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OF SELF-ATTITUDES ON HIGH AND LOW SELF-ESTEEM

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INTERPERSONAL ATTRACTION AND REINFORCING EFFECTS
OF SELF-ATTITUDES ON HIGH AND LOW SELF-ESTEEM
A THESIS

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Abstract

An instrumental conditioning apparatus was used to investigate the reinforcing effects of self-attitudes. High and low self-esteem Ss received similar or dissimilar self-attitudes purportedly from a psychologist, on a partial or continuous reinforcement schedule across 10 acquisition trials. Results for high self-esteem Ss supported previous data suggesting their defensiveness. Escape conditioning for positive feedback was apparent as well as a somewhat smaller reward effect for positive feedback. Results were discussed in terms of Cohen's (1959) view of defensive self-esteem. Low self-esteem Ss were characterized by escape conditioning for negative self-feedback and reward conditioning for positive self-feedback.

Interpersonal attraction results were discussed in terms of Jones' (1972) analysis of esteem and consistency approaches to interpersonal attraction. It was concluded that interpersonal attraction in the present situation involved aspects of both self-esteem and self-consistency considerations. Future research considerations were also mentioned.

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Uhlenberg (1971) described self-esteem as an overall evaluation that each person has of himself on the basis of his positive and negative attributes. Self-esteem can be considered as an attitude that an individual forms and maintains toward himself along with affective emphasis suggesting approval or disapproval. One's level of self-esteem would then seem to indicate the extent to which one considers himself capable, significant and worthy. Self-esteem further is an attitude reflecting an individual's total perception of his self; his self-concept or what Super (1963) terms the "self-concept" system. Contemporary research dealing with self-concept and self-esteem has found its impetus primarily from the work done by the self theorists and their associates. Perhaps the foremost of these is Carl Rogers.

Rogers sees the self-concept as a product of two aspects of the actualizing tendency; the need for positive regard, and the need for positive self-regard, which are learned. The need for positive regard deals with the person's satisfaction at receiving the approval of others and frustration at receiving disapproval. The need for positive self-regard is an internalized version of this. It refers to the person's

satisfaction at approving and dissatisfaction at disapproving of himself. These two aspects of the actualizing tendency cause the individual to be affected by the attitudes significant others hold toward him and behave in a manner consistent with the self-concept. Research on self-concept has supported the idea that self-conceptions are learned and evaluative reactions of others are important (Backman, Secord, & Pierce, 1963; Schultz, 1966; Sherwood, 1965; VanEvra, 1967; Videlbeck, 1960).

Of primary importance in examining the social bases for self-esteem as a reflection of self-attitudes is to examine the effectiveness of self-attitudes as reinforcers. If in fact self-attitudes are responsible for a certain level of self-esteem, they should serve as reinforcers for that particular personality variable. A number of studies examining the conditionability of self-esteem shed some light on this. Consistent evidence has been obtained by several investigators in both clinical and non-clinical settings that self-attitudes function analogously to reinforcers (Allen, 1971; Bailey, 1972; Braden, 1970; Fish, 1972; Riddle, 1968).

Reitz, Robinson, and Dudley (1969) investigated self-attitudes in a discrimination learning task. Using Dymond's (1954) self-attitudes, Reitz et. al. investigated the effect of extremely and moderately endorsed self-attitudes as reinforcers with high self-esteem Ss. There were three reinforcement groups; high, moderate, and neutral. High Ss were reinforced with items they had endorsed with an eight or nine (positive reinforcement) and with a one or two

(negative reinforcement). For the moderate condition reinforcements were items endorsed with a six or seven (positive) versus three for four (negative). High Ss reinforcements were positive self-attitudes which Ss had said were very much like them; negative reinforcements for this group were negative self-attitudes which the Ss said were unlike themselves. Moderate Ss reinforcements were self-attitude items which Ss endorsed as not particularly like or unlike themselves, and negatively reinforced with negative self-attitudes which the Ss said were unlike themselves. All positive reinforcements were with desirable self-attitudes. The neutral group was reinforced with statements which were about the self, but were neutral in that they were objective, factual, and non-evaluative. Extremely endorsed self-attitude statements produced better performance than moderately endorsed self-attitude statements. A second study using low self-esteem Ss was carried out to examine the problem of similarity-dissimilarity in reinforcement of low self-esteem Ss. Positive reinforcement with positive self-attitudes, positive reinforcement with negative, negative reinforcement with positive, and negative reinforcements with negative self-attitudes were the reinforcement contingencies used. The aim was to test the generality of the similarity position of Byrne (1971) and his associates which states that similarity is of primary importance in the determination of reinforcement effects. Only the correct or incorrect responses were reinforced in each group, not both. Only the group positively reinforced with positive self-attitudes acquired the discrimination. Since only the one group acquired, similarity as a sole determinant of the reinforcement effects was ruled out. The result

only seems to indicate reinforcement of a need for positive regard. Due to extreme variability in the data, it was thought that another variable was unintentionally manipulated; that being social desirability. Also, learning was exhibited in both the correct and incorrect direction. This was explained as a result of emotional distress, defenses, conscious manipulation, or other personality patterns which may have affected the reinforcing quality of the negative self-attitudes. It may have been that Ss were merely responding to the positive statement or lack of a negative statement as a reinforcer regardless of what the experimenter defined as a correct or incorrect response. Therefore, the reinforcers may have been interpreted as information cues serving as traditional (good-bad, right-wrong) reinforcers. Golightly and Byrne (1964) did find strong effects using traditional reinforcement (right-wrong) in that discrimination learning task. The discrimination task may be confounding informational with reinforcement effects.

A more appropriate way to measure reinforcement effects might be through the use of traditional instrumental conditioning where the attempt is made to maximize the occurrence of a single response by following it with reinforcement. Lamberth, Gouaux, and Davis (1972) used a lever pull instrumental conditioning task where Ss were reinforced for making an instrumental response (lever pull) with a social reinforcer (attitudes). Specifically, Lamberth et. al. found attitudinal stimuli to be capable of reinforcing an instrumental response. Research in instrumental conditioning has shown that partial

reinforcement facilitates asymptotic response speed in acquisition during reward conditioning (Amsel, 1958; Weinstock, 1958; Spence, 1960) and impairs asymptotic acquisition response speed in escape conditioning (Bower, 1960). Lamberth et. al. used this information to examine the nature of the reinforcement and found evidence that similar attitudes serve as positive reinforcers. The same task and procedure was used by Lamberth and Dyck (1972) in examining special types of attitudes: positive personal evaluations. Once again, they demonstrated that attitudes, in this case evaluations, would reinforce an instrumental response and function as positive reinforcers.

The purpose of the present study was to use this instrumental conditioning procedure to examine the effect of self-attitudes on reinforcing an instrumental response for high and low self-esteem individuals. This knowledge may then add to understanding what type of social stimuli or self-attitudes are reinforcing to high and low self-esteem people: therefore, what is important in terms of self-attitudes in the development and maintenance of a certain level of self-esteem. Provisions were also made to examine the effect of self attitudes and self-esteem on interpersonal attraction.

Method

Pre-test: 869 introductory psychology students at the University of Oklahoma were pre-tested on 66 self-attitude items (35 positive, 31 negative) from those selected by Dymond (1954) from the Butler and Haigh self-referent items. The 66 items are arranged so that responses range from 1-9, with 1 indicating the item is very much like ones self, and 9 indicating that it is very much unlike one's self.

This measure served to discriminate high from low self-esteem individuals. The top and bottom quartiles in the range of scores were selected as high and low self-esteem groups respectively. At the same time as the self-attitude pre-test, students were administered a Social Desirability Scale (Crowne and Marlowe, 1964), A Social Avoidance and Distress Scale (Watson and Friend, 1969), and a 12-item attitude survey (Byrne, 1971). The Social Desirability Scale was used to match subjects on social desirability since previous studies have shown social desirability to at times interact with self-esteem (Wylie, 1961; Byrne, 1966; and Reitz, Robinson, and Dudley, 1969).

Subjects were matched on social desirability by scoring the Social Desirability scale of the high and low self-esteem groups. All those who stood within one standard deviation of the mean on social desirability were used in the final subject pool. The mean for 437 Ss was 15.07, and the standard deviation, 5.39. This shows close agreement with the norms reported by Crowne and Marlowe. The use of the SAD scale and 12-item attitude survey was essentially as filler items to complete the experimental rationale.

Apparatus and Procedure: Subjects were contacted to report to the experimental room about 3 weeks after the pre-test. They were seated in front of the instrumental conditioning level pull apparatus (Lamberth, 1971). The apparatus consists of a gray masonite panel 30" X 30" with a lever in the center which can be depressed 15". At the upper right of the panel is a ready light (green) with a slit below it through which reinforcements can be delivered. The lever is wired to two clocks. When the ready light comes on, clock one is

activated. As the subject begins to depress the lever, clock one is terminated and clock two is activated. When the lever reaches the bottom of the channel, clock two is terminated. In the upper left hand corner of the apparatus is a semi-circle of seven buttons labeled in gradations from pleasant to unpleasant. When a yellow light under these buttons came on, the Ss were told to press one of the buttons which most closely indicated his present feelings after reading repeated the information on a 3" X 5" card which the Ss received as a reinforcement. Five seconds after pushing a button, the clocks would reset, completing 1 trial. Five seconds after the clocks had reset, the green ready light would come on again signifying that information was again available, starting clock 1 and another trial. The specific instructions and rationale given the Ss were as follows:

We are interested in developing more accurate personality assessment measures. We would like your feelings about a new method being tested which is based on the forms you filled out earlier in the semester. Your name and identifying information were removed from the forms and they were given to a psychologist at the med-center in Oklahoma City. We asked the psychologist to say whether he felt that a certain personality statement does or does not apply to you on the basis of the information you supplied in the forms you filled out.

