment as rated by both teachers and peers, and also higher in prestige and social status, and self confidence, (d) stronger competitors, (e) less anxious and more emotionally stable, (f) less compulsive, (g) greater tolerance for physical pain, (h) lower feminine interests and higher masculine ones (Lowell, 1969).

Students in secondary schools have a real need for satisfying social experiences so they can develop a healthy personality and emotional maturity. These experiences must provide for close friendship, prestige, acceptance and approval by peers. The student needs experiences of leadership and followership, being part of a group, success, failure, along with opportunities to make decisions (Peterson, 1964).

Because tomorrow belongs to the children of today, the future of this nation depends on the educational experiences of youth. Tomorrow's adults must be better, stronger, and more socially sensitive than ever before (Vannier and Foster, 1966).



### CHAPTER III

#### METHODOLOGY

The research for this study was done in a laboratory setting at Jim Hill Junior High School in Minot, North Dakota. The sample for the study was the entire population of ninth grade girls enrolled at that school. The sample was considered to be non-random because the group was intact. The 158 girls involved in the study ranged in age from 14 years old to 16 years old. The subjects were all enrolled in regular physical education classes with approximately 40 students assigned to each of 4 different classes. No attempt was made to exercise control over activities outside of this study.

The purpose of the study was to determine the relationship that did or did not exist between physical fitness and social status among ninth grade girls. The AAHPER Youth Fitness Test was the measuring tool for fitness, and a sociometric testing device was utilized as the measuring tool for social status. The statistical analysis used to determine the correlation coefficient between the two sets of measures was the Pearson Product-Moment Correlation procedure. Monroe calculators were utilized to calculate the data. The paired scores were treated as ungrouped data utilizing the following formula as suggested in a text by Barrow and McGee (1971):

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}}$$



### Statement of the Null Hypothesis

A significant correlation will not exist between physical fitness and social status among 158 female subjects enrolled in the ninth grade at Jim Hill Junior High School in Minot, North Dakota. For the correlation to be significant, this researcher has arbitrarily selected a positive correlation of .50 and above. Any "r" below the .50 level will be considered insignificant.

### Identification of the Tests

The test used to measure social status was the Moreno Sociometric Device (Moreno, 1934) which was recommended to this researcher by Dr. James Brandt, Professor of Psychology and Testing at Minot State College. A sample of this test instrument appears in Table 1, p. 13.

The subjects were informed that they were taking part in an experiment, and that their selection of friends would be kept strictly confidential. The subjects were instructed to write their own name on the front side of a 3 X 5 card, and then turn the card over and list their five best friends in order on the appropriate blank spaces. The friends selected must be female and in the ninth grade at Jim Hill Junior High school. The test score cards were then collected and a sociometric index number for each student was tabulated as follows: Students who received a number one selection were given 6 points, a number two selection was worth 4 points, a number three selection 3 points, etc. Thus, the sociogram index scores were weighted on a 6-4-3-2-1 basis. These scores were not made available to the students.

The test used to measure physical fitness was the AAHPER Youth Fitness Test. It was selected by this researcher on the basis of empirical

TABLE 1

MORENO SOCIOMETRIC SCORE CARD

(front side)

---

(your name)

(back side)

Your best friend \_\_\_\_\_

2nd best friend \_\_\_\_\_

3rd best friend \_\_\_\_\_

4th best friend \_\_\_\_\_

5th best friend \_\_\_\_\_



judgment. This test consists of a battery of seven items designated to give a measure of physical fitness for boys and girls in grades 5-12.

The AAHPER Fitness raw scores were transformed into standard scores in the form of percentiles; from these percentiles, an average percentile of the 7-item test battery was determined. This average percentile was correlated with the sociogram index score to determine if a relationship did, or did not, exist between the two variables in question.

The tests in the AAHPER battery were selected to evaluate specific aspects of physical status which, taken together, give an over-all picture of the young person's general fitness. It is the only fitness test for which national norms have been established. Both age group norms and exponent classification norms are available to the physical educator. In this study, the age group norms were utilized.