When I say start, you will know that information may be available. If it is available, to receive it

you must pull this lever to the bottom of the channel. Each time you pull the lever when the information is available, you will receive a card through this slit with the appropriate information. If you receive a card, please read the information aloud. This information will be a personality statement with either the word "yes" or "no" circled to indicate that yes, it does apply to you, or no, it does not apply to you according to the opinion of the psychologist who reviewed the forms that you filled out.

Whether you receive a card or not, please let us know how you feel by the use of the buttons on the left side of the apparatus when the yellow light goes on. You will note that one button is labelled unpleasant and the button at the other extreme is labelled pleasant. If you feel very pleasant after pulling the lever, you would push this button (point). If you feel very unpleasant, you would push this button (point), if you feel neutral, you would push the middle button (point). Of course, you may use the buttons in between to indicate gradations of feeling between pleasant and unpleasant. When this light (point) comes on again, you will know that information may be available again. Remember, we are interested in how you feel about this information, and to get this information, you must pull the lever. Of course, you may stop pulling the lever whenever you wish.

The information on the cards was determined as follows: The experiment consisted of high scores on the Dymond scale (high self-esteem) and low scores (low self-esteem). Each group was further subdivided into those who received similar or dissimilar self-attitude statements as reinforcers. Similarity was determined by how the Ss answered the self-attitude scale in the pre-test. Therefore, the reinforcement received and attributed to a psychologist was actually a self-attitude statement constructed to be either similar to or dissimilar from how the Ss had described himself. For high self-esteem scorers a similar statement was a statement with the "yes" circled. The self-attitude statements used were based on the Dymond scale and were all of the positive type and endorsed with a 1, 2, 3, which indicated that the Ss felt that this positive statement described himself. So, in fact, the reinforcements essentially said that yes, the psychologist also felt that this item described the person (a positive evaluation). The dissimilar statements were similarly endorsed, but the "no" was circled on the card which meant that the psychologist did not feel that the statement described the Ss (essentially disagreeing with the Ss and giving him a negative evaluation).

Low self-esteem scorers' reinforcements were based on the positive statements endorsed with a 7, 8, or 9 indicating that the Ss felt those statements were unlike them. They also received similar (in this case negative) or dissimilar (positive) statements about themselves purportedly given by a psychologist. In summary, high or low self-esteem Ss were divided into those receiving similar or dissimilar

statements, and further by those receiving a continuous or partial reinforcement schedule. Thus there were eight groups. An example of the way groups are designated is as follows:

- HSP - First letter H for high self-esteem, or
L for low self esteem
- Second letter S for similar self-attitude
statements, D for dissimilar
- Third letter P for partial reinforcement
schedule, C for continuous

The partial schedule occurred in the following sequence:

R R N R N N N N R R

After the lever pulling task the Ss were asked to fill out an interpersonal Judgement Scale (Byrne, 1961) regarding the psychologist and then were debriefed regarding the fictitious evaluations which they had received.

Results

Response Speeds: The dependent variable for the level pull apparatus was the speed score (1/latency) displayed on clock I. This was the time from the onset of the green ready light, until the Ss started pulling the lever to receive information. A 2(High or Low Self-Esteem) X 2(Similar or Dissimilar) X 2(Partial or Continuous Reinforcement Schedule) X 5(Blocks of 2 trials per trial block) repeated measures analysis of variance performed on these latency scores.

Insert Table 1 about here

It was found that there was a significant increase over trials for speed of responding ($F = 3.36$; $df = 4, 448$; $p < .02$). Also significant was the Self-Esteem X Similarity interaction ($F = 5.76$;

$df = 1, 112$; $p < .02$), and the Self-Esteem X Similarity X Schedule X Trials interaction ($F = 2.63$; $df = 4, 448$; $p < .04$). In order to get a closer view of the results, and particularly, the significant Self-esteem X Similarity interaction, and Self-esteem X Similarity X Schedule X Trials interaction, high and low self-esteem Ss were separated and their latency scores were each analyzed in a 2(Similarity) X 2(Schedule) X 5(Trial blocks) repeated measures analysis of variance. The results

 Insert Table II about here

for the high self-esteem Ss revealed a significant similarity effect ($F = 7.14$; $df = 1, 56$; $p < .01$). The results are depicted graphically in Figure 1. The analysis of the low self-esteem Ss revealed a

 Insert Figure 1 about here

significant Trials effect ($F = 2.41$; $df = 4, 224$; $p < .05$) and a significant Similarity X Schedule X Trials interaction ($F = 2.93$; $df = 4, 224$; $p < .03$). The results are shown in Figure 2.

 Insert Figure 2 about here

Attraction Scores: Attraction was measured by means of the Interpersonal Judgement Scale (Byrne, 1961) which is a six item seven point scale including items concerning Intelligence, Knowledge of Current Events, Morality, Adjustment, Personal Feelings, and Working Together in an Experiment. The last two items are scored and are summed to yield an attraction measure. Each item has a range of from 1 (the most negative response) to 7 (the most positive response). Thus, the total range of an attraction score is 2-14.

The attraction scores toward the fictitious psychologist were analyzed in a 2(Self-Esteem) X 2(Similarity) X 2(Schedule) analysis of variance. The results indicated a significant similarity effect ($F = 12.86$; $df = 1, 112$; $p < .001$), and a significant self-esteem X similarity interaction ($F = 23.96$; $df = 1, 112$; $p < .001$). Once again high and low self-esteem Ss were separated, each analyzed in a 2 (Similarity) X 2(Schedule) analysis of variance. For the high self-esteem Ss, the only significant effect was that of similarity ($F = 35.79$; $df = 1, 56$; $p < .01$). The analysis of attraction scores for low self-esteem Ss revealed no significant effects with all F values less than 1. The means appear in Table III, and the results are graphically depicted in Figure 3.

 Insert Figure 3 about here

 Insert Tables III-V about here

Discussion

The results for the high self-esteem Ss generally support an esteem point of view (Roger, 1951). Ss in the high self-esteem group appear to prefer and to be reinforced by similar, in this case positive, self-attitudes. The attraction scores also support this result, and in fact, align themselves in exactly the same order as do terminal acquisition speeds. This adds validity to the speed results and also support to the reinforcement model of attraction as elaborated by Byrne (1971) and his associates. Of additional interest, however, is the fact that the similar continuous group was faster than the similar partial group. As previously mentioned, Lamberth, Gouaux, &

Davis (1972) found a reward effect for similar attitudes and Lamberth and Dyck (1972) a similar effect for positive evaluations. Here however results suggest an escape conditioning result regarding positive self-attitudes for high self-esteem Ss. The present data suggests defensiveness of high self-esteem Ss. Schneider (1969) found results supporting his hypothesis that failure experiences motivate Ss to seek approval, while success experiences motivate individuals to avoid disapproval. Cohen's (1959) formulation of defensive self-esteem was applied to the data.

Additional research supporting the defensiveness of high self-esteem Ss is presented by Silverman, 1964; Leventhal and Perloe, 1962; Cosentino, 1970.

Applying the above results to the present data, it can be suggested that high self-esteem Ss may be acting in a defensive manner. Schneider found evidence that after initial success, people were motivated to avoid disapproval. High self-esteem Ss receive approval. The continuous group exhibits defense conditioning in that they want to avoid disapproval and this is the aversive stimulus which is terminated by a negative reinforcer (positive self-statements). The partial group may be receiving some trace or hint of disapproval in their non-rewarded trials serving to somewhat retard their level of responding.

Viewing the low self-esteem Ss there seem to be two tendencies. Comparison by Tukey's post hoc comparison technique (Kirk, 1968) yielded no significant differences between groups LDP - LSP and LDC - LSP. There was a significant difference between groups LDP - LDC

($q_{obs} = 2.91$; $q_{.05} = 2.80$). It appears that low self-esteem Ss can be characterized as sensitizers to negative feedback (Cohen, 1959; Silverman, 1964; Boyland, 1972; Fischer, Herschberger, and Winer, 1971) and seek to escape it. There is also an esteem effect, however, as can be seen by the high terminal response speed for the low-dissimilar (positive) partial group. The LSP group indicates that some negative feedback does not particularly effect low self-esteem individuals. However, the curves for the LSC and LSP group diverge dramatically at trial block 4 where the negative feedback has built up for the continuous group but not for partial group. Examination of the results for low self-esteem Ss receiving dissimilar (positive) self-attitudes reveals that positive self-attitudes do seem to function as rewards, as we see the dissimilar partial group's terminal response speed considerably above that of the continuous group. It may be that low self-esteem Ss do respond to rewards (positive self-attitudes) but that 100% positive feedback is so inconsistent to their past experience that they suspect it, and in time, do not particularly react to it. Examination of the graph (Figure 2) shows a generally parallel result for both LDP and LDC until the later trials where positive statements after non-reinforcement for group LDP have a facilitative effect, and continuous reinforcement for group LDC has an inhibitory effect. An important implication of this might be that careful application of positive reinforcement may be necessary to have any positive effect on low self-esteem people. Indiscriminant positive reinforcement may have no positive effect and possibly an inhibitory effect.

Turning our attention to the interpersonal attraction results, studies have sometimes shown a dampening effect on attraction for low self-esteem Ss (Hendrick and Page, 1970; Kimble and Helmreich, 1972). The present effect is dramatic, however, in that low self-esteem Ss show no differences in attraction. This would appear to be a result of the reinforcements received, but perhaps is influenced by the source of the reinforcements. Low self-esteem Ss receiving positive statements may feel that the psychologist's evaluation of them is inconsistent with how they feel about themselves. Perhaps they question the validity of the psychologist's evaluation which is reflected in lower attraction scores. On the other hand, those low self-esteem Ss receiving negative self-attitudes may appreciate their validity, but still have a desire to be positively evaluated. Thus there may be a positive-negative effect on the attraction score which results in a generally neutral reaction.

Jones (1972) discussed esteem and consistency approaches. For esteem approaches, it would be predicted that low self-esteem individuals should respond more favorably to positive evaluations from others, and more unfavorably to negative evaluations (Dittes, 1959). In terms of consistency approaches, high self-evaluation Ss should respond more favorably to approval than disapproval, with the opposite effect for low self-evaluators: (Jones, 1972). Jones presented an explanation for viewing interpersonal attraction in terms of these approaches. He states that accepting inconsistent and inaccurate evaluation towards oneself might have hazardous consequences in the future. The important aspect seems to be what future implication is held by present behavior in determining one's esteem in the future. Therefore, self-consistent behavior can be expected in situations having

future implications for esteem enhancement. A second way of viewing the problem is through a "personalism" explanation; this being that people prefer self-consistent evaluations from those they feel like them and inconsistent evaluations from those they feel don't like them. Finally, a third explanation concerns an S as an observer of a situation, or not personally involved. The need to make sense out of the social world he views promotes self-consistency. Where one is evaluated, his esteem and worth is involved and the person can be satisfied or frustrated depending on the evaluations of him. The present results indicate that high self-esteem people like to be positively evaluated and the attraction responses reflect this. For low self-esteem Ss, the result is not as obvious, however. There seems to be opposing tendencies towards esteem on one hand, and consistency on the other which neutralizes much of any attraction effects. For high self-esteem Ss positive feedback not only fulfills an esteem need, but the present situation also fits into Jones' first explanation in that an evaluation may have future implications. Self feedback from a psychologist would most likely carry important connotations for an individual. Therefore, positive evaluations are both esteem fulfilling and consistent with past experiences and future expectations for high self-esteem individuals. Thus, positive feedback should promote high attraction, which it does. For low self-esteem individuals getting positive self feedback; they receive esteem satisfying feedback, but this is inconsistent with experiences and expectations. For those low Ss receiving negative feedback, their esteem needs are frustrated, but the reception of negative self feed-

back is consistent with past experiences and future expectations.

In this case, as previously mentioned, positive and negative information is communicated, and has a neutralizing effect on attraction. Implicit in this explanation is the success of the psychologist manipulation. This was checked by scoring the Intelligence scale of the IJS. It would seem that derogation of a "competent" source in terms of the source's competence would be reflected by an intelligence score. The mean intelligence score over all groups was 5.17 out of a maximum 7.0 thus the psychologist was generally considered to be above average in intelligence. There seems to be then, esteem and consistency elements involving self-esteem individuals which seem to be opposing each other to the detriment of the attraction scores.

In conclusion, high self-esteem Ss seem to be reinforced by positive self feedback as has been suggested by self theorists such as Rogers. In addition, there was displayed a close relationship between reinforcement and interpersonal attraction effects for high self-esteem Ss. Data also supported previous work suggesting high self-esteem individuals as being characterized as defensive in terms of wishing to avoid disapproval as well as an esteem effect for small amounts of positive self feedback.

Low self-esteem Ss were shown to be characterized as sensitive to negative self-information, but also influenced positively by small amounts of positive feedback. Relatively large, and therefore, inconsistent, amounts of positive feedback seem to develop an inhibitory effect on instrumental responding. For low self-esteem

Ss tendencies towards escape from large amounts of negative information, and reward aspects for small amounts of positive information were found.

Results regarding interpersonal attraction were explained by means of Jones' (1972) discussion of esteem and consistency approaches to interpersonal attraction.

There are a number of other variables which need to be examined to gain a more complete picture of the reinforcing effects of self-attitudes on high and low self-esteem individuals. It would be helpful to include a moderate self-esteem control group. Lamberth and Dyck (1972) observed a reward conditioning model using positive evaluations (essentially self-attitudes) with a college sample which would generally seem to be of moderate self-esteem relative to the present sample. A same study comparison would be desirable to add evidence for this suggested difference in response tendencies for high, moderate and low self-esteem Ss. The present results suggest that level of self-esteem may have important effects on determining the nature of reinforcing effects of self-attitudinal stimuli. Most dramatically, positive self-feedback can best be described as negative reinforcement where Lamberth and Dyck found similar feedback to function as positive reinforcement where Ss of most likely moderate self-esteem.

Another area of interest is that of source credibility or competence. The psychologist was chosen as a highly salient stimulus to magnify effects. Most everyday feedback on which self-esteem

seems to be based is from less specifically competent sources. This possible difference should be examined. Finally, various schedules of reinforcement should be examined to investigate the maximum limits by which positive and/or negative feedback is maximally reinforcing. In the present study, small and large amounts of positive feedback had drastically different effects on low self-esteem Ss. Such effects need close examination for greater understanding of the dynamics of self-esteem as well as the practical applications of appropriate reinforcement sequences in attempts to raise self-esteem in clinical settings. Such research is now being planned.

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TABLE 1
ANALYSIS OF VARIANCE SOURCE TABLE FOR RESPONSE SPEEDS OF HIGH
AND LOW SELF-ESTEEM SUBJECTS COMBINED

<u>Source</u>	<u>M. S.</u>	<u>D. F.</u>	<u>F-RATIO</u>	<u>P</u>
TOTAL	0.312	599		
BETWEEN	0.713	119		
A (Self-Esteem)	0.222	1	0.3345	0.5712
B (Similarity)	1.708	1	2.5758	0.1073
C (Schedule)	2.124	1	3.2044	0.0725
AB	3.819	1	5.7598	0.0171
AC	0.602	1	0.9073	0.6552
BC	1.993	1	3.0056	0.0819
ABC	0.082	1	0.1236	0.7261
E	0.663	112		
WITHIN	0.212	480		
D (Trials)	0.700	4	3.3627	0.0101
AD	0.250	4	1.1998	0.3095
BD	0.042	4	0.2025	0.9351
CD	0.135	4	0.6485	0.6314
ABD	0.159	4	0.7645	0.5511
ACD	0.054	4	0.2605	0.9024
BCD	0.257	4	1.2360	0.2940
ABCD	0.547	4	2.6290	0.0334
E	0.208	448		

TABLE 11

ANALYSIS OF VARIANCE SOURCE TABLE FOR RESPONSE SPEEDS OF HIGH
AND LOW SELF-ESTEEM SUBJECTS SEPARATED

High Self-Esteem

<u>Source</u>	<u>M. S.</u>	<u>D. F.</u>	<u>F-RATIO</u>	<u>P</u>
TOTAL	0.304	299		
BETWEEN	0.850	59		
A (Similarity)	5.315	1	7.1408	0.0096
B (Schedule)	2.495	1	3.3520	0.0690
AB	0.638	1	0.8573	0.6388
E	0.744	56		
WITHIN	0.169	240		
C(Trials)	0.354	4	2.0965	0.0812
AC	0.134	4	0.7917	0.5337
BC	0.121	4	0.7135	0.5862
ABC	0.080	4	0.4735	0.7580
E	0.169	224		

Low Self-Esteem

<u>Source</u>	<u>M. S.</u>	<u>D. F.</u>	<u>F-RATIO</u>	<u>P</u>
TOTAL	0.320	299		
BETWEEN	0.583	59		
A (Similarity)	0.211	1	0.3635	0.5560
B (Schedule)	0.231	1	0.3979	0.5378
AB	1.436	1	2.4733	0.1176
E	0.581	56		
WITHIN	0.255	240		
C (Trials)	0.596	4	2.4074	0.0496
AC	0.068	4	0.2729	0.8947
BC	0.069	4	0.2777	0.8918
ABC	0.725	4	2.9294	0.0215
E	0.247	224		

TABLE 111
I J S MEANS

<u>Group</u>	Mean
LSC	9.67
LSP	9.60
LDC	9.64
LDP	10.67
HSC	12.00
HSP	11.33
HDC	8.73
HDP	7.87

TABLE IV

ANALYSIS OF VARIANCE SOURCE TABLE FOR IJS SCORES OF HIGH AND
LOW SELF-CONCEPT COMBINED

<u>Source</u>	<u>M. S.</u>	<u>D. F.</u>	<u>F-RATIO</u>	<u>P</u>
TOTAL	6.056	119		
BETWFEN	27.319	7		
A (Self-Esteem)	0.249	1	0.0527	0.8138
B (Similarity)	60.784	1	12.8574	0.0008
C (Schedule)	0.623	1	0.1317	0.7182
AB	113.291	1	23.9641	0.0000
AC	11.653	1	2.4649	0.1152
BC	1.487	1	0.3145	0.5830
ABC	3.146	1	0.6654	0.5782
WITHIN	4.728	112		