The original test battery was developed in 1957 by a special committee of the AAHPER Research Council. It's work was the direct result of a National Conference called in 1956 by President Dwight Eisenhower to consider the fitness of American Youth. President Eisenhower was alerted to the poor physical record of young people through the research studies of Hans Kraus and associates published in the Journal of Health, Physical Education, Recreation and in the Research Quarterly.

The first national norms established for this test were done during the 1957-58 school year under the direction of Dr. Paul Hunsicker, University of Michigan. The Survey Research Center of the University of Michigan was delegated to the task of selecting a nation-wide representative sampling. Five years later, Dr. Hunsicker undertook a second national survey to bring the norms up to date. The technical standards for judging the AAHPER Test appear in the following paragraphs.



**OBJECTIVITY:** The objectivity of the AAHPER test was enhanced by clear test directions and precise scoring methods. The pre-test and post-test was administered with care so that the results of the tests were similar.

**RELIABILITY:** The testing was kept as reliable as possible, in that the tester was the same, and the students were the same. Other things considered were: length of test was same, the materials and equipment were the same. There is always a chance of a slight degree of non-reliability in that the student may have been in a different motivational frame or the tester may have presented the test slightly different. However, all things were standardized as much as possible and the testing was believed to be reliable.

**VALIDITY:** The test battery has established national norms based on a sample of 8500 boys and girls and is accepted as valid. The factors important in the testing were to test the speed, skill, coordination, arm and shoulder strength, abdominal strength, speed and change of direction, and cardio-vascular efficiency. The AAHPER test measures as accurately as possible what it is described as measuring.

**PERSONNEL:** In administering the test the same tester was used. In addition to the tester, there were student helpers, such as: marker, return thrower, and two measurerers in the softball throw; marker, rake girl, and two people to record the measurement in the long jump. The tester was the recorder and the timer. Each helper was told exactly how to measure and mark and were given several practice sessions in regular physical education class prior to the testing. The total number of helpers was one tester and eight student helpers. A description of the test items appear on the following pages:



ITEM I - FLEXED-ARM HANG. Purpose: to measure arm and shoulder strength. Procedure: The height of the bar should be adjusted to approximately standing height of the subject. The student should grasp the bar with an overhand grip. The subject then raises her body off the floor to a position where the chin is above the bar. The elbows should be flexed and the chest should be close to the bar. Two spotters, one in front and one in back of the subject, are recommended for assistance in getting to the "hang" position. The subject holds the hang position as long as possible. The stop watch is started as soon as the subject assumes the starting position and is stopped when the chin touches the bar, falls below the bar, or when the subject's head is tilted back to keep the chin above the bar.

ITEM II - SIT-UP. Purpose: To measure abdominal strength and endurance. Procedure: The student lies flat on her back with her knees straight and her feet approximately two feet apart. Her fingers are interlocked and placed behind her neck. Her elbows are flat against the floor or mat. Her feet are held by a partner. On the signal to start, the student sits up touching the left elbow to the right knee, returns to the original starting position, sits up again and touches the right elbow to the left knee, and returns. This exercise is repeated, alternating sides. Each time an elbow touches a knee, one point is scored.

ITEM III - SHUTTLE RUN. Purpose: To measure speed and agility. Procedure: The student stands at one of the lines with the two blocks at the other line. On the signal to start, the student runs to the blocks, takes one and returns to the starting line and places the block behind that line. She then returns to the second block which she carries across the starting line on her way back. Two students could run at the



same time if two timers are available, or if one test administrator has a split-second timer, and of course, if there are two sets of blocks. Two trials are permitted. If the students start first at one line and then at the other, it will not be necessary to return the blocks after each race. Sneakers should be worn or the student may run barefooted.