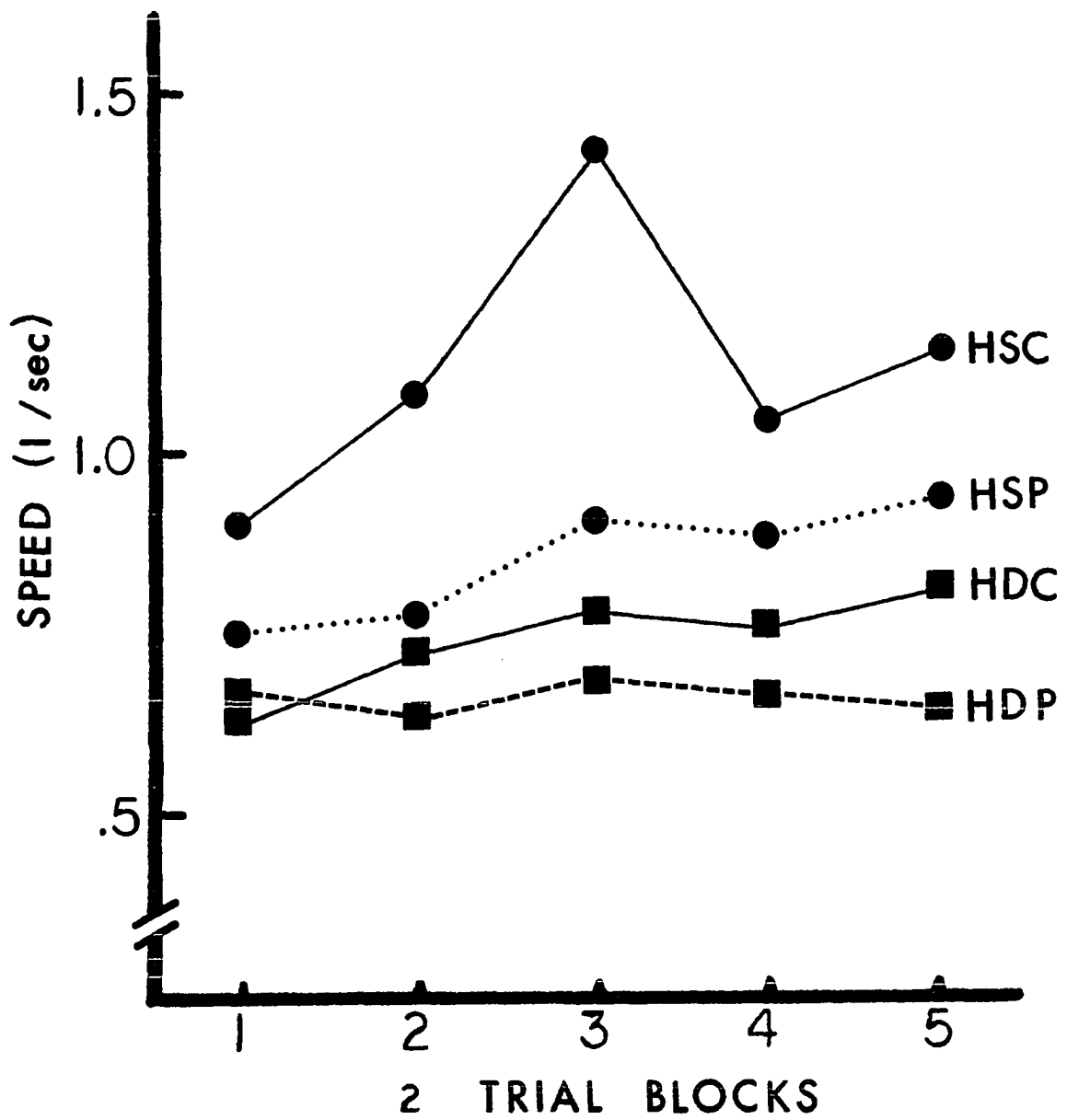
TABLE V
ANALYSIS OF VARIANCE SOURCE TABLE FOR IJS SCORES FOR HIGH AND
LOW SELF-ESTEEM SUBJECTS SEPARATED

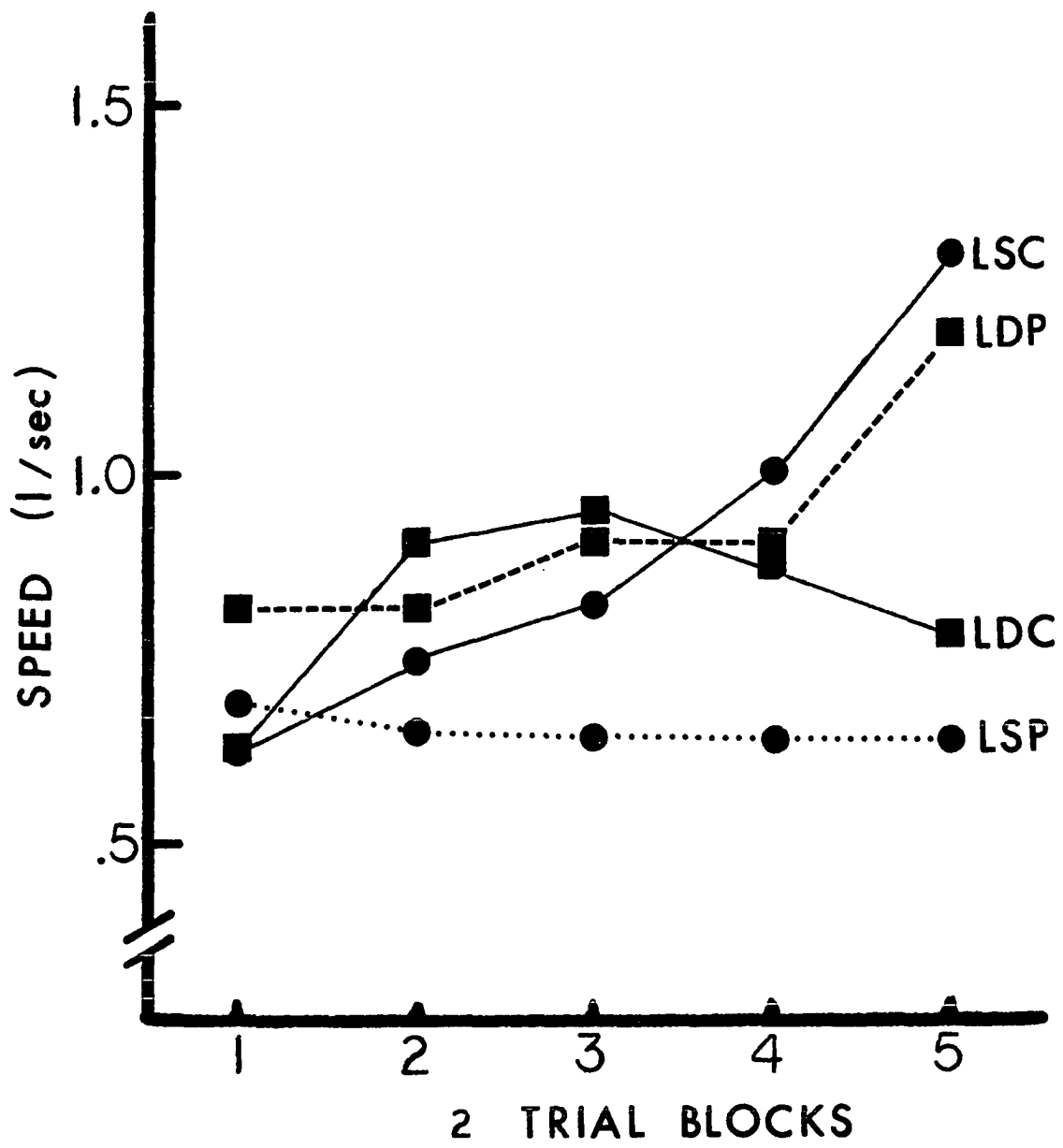
High Self-Esteem				
<u>Source</u>	<u>M. S.</u>	<u>D. F.</u>	<u>F-RATIO</u>	<u>P</u>
TOTAL	10.5760	59		
BETWEEN	59.6632	3		
A (Similarity)	170.0217	1	35.7933	<.001
B (Schedule)	8.8218	1	1.8572	<.250
AB	.1463	1	.0308	F < 1
WITHIN	4.7501	56		