ITEM IV - STANDING BROAD JUMP. Purpose: To measure power of the legs. Procedure: The student stands behind a take-off line with her feet several inches apart. Preliminary to jumping the student dips her knees and swings her arms backward. She then jumps forward by simultaneously extending her knees and swinging her arms forward. Three trials are permitted. Measurement is from the closest heel mark to the take off line. Indoor administration is best accomplished by placing a tape measure on the floor and at right angles to the take-off line and permitting the student to jump along the line. Measurement can then be made by sighting across the tape to the point of the jump. The best jump of the three trials is recorded.

ITEM V - 50 YARD DASH. Purpose: To measure speed. Procedure: After a short warm-up period, the student takes her position behind the starting line. Best results are obtained when two students run at the same time for competition. The starter uses the command, "Are you ready?" and "Go." As she says the latter, she sweeps her arm downward as a signal to the timer. The students run across the finish line. Only one trial is permitted.

ITEM VI - SOFTBALL THROW FOR DISTANCE. Purpose: To measure arm and shoulder coordination. Procedure: Two parallel lines 6 feet apart are placed in the throwing area as restraining lines. The throw must be made from within this area. Scoring is facilitated if the field is



marked off into additional parallel lines 5 yards apart. The student, using an overhand throw, throws the ball straight down the throwing area. Steps may be taken in making the throw provided the student remains in the 6-foot restraining area. Three trials are permitted and taken in succession. Only the farthest throw is measured, using a stake. To facilitate administration, the students are asked to stand by their stakes until several students have thrown. Measurement can then be made of several records.

ITEM VII - 600 YARD RUN-WALK. Purpose: To measure endurance. Procedure: Students may run individually or they may run in groups of a dozen or more. When students run in groups, they should be paired into partners and while one student runs, his partner will listen for the timer to call out his partner's time when he crosses the finish line and relay this time to the scorer. The student may interspace his running with periods of walking and should be encouraged to pace himself. When a group is running, the timer can call out times as each student crosses the finish line.

Each student was provided with a score card which she carried with her from station to station. As she completed the assignment at each station, the judge filled in her raw score for that test item. A sample of this score card appears on Table 2, p. 19.

TABLE 2

AAHPER FITNESS TEST SCORE CARD

Name _____	Grade _____
Date _____	Height _____
Age _____	Weight _____

	<u>Raw Score</u>	<u>Age Group Percentile</u>
Bent-arm hang . . . . .	_____	_____
Sit-ups . . . . .	_____	_____
Shuttle run . . . . .	_____	_____
Standing broad jump . .	_____	_____
50 yard dash. . . . .	_____	_____
Softball throw. . . . .	_____	_____
600 yard run-walk . . .	_____	_____
Total . . . . .	_____	_____
Average Percentile. . . . .	_____	_____



## CHAPTER IV

### ANALYSIS OF DATA

The statistical data for this study were obtained by correlating two sets of scores for each of 158 ninth grade girls. This represented a non-random sample of all girls enrolled in this researcher's physical education classes at Jim Hill Junior High School in Minot, North Dakota.

The two variables in this study were physical fitness and social status. A physical fitness test score was obtained by administering the AAHPER Youth Fitness Test to each subject and then assigning them an average percentile score based on age-group norms. The sociometric score was obtained by administering the Moreno Sociometric Device whereby each subject was instructed to list in order their five best girl friends from the entire group of 158 subjects. These ranks were then weighted by assigning 6 points for a first place choice, 4 points for a second place choice, 3 points for a third place choice, etc. The total points accumulated by each subject resulted in a sociometric index number for that subject. The set of sociometric index scores were then correlated with the corresponding fitness scores.

The sociometric index scores ranged from 0 to 39 and had a mean score of 15.8. The AAHPER Youth Fitness Test scores ranged from a low score of 6 percent to a high score of 95 percent. The mean score for the fitness test was 59.8 percent, or well above the national average for that age group.

The Pearson Product-Moment Correlation Coefficient between the two sets of scores yielded a positive .222. For the relationship to be considered significant it had been arbitrarily decided that the Pearson "r" must be at or above +.50. Inasmuch as a +.222 coefficient indicated little or no relationship, the null hypothesis was accepted. The fitness level and social acceptance by peer companions of ninth grade girls at Jim Hill Junior High School was not related enough to be considered significant.



## CHAPTER V

### DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The Review of Literature left little doubt that a high positive relationship existed between peer popularity and high physical fitness levels. This was borne out in a study conducted by Karlgaard (1969) with elementary students, and in a research study conducted by Douglas (1966) with senior high school boys. Both of these researchers concluded that there did exist a positive relationship of significance between the variables, fitness and peer popularity. Furthermore, physical educators across the nation continually purport to teach social development in their curriculum.

The results of this study would refute any implication that there exists a universal relationship between fitness levels and social status among all ages and all sexes. This study conducted with ninth grade girls at Jim Hill Junior High School in Minot, North Dakota revealed a very insignificant relationship between the two variables.

Obviously, social acceptance and physical fitness are desirable components of the physical education curriculum. However, the results of this study have indicated that these two objectives are not always met. That is to say, that the quality of one variable has little or no bearing on the quality of the other variable. The values by which the girls in this study have chosen their friends were not affected by fitness levels or physical abilities. In a casual observation by this researcher it was noted that the girls did envy and respect those subjects

that excelled in the fitness test, but quite obviously it had no bearing on their choice of friends.

In conclusion, this researcher would recommend that physical educators make every effort to put fitness excellence back into its proper perspective, and that is one of prestige. If, in the elementary school, the highly skilled is a prestigious individual, then this attitude should not change with age. If it does, perhaps one of the main objectives of the physical education program is being neglected.



#### SELECTED REFERENCES

- Barrow, Harold M, and McGee, Rosemary. A Practical Approach to Measurement in Physical Education. Philadelphia: Lea and Febiger, 1971.
- Burt, John J. "Cardiovascular Health." Journal of Health, Physical Education, Recreation, XXXIX (November-December, 1968), 32.
- Clarke, David H. "Neuromuscular Consideration." Journal of Health, Physical Education, Recreation, XXXIX (November-December, 1968), 21.
- Douglas, Yarnall C. "Relationship of Physical Fitness to Selected Measures of Popularity." Research Quarterly, XXXVII No. 2, (May, 1966), 286.
- Fait, Hollis F. Special Physical Education: Adapted, Corrective, Developmental. Philadelphia-London: W. B. Saunders Company, 1966.
- Karlgaard, Richard E. "A Comparison of Physical Fitness or Motor Skill Development and Peer Acceptance in Classes of Fifth Grade Boys and Girls," Bismarck, 1969. (Mimeographed.)
- Kenyon, Gerald S. "Sociological Considerations." Journal of Health, Physical Education, Recreation, XXXIX (November-December, 1968) 72.
- Lowell, Cooper. "Athletics, Activity and Personality: A Review of the Literature." Research Quarterly, XL No.1, (March, 1969), 19.
- Moreno, J. L. Who Shall Survive. Washington, D. C.: Nervous and Mental Disease Publishing Company, 1934.
- Morgan, William P. "Psychological Considerations." Journal of Health, Physical Education, Recreation, XXXIX (November-December, 1968), 45.
- Osterman, Candy. "Lets Do Away With Physical Education." Journal of Health, Physical Education, Recreation, XL (April, 1972), 33.
- Peterson, M. F. Physical Education Guide for North Dakota Schools. Bismarck: Department of Public Instruction, 1964.

Stanley, D. K. and Waglow, I. F. Physical Education Handbook.  
Boston: Allyn and Bacon, Inc., 1966.

Vannier, Mary Helen, and Foster, Mildred. Teaching Physical Education  
in Elementary Schools. Philadelphia-London: W. B. Saunders  
Company, 1966.

Williams, Harriet G. "Learning." Journal of Health, Physical Education,  
Recreation, XXXIX (November-December, 1968), 76.