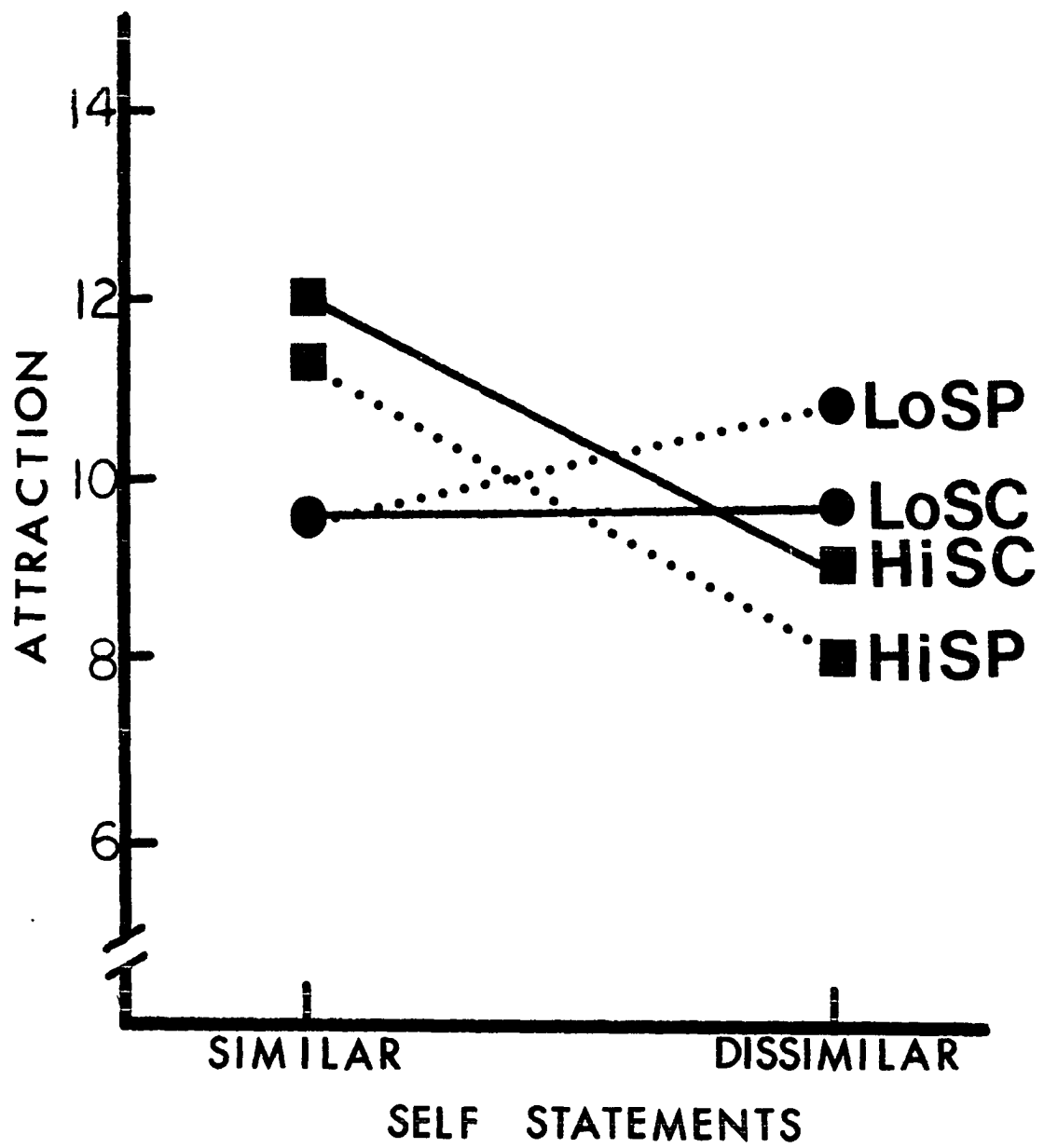
Low Self-Esteem				
<u>Source</u>	<u>M. S.</u>	<u>D. F.</u>	<u>F-RATIO</u>	<u>P</u>
TOTAL	4.6691	59		
BETWEEN	3.9990	3		
A (Similarity)	4.0539	1	.8616	F < 1
B (Schedule)	3.4568	1	.7347	F < 1
AB	4.4863	1	.9535	F < 1
WITHIN	4.7051	56		

Figure Captions

- Figure I: Response speeds for high self-esteem subjects.
- Figure II: Response speeds for low self-esteem subjects.
- Figure III: Responses for the attraction scores towards the fictitious psychologists.







APPENDIX A
LITERATURE REVIEW

Literature Review

Antecedents of Self-Esteem

Theoretical Foundations

Contemporary research dealing with self-concept and self-esteem have found their impetus primarily from the work done by the self theorists and their followers.

Perhaps the foremost self theorist has been Carl Rogers. The self theory of Rogers will be the primary theoretical focal point of this paper. Rogers states that the self concept is a product of two aspects of the actualizing tendency; the need for positive regard, and the need for positive self-regard. These are both considered to be secondary or learned needs developed in early infancy. The need for positive regard deals with the person's satisfaction at receiving the approval of others and frustration at receiving disapproval. The need for positive self-regard is more of an internalized version of this. It refers to the person's satisfaction at approving and dissatisfaction at disapproving of himself. Thus, we can see that because of the person's need for positive regard, he is sensitive to, and affected by the attitudes which significant people in his life hold toward him. Then, in the process of gaining approval and disapproval from others, he will develop a conscious sense of who he is, or what is termed a self-concept. At this time he develops a need for positive self-regard, which assures that the form the tendency toward self-actualization

will take, will favor behavior and development which is consistent with the self-concept. Rogers further states that a person is unlikely to persist in functioning incompatibly with the self-concept because this would frustrate the need for positive self-regard. The key factor present in the way Rogers views self-concept is in the fact that he sees self-concept as socially determined. Rogers states additionally that the self-concept is based on conditions of worth, or standards for determining what is valuable and what is not valuable about oneself. One will see himself only in terms of his actions, thoughts, and feelings that have received approval and support. Once one has conditions of worth, some thoughts, feelings and actions would make one feel unworthy or guilty, and hence, psychological defense comes into play. This usually results in denial or distortion.

A fully functioning person is Rogers' ideal individual. One can only reach this point by receiving unconditional positive regard. Unconditional positive regard refers to others respecting you as a person, and therefore, they accept and support your behavior even when they disagree with it. Rogers recognizes that restraints must still be exercised, but it is done in a loving and accepting way. A fully functioning person will develop no conditions of worth or defensiveness, and have a broader, deeper self-concept, with a larger amount of feelings, actions, and thoughts to express potentialities. The self-concept, in short, is more flexible and changing. Each type of individual, those with conditions of worth, and those receiving unconditional positive regard are two ideal types. Rogers explains that in reality, people have a greater or lesser amount of each quality.

Gordon Allport's view of self-concept is expressed under the general heading of propiate functioning, or functioning in a manner expressive of the self. Subheadings of propiate functioning include sense of body, self identity, self-esteem, self-extension, rational coping, self-image, and propiate striving. Allport states that the propiate functions intermingle, rather than operate separately. His view of self-esteem encompasses many of the characteristics of the self and self-concept. Self-esteem for Allport defines the bases upon which you feel worthwhile. These include ideas of the self like those of self-identity and gives relatively precise guidelines for life.

Harrry Stack Sullivan's (1953) ideas expressing self-esteem and self-concept can be seen in his "Self Dynamism". The Self Dynamism is a complex and multifaceted self-definition formed from the person's experiences with the approval and disapproval of others, leading him to behave so as to avoid the insecurity of disapproval. It is a result then of reflected appraisals from others, where the pursuit of security is achieved mainly through defensive means.

The present paper is primarily interested in the phenomenal approach to self-concept and self-esteem as expressed by Carl Rogers. However, in all of the above theorists, including Rogers, we see the importance of social antecedents to the development of self-concept. On the basis of the importance of social experiences in developing attitudes about the self, it follows that such socially determined self-attitudes are of crucial importance in understanding the development and maintenance of an individual's self-esteem or self-concept.

In the above theoretical background of self theory, the importance of self attitudes are implicit, but data integrating them into an empirical foundation for self-esteem and self-concept has been lacking. Empirical knowledge on the function of self-attitudes to self-esteem and self-concept in relation to development and maintenance of these constructs is sparse. The following literature review will attempt to provide an introduction to an experiment designed to empirically investigate the reinforcing aspects of self attitudes by using traditional procedures from instrumental conditioning.

The review will begin with definitions and characteristics of self-esteem and self-concept. Some of the techniques used to measure self-esteem and self-concept will be examined. Following this will be discussions of social determinants of self-esteem, self-esteem and achievement, and finally self-esteem and attraction.

The above areas were chosen to provide a base upon which to view self-esteem and aspects of behavior related to self-esteem and specifically, self-attitudes. In order to gain a wide understanding of the role of self-attitudes as reinforcers to self-concept, it would appear to be essential to examine areas related to their source.

Definitions and Characteristics of Self-Concept and Self-Esteem

There are almost as many different definitions of self-concept and self-esteem as there are theorists who discuss them. A review of literature concerning the self by Uhlenberg (1971) provides workable definitions for both self-concept and self-esteem.

Uhlenberg utilized what Super (1963) has termed "the self-concept system." Uhlenberg explains the usage of this term by stating that

people have many self-concepts, not just one. Self-concepts include descriptive terms (tennis player, husband, psychologist, veteran), physical (tall, caucasian), physical abilities (strong, weak), physical appearance (handsome, unattractive), health status, intellectual capacities, social skills, morals, values, hopes, desires, ideals, and general sense of happiness. In general, they are characteristics that one believes to be true about himself. They are considered to be arrived at through experience and interaction with others. Through this interaction information is acquired about oneself. Uhlenberg describes the self-concept system as a unified whole with a patterned relationship among the individual concepts. This is termed the phenomenal self- what a person seems like from his own point of view. An individual's self-concept system is unique, and seems very real to himself. Self-concepts vary in clarity, importance, but the self-concept system is explained by Uhlenberg as consistent. Lecky (1969) explained that in reference to the idea of consistency, a person seeks the type of experience which confirms and supports this unified attitude or self-concept.

Uhlenberg views self-esteem as an overall evaluation that each person has of himself; a subjective judgement made by a person after considering all of his positive and negative attributes together in terms of his own system of values. He more explicitly states "Self-esteem may be considered as an attitude that one forms and maintains toward himself and that carries affective loadings and suggests self-approval or disapproval. A person's level of self-esteem is an indication of the extent to which he considers himself capable, significant, and worthy (p. 11)." In terms of Uhlenberg's analysis

self-esteem could be conceptualized as the attitude one holds toward his self-concept system. Thus, the experiences resulting in a certain self-concept system will necessarily have an important effect on the attitude or attributes which Uhlenberg terms self-esteem.

As suggested at the onset, the formation of self-concepts occur primarily through social interaction, as was suggested by Sullivan (1953) and Rogers (1951), growing out of evaluational interaction with others.

A person perceives that significant others view him as a person of value and worth and will adopt these same attitudes as the ones he views himself with. He then comes to act in accordance with these self-attitudes.

High self-esteem individuals have positive feelings about themselves: feel wanted, worthwhile, loved, acceptable, and at least as good as others. They have confidence in their own decisions and judgements, and are less troubled with doubts and fears. They enter situations expecting to succeed, and this self-fulfilling prophecy is seen as an aid to gaining success (Uhlenberg, 1971).

Low self-esteem individuals have more negative attitudes toward themselves, and their self-concepts are characterized by feelings of unimportance, inadequacy, and weakness. They are usually unsure of their ideas and capabilities, resulting in indecision and hesitancy. They lack confidence in self assertion and are more likely to accept the ideas of others. They are inhibited and generally ineffectual in interpersonal relationships (Uhlenberg, 1971).

In terms of defense mechanisms, Uhlenberg (1971) stated that high self-esteem is its own protection to a great extent by relieving one of the need to devote ones energies to self-defense. The defense mechanisms of denial, avoidance, repression and withdrawal are those generally used by high self-esteem individuals. They are oriented towards preserving the integrity of the self.

Low self-esteem persons are characterized by the use of rationalization, projection, and reversal. They are forced to use more extreme measures of defense which then often result in reduced accuracy in thinking and perception.

Measurement of Phenomenal Self-Regard

Aspects of the phenomenal self include such areas of interest as self-satisfaction, self-acceptance, self-esteem, self-favorability, congruence between self and ideal self, and discrepancies between self and ideal self. These aspects have been more generally referred to by Wylie (1961) as "self-regard" or "self regarding attitudes". Wylie presented a thorough description of measuring instruments for phenomenal self-regard. The following discussion is primarily based on that review.

One of the foremost measurement techniques for self-regard is the Q-sort, and variations of it. In this procedure, the subject typically sorts a number of personality descriptive items into nine piles. These piles are arranged on a continuum according to the degree to which a subject feels that a certain item is like him, and then once again to the degree that it is like his ideal for himself. Each pile is then assigned a number and a correlation is computed between the pile values of the items describing the subject's real and ideal self.

A specific Q-sort is that of Butler and Haigh's self-referent items. This is a group of one hundred self-referent attitudes which has been used in research on nondirective therapy (Rogers and Dymond, 1954). These items are sorted into nine piles according to the degree they are "like me", or "I would most like myself to be", and the degree to which an item characterizes the "ordinary person". The S is then forced to make a quasi-normal distribution by putting a certain number of items into each pile. Butler and Haigh (1954) reviewed the assumptions underlying the use of this technique. They view the self-concept as consisting of an organized conceptual pattern of "I" or "me" with values attached to these concepts, and that this pattern or organization can be mirrored in terms of ordinal scale placements of statements according to the degree to which they are like "I wish to be" and in terms of discrepancies between the value assigned to an item on the self dimensions as compared to the ideal-self dimension.

Using the Butler and Haigh technique, Dymond (1954) devised a Q-sort adjustment score. Two trained clinical psychologists were asked to sort Butler and Haigh's items into two piles: those the well adjusted person should say are like him, and those that the well adjusted person should say are unlike him. Also, a group of items were gathered which the psychologists felt were irrelevant to one's adjustment status. The judges differed on only two of the one hundred items. The thirty-six irrelevant items were set aside, and four new judges were given the remaining seventy-four to sort. They were asked to make two piles; thirty-seven which a well adjusted person would say were like him (positive) and thirty-seven items that the well adjusted person would say were unlike him (negative). The self-

description of the well adjusted person was then represented as thirty-seven positive statements which were on the "like me" side of the distribution (scale position 5-8) of the well adjusted person, and thirty-seven negative indicators which were on the "unlike me" side (between 3 and 0).

Rudikoff (1954) examined the relative contributions of the self-sort and ideal sort to the total score. She found that in every case there was more shift in the self-sorts than in ideal-sorts from pre- to post therapy, and found no significant difference in the mean adjustment score of ideal sorts across the four testing points; initial, pre-therapy, posttherapy, and follow-up. The mean score of the self-sorts was significantly different ($p < .001$) between pre and posttherapy tests. It can be concluded that the self scores appear to make by far the greatest contribution to differences in scores. Additionally, this suggests a considerable amount of congruence between the individual's phenomenal ideal self and the cultural stereotype of the ideal self for the Butler and Haigh items. Wylie (1961) reports that this low inter S variance on ideal-self reports is seen on other types of self-regard measurement instruments as well (See also: Frank and Heister, 1967; Parson, Yourshaw, and Borstelmann, 1968; Truax, Schuldt and Wargo, 1968; Varble, and Landfield, 1969; Truss, 1972).

Farr and Kubine (1972) present a discussion of aspects of self-report self-concept measures. One conclusion was that evaluative responses (attitudes about the self - how one feels about himself) to real and ideal self are distinct, but those which are descriptive (concerning one's characteristics) may not be. The discussion centers around the nature of phenomenal self-reports of self-concept.

Another extremely popular type of self-regard measure is the rating scale and questionnaire. Berger (1952) developed a questionnaire using Scheerer's (1949) definition of the self-accepting and other accepting person, purporting to measure self-acceptance and acceptance of others. Included were items based on their significant relationships to total scores made by the upper and lower one-fourth of 200 Ss, and their appropriateness to a given element of the definition. Berger used four items pertaining to each element of the definition. Matched half reliability for the various subgroups was at least .746. Construct validity was investigated by looking at the correlation between paragraphs written by 20 Ss and judged by four Ss according to Scheerer's definitions. For self-acceptance the correlations was .897.

Phillips (1951) converted Scheerer's (1949) descriptions of the self and other accepting person into simple statements. Twenty-five concerned the self, and twenty-five of them concerned others. Questions on this questionnaire are all negatively phrased. Omwake (1954) found a correlation of .73 between the acceptance of self scores on Berger's and Phillips' questionnaires.

Fey (1954, 1955, 1957) has used several variations of Acceptance of Self and Acceptance of Others questionnaires. Third-year medical students split half reliability for Acceptance of Self was .84, and with 60 freshman medical students .92. The number of positive and negatively phrased items are not balanced.

Jourard has used self-cathexis and body-cathexis questionnaires (Jourard, 1957). Generally, each item is rated on a five point scale from strong positive to strong negative feelings. Self-cathexis scores have been found to correlate with Self-Ideal discrepancies .62 for males and .53 for females.

The body cathexis scale contained 46 items selected from a larger pool on the same basis as described for the self-cathexis items. Body-cathexis was inferred from the sum of the item ratings. A body anxiety score was derived for each S as the sum of the 11 items most negatively cathected by a group of same sexed Ss. The 55 item Self-Cathexis Scale and the 46 item Body Cathexis Scale were found to intercorrelate .58 for males and .66 for females. The Maslow Security-Insecurity Inventory was shown to correlate with body cathexis -.37, -.52 with self-cathexis and -.41 for body anxiety score for 47 college men and women.

Bill's Index of Adjustment and Values (Bills, Vance, and McLean 1951) uses a Self-Ideal discrepancy score as well as a direct Self-Acceptance score to measure self-regard. One-hundred-twenty-four trait names were selected from Allports' list of 17,953 traits assumed to be representative of items which occur frequently in client-centered interviews. Forty-nine items with the greatest test-retest stability were used in the final form. Only nine negative items were used in the final form, however. How often are you this sort of person (marked on a five-point scale from "most of the time" to "seldom")? How do you feel about being this way (marked on a five-point scale from "very much like" to "very much dislike")? How much of the time

would you like this trait to be characteristic of you (marked on a five-point scale from "seldom" to "most of the time")? The sum of the first type (with negative traits reversed) equals the Self Score. The sum of the second type is used as a direct measure of Self-Acceptance. The sum of the discrepancies between the first and third types is used as a Self-Ideal discrepancy from which Self-Satisfaction is inferred.

Split-half reliabilities for 100 college students ranged from .53 for self scores to .87 for discrepancies. Six-week test-retest correlations ranged from .83 for Self-Acceptance to .90 for Self. The correlation between Self and Self-Acceptance scores was .90. This of course suggests that both scales are measuring the same construct. Self-Acceptance and Self-Ideal discrepancy scores were found to correlate $-.67$. Self scores correlated .83 with Self-Ideal scores. Acceptance on Self on the IAV scale correlated .49 with acceptance of Self on Berger's scale (Omwake, 1954) and .24 with Phillip's as reported by Omwake, 1954. Wylie (1961) lists a number of other studies which found variables significantly relating to Acceptance of Self.

Cowen and Tongas (1959) found Bill's Index of Adjustment and Values to be heavily saturated with social desirability.

Mitchel (1962) performed a factor analysis of the Self-Concept section of Bill's Index of Adjustment and Values resulting in extraction of seven factors: freedom from anxiety, motivation for intellectual achievement, offensive social conduct, social poise and self-confidence, warm hearted attitude towards others, impersonal efficiency, and dependability.

Worchel's Self-Activity Inventory (1957) is a 54 item self-concept scale which describes ways of coping with hostility, achievement, sexual and dependency needs, and their frustrations. These four need areas were apt to be major sources of conflict for men adapting to military life. The measure was developed to screen maladjusted military personnel. In successive revisions only items where there was a spread in the ratings over at least four categories, with at least 10% of the ratings falling in the category which contained the smallest frequency were retained. Most items are worded negatively. The response scale ranges from 1 (never) to 5 (very often). The subject is asked to respond by completing three categories of sentences: "I am a person who....", "I would like to be a person who...", and "The average person is one who...". Five scores are derived: Sum of Self, Sum of Ideal, Sum (Self-Ideal), which is the absolute sum of individual item discrepancies across categories one and two; and Sum (Self-Other) the algebraic sum of the individual item discrepancies across categories one and three. Correlations for student and cadet samples ranged from .12 (Ideal vs Other) to .64 (Self vs Ideal). Self-Ideal discrepancy is said to index "self-ideal congruence", and (Self-Other) discrepancy is assumed to index "self-depreciation".

Eight week test-retest reliability coefficients for Self, Ideal, and Other person for 76 college students were .79, .72, and .78.

Self and (Self-Ideal) scores correlated significantly with Taylor Manifest Anxiety scores and with the Sarason Test Anxiety scores.

Strong (1962) performed a factor analysis on the Butler and Haigh O-sort, and Bills Index of Adjustment and Values, and the Worchel Self

Activity Inventory, and evaluated them for common factors and the relationship of self-concept and social desirability. Perceived Self was found to be measured by all three, and social desirability was not found to be present to any great extent in any of the three tests.

The Interpersonal Check List was developed by LaForge and Suczek (1955) to measure some variables defined by the Interpersonal Personality System (Leary, 1957). It provides a self-description, ideal-self-description, and a measure of "self-acceptance" in terms of discrepancies between self and ideal-self descriptions.

Leary, in his Interpersonal Personality System distinguished five "levels of personality": Public Communication (interpersonal impact of the subject on others); Conscious Descriptions (subject's view of self and the world); Preconscious Symbolication (subject's autistic and projective fantasy productions); Unexpressed Unconscious; and Ego Ideal (subject's view of his ideal self and his standards). Their classification plan contains 16 variables ordered around a circle, divided into four quadrants by main axes, dominance-submission, and hostility-affection. Each quadrant is subdivided into four parts, resulting in 16 subdivisions. The successive 16ths of the perimeter refer to interpersonal behavior characteristics considered to be psychologically adjacent to one another along a circular continuum. The radius of the circle indicates the intensity of a certain characteristic from normal, moderate, or appropriate which is at the center, to the extreme on the periphery. Intensity values were assigned according to two criteria: 1) whether psychologists had judged the item to be good, neutral, or bad from the viewpoint of the subject's culture; 2) the

frequency that Ss had checked the item in earlier forms (highest intensity given an adjective checked by 10% of the people, the lowest to an item checked by 90% of the people).

In scoring, items representing successive pairs of the 16 interpersonal behavior characteristics are grouped together, dividing the circle into octants. Eight raw scores are found for each S by finding the total number of words S has checked belonging to each octant of the circle. A circular profile is plotted, and each octant's radius is determined by the number of words checked by an S in a certain quadrant.

A two week test-retest correlation for 77 obese women with the data grouped by octants over an average of 8 test-retest r's was .78.

Leary states that "self-acceptance" can be inferred from the discrepancy between Level II (conscious self-description) and Level V (conscious description of ideal-self), and that this variable is very important in arousing the motivation for therapy.

Hogsett (1972) provides additional discussion for a criterion to assessing the self rating on the Interpersonal Check List.

Brownfain (1952) developed a two-part index of self-evaluation termed "stability of self-concept". On each of 25 items, S rates himself four times as to his 1) most favorable realistic (positive) self-concept; 2) his most unfavorable realistic (negative) self-concept; 3) his realistic private self-concept; and 4) his most accurate estimate of himself as he believed other people in the group saw him (social self-concept). A stability score is obtained by subtracting the Ss positive from his negative self-concept on each of 25 items, and summed across all items without regard to sign.

The split-half reliability for the stability score was .93 for 62 Ss. Brownfain stated that instability of the self-concept may be considered as a correlate of "self-esteem", and associated with "poor adjustment". He examined Ss with extremely stable and unstable self-concepts. Stable Ss gave themselves more favorable "realistic private self-concept" ratings on 21 of the 25 items with five of these differences significant ($p < .05$). Also, stable Ss had a significantly narrower range between their "realistic private" and "social self" ratings on the 25 items as a whole. Stable Ss had healthier scores on all factors but G in the G A M I N Inventory. Stable Ss received a higher mean rating from fraternity peers on nine out of ten variables on a rating scale (differing on the Intelligence Scale; unstables were mostly graduate students). The stable Ss expected a higher rating from others on nine of the ten variables, with the difference in expected adjustment ratings being significant. Finally, the stable Ss showed a significantly narrower total range between their highest and lowest estimate of where they would be rated by a fraternity brother.

Each of the components of the stability score were found by Cowen (1954) to correlate significantly with all three scores from Bill's IAV. The stability score did not however, correlate significantly with any of the Bill's scores.

The Tennessee (Department of Mental Health) Self-Concept Scale (Fitts, 1955) consists of 100 self-description items. It has no time limits, and may be administered individually or to groups. It is designed for individuals 12 years of age and up. There is a counseling form designed for use with counselors in high schools, colleges and

community agencies to aid the person in self-understanding. A Clinical and Research Form is intended for use in personality research and clinical assessment. The test manual contains a summary of evidence concerning the validity of the scale. In addition to evidence in the test manual, a number of recent studies have investigated its validity.

Brassard (1964), in a doctoral dissertation examined the effect of social desirability on the Tennessee Self-Concept Scale. It was found that the Tennessee Self-Concept Scale was not particularly sensitive to social desirability. Greenberg and Frank (1965) gave the TSCS to 100 psychology students. Comparison showed that distortion can occur in the subscales due to the development of a response set. This was thought to occur because of the homogeneous arrangement of the items. Vaschiano and Strauss (1968) performed a factor analysis on the Tennessee Self-Concept Scale on a college sample. Twenty interpretable factors emerged, of which some seemed much more characteristic of the college sample than the general population, but the results did lend support to the validity of the test.

Vincent (1967) used factor analytic and correlational procedures to examine the relationships among variables selected from the California Psychological Inventory, the Security-Insecurity Inventory, the Sixteen Personality Factor Questionnaire and the Tennessee Self-Concept Scale in attempting to establish an empirical basis for commonly used constructs in personality, and specifically, self-concept research.

Armstrong, Hambacker, and Overly (1962) used alcoholics, schizophrenics and normals to validate the Who Are You Test as a self-concept measure. The results generally supported the validity of the test.

Grossack (1960) describes the construction of the Who Am I Test for measuring the self, along with scoring guidelines. The instrument is considered to be sensitive to the present condition of the respondent and is thought to be of value in studies attempting to assess psychological change.

McPhail (1972) found moderate associations between Ss and researchers judgements of the consensuality of subject's responses to the question "Who Am I" for a random sample of fifty subjects' self statements. McPhail also looked at ordinal scale patterns for subjects' consensus over a number of the self statements.

Bennett (1966) looked at measurements on 27 graphic traits purported to be clues concerning the personality of the drawer from figure drawings by 213 6th graders. Some of the traits found were objectively measured, and it was concluded that in combination they would provide information about self-concept.

Bodwin and Bruck (1960) report the construction and validation of the Draw-A-Person Test. The test was given to 60 Ss who were also independently rated for self-concept by a judge after a psychiatric interview. Evidence suggested the Draw-A-Person Test as a valid measure of self-concept.

Bennett (1964) developed two forms of a Q-sort for 3rd graders to be administered in groups or to individuals.

Coleman (1969) discussed aspects of the Negative Self-Concept Instrument which is designed for use with elementary school children. It was reported to be successful in identifying certain negative self-concepts. The usefulness of the Where Are You Game as a measure of 3rd grader's self-concept is discussed by Engle and Raine (1963).

They concluded that this instrument is a reasonably sensitive instrument for various aspects of young children's self-concept. Another self-concept measure for elementary school children was developed by Lentz (1969). She found a highly significant difference between children rated as having "very good" self-concepts and those rated as having "very poor" self-concepts. Piers and Harris (1964) developed a 140-item Self-Concept Scale from Jersild's collection of children's statements about what they liked and disliked about themselves and administered it to 3rd, 6th, and 10th grade classes. Internal consistency and test-retest reliability of coefficients were judged satisfactory enough to continue the refinement of the instrument through item analysis. Gill & D'Oyley (1970) reported on a self-concept scale to measure the self-concepts of high school students in an academic setting. Information is given concerning reliability and validity. It was suggested that the scale was potentially valuable in the prediction of academic achievement.

Further measurement information may be gained in a doctoral dissertation by Dickstein (1972), who looks at the development of self in a theoretical paper, and also looks at measurement problems.

The above discussion has centered around some the better known instruments for measuring self-concept and self-esteem, along with some recent contributions to their evaluation.

The next sections will deal with research from 1959-July, 1973 on self-concept and self-esteem in the areas of social determinants of self-esteem, achievement and self-esteem, and self-esteem and attraction.

Social Determinants and Conditioning Aspects of Self-Esteem

Areas such as the influence of opinions of others on one's self attitudes, effect of positive and negative feedback on self-attitudes, and conditioning experiments involving self-esteem will be looked at.

In terms of parental influence on self-esteem Medinnus (1965) found that for college students high self-acceptance was related to perceiving parents as more loving and less rejecting than those with low self-acceptance. Samuels (1970) looked specifically at the relationship between self-esteem of mothers, child rearing attitudes, and self-concepts of their children. High self-esteem mothers reflected more warmth, consistency, praise, were less punitive and had children with generally higher self-concepts. For kindergarten children, Schwartz (1967) found that children with high self-concepts had mothers who were more affectionate, understanding and accepting than mothers of low self-concept children. In accordance with these results, Searles (1964) reported that high self-concept in college Ss was related to positively perceived home emotional climate. Luck (1970) described low self-esteem individuals as reporting less feelings of admiration, closeness, and love.

Using a sample of 9th graders, Richardson (1965) concluded that student self-concept is formed to a great extent by the teacher's mirror image of the student. Grierson (1961) used 9th graders as Ss and examined their self-concept. Self-concept scores were found to be normally distributed, and generally related to how Ss thought others viewed them.

Haas and Maeher (1965) used 8th grade students to look at the effect of approval and disapproval for a physical task. Effects were

exhibited on self-ratings over 6 weeks. In a second experiment, two doses of approval treatment resulted in longer lasting effects. Ludwig and Maeher (1967) and Maeher, Mensing, and Nafzger (1962) found similar results. Videbeck (1960) discussed changes in self ratings due to approval and disapproval supporting the view that self conceptions are learned, and that the evaluative reactions of others are important in the learning process. Weinberg (1960) found feelings about the body to be related to feelings about the self. Zion (1965) reported a significant relationship between self description and body description, ideal self and ideal body, self description/ideal discrepancy and body description/ideal discrepancy.

A study on deprivation effects by Hewitt and Rule (1968) showed that a 40 hour sensory deprivation session resulted in a greater increase in ratings of the self and acceptance of self after a communication designed to induce positive self-attitude change than did a nondeprivation condition.

Schultz (1966) found the self-perception of 4th-12th grade boys to be related to the perceptions that peers had of them. Spicola (1961) did not find a significant relationship between self-concept and sociometric status for 6th grade boys however. Trickett (1969) speculated that changes in self-concepts of primary grade children may well be due in part, to cues which the child received from referents such as school peers and teachers. Supporting the idea of a close relationship between self-concept and referents was VanEvara (1967) who found a very high relationship between self-esteem and sociometric standing.

Sherwood (1965) showed changes in self-identity to be a function of subjective public identity which, in turn, was a function of objective public identity. Examining an aged population, Davis (1962) found individuals to express more positive self-concepts among those subjects who were considered preferred as opposed to those non-preferred persons.

A number of studies have been interested in the persuasability of high and low self-esteem people. This is of importance since these results should provide general guidelines in viewing the influence of self-attitudes as reinforcers in conditioning and possibly suggest aspects important to interpersonal attraction.

Backman, Secord, and Price (1963) showed that college students resisted changing their perceptions of self-ascribed traits which they perceived as having a high consensus of opinion among significant others, as opposed to those having a low consensus after they had received a false personality assessment. Also, looking at the effects on influencibility, Cutick (1962) found that Ss were more influenced by a successful than by an unsuccessful person. An interesting finding in addition to this was that low self-esteem Ss did not identify more closely with a successful person than did high self-esteem subjects. It was concluded that the study supported Lecky's theory of self consistency.

A study by Dabbs (1964) showed that high self-esteem Ss were more influenced by draftees portrayed as active "copers", and low self-esteem Ss were more influenced by a "non-coper" of military life. Influence was measured by assessment of Ss attitudes toward the military. All subjects, however, did evaluate the "non-coper"

unfavorably. Whether the draftees statements were optimistic or pessimistic had no effect. In a similar study Leventhal and Perloe (1962) had Ss listen to two persuasive appeals by communicators who had been drafted into the army. One of these was positive and the other negative. The Ss also received information concerning personality ratings of the communicators. In terms of change in attitudes towards the Army, high self-esteem Ss were influenced more by positive than negative communications, whereas low self-esteem individuals showed the opposite pattern. The results held only for Ss who received communications from sources with dissimilar personality characteristics. The results were explained by suggestions from Cohen (1959) that high self-esteem individuals are characterized by avoidance of negative information, and low self-esteem individuals are characterized by orienting towards sensitizing of negative information (See also Boylan, 1972). In partial support of this finding is Silverman (1964) who found high self-esteem individuals to be generally less responsive to stimuli which devalue the self than those that are self enhancing. The opposite effect was shown for low self-esteem Ss.

Vaughan (1965) showed that self-conceptions of Ss were related to responses of others in an interactive situation, and influenced the behavior of an individual.

Stotland and Hilmer (1962) indicated that subjects who identified with a model on one trait tended to identify on a second perceived trait. This tendency was most noticeable for low self-esteem and low defensive subjects.

Looking more directly at the area of influencibility and specific self-esteem levels, Wilson & Benner (1971) found that males of high self-esteem chose a high ranking other for comparison in a public ability evaluation situation, while low self-esteem Ss chose a lower person in ability. These effects were not significant for females. The explanation was that the ability task had to do with leadership, which was of much less interest and importance to females.

An important aspect to influencibility is that of receptiveness, or lack of receptiveness, that being defensiveness. As mentioned previously, Silverman (1964) showed a difference in responsiveness between high and low self-esteem individuals to favorable and unfavorable information about the self.

Lomont (1961) reports negative evidence for Roger's self theory. Lomont found that Ss did not repress experiences that were inconsistent with their self-concept. Support for Roger's theory comes from Suinn, Osborne, and Winfree (1962) who found accuracy of recall of self-related personality items to be better the more consistent the items were with the self-concept. Thayer (1965) found that subjects reported seeing ambiguous stimuli associated with self-confirming information, more often and more rapidly than self-image disconfirming associated stimuli.

In general agreement with Silverman (1964), Cohen (1959) and Leventhal and Perloe (1962) is Costantino (1970). Looking at social desirability and defensive behavior, Cosentino found high scores on social desirability to engage in defensive behavior seemingly to bolster fragile self-esteem. Schneider (1969) found failure Ss to be more self-enhancing in a feedback condition than success Ss.

This, Schneider explained, supported the hypothesis that failure experiences motivate subjects to seek approval, while success experiences motivate individuals to avoid disapproval. Schneider also cited Cohen (1959) for support in that Cohen feels that high self-esteem individuals tend to repudiate the depersonalize a failure situation to save face. Schneider reported some of the failure Ss reacting in this way. Also, Schneider's high self-presentation (high self-esteem) Ss showed a high correlation (.92) between Marlowe-Crown Social Desirability scores and self-presentation. For the low self-presentation Ss the correlation was low (.04). This provides more support for the defensiveness characteristic of high self-esteem individuals, when we compare it to the result of Cosentino (1970) in suggesting the relationship between high social desirability scores and defensiveness.

Of additional interest to the reception of general approval-disapproval from others, which has been discussed above, is the effect of specific positive and negative feedback on individuals.

Bashaw (1962) looked at the effects of positive and negative test scores on the California Test of Mental Maturity on self-esteem. Self-esteem changed in a positive direction for those receiving high scores, and in a negative direction for low scores. In a similar fashion, Cohen (1961) found experimentally manipulated success to lead to increases in self-evaluation, and failure to lead to decreases in self-evaluation. Coopersmith (1959) reported with 10-12 year olds that Ss experiencing success were shown to have higher self-evaluations than those with fewer success experiences. In addition, four groups

of 12 Ss each representing four patterns of extreme standing on self-evaluation and behavioral expression, as measured on the Self Esteem Inventory and Behavior Rating Form respectively, were found to differ significantly in achievement, sociometric status, ideal self, and achievement motivation. It was concluded that they represented distinct types of self-esteem.

Boylan (1972) found no support for the hypothesis that low self-esteem Ss performance is worse than high self-esteem Ss after negative evaluation of their intellectual abilities. Support was also found through scores on the Repression-Sensitization Scale for low self-esteem Ss as sensitizers and high self-esteem Ss as repressors.

In viewing success, self-concept, and locus of control of reinforcement, Stern (1973) found that success feedback on a Digit Symbol Substitution task resulted in greatest improvement for low self-concept externalizers, followed by low-internalizers, high externalizers and high internalizers, with all groups being significantly different. In terms of negative feedback, significant decrements, with all groups significantly different from each other were as follows from greatest to least decrement: high externalizers, and low internalizers. Also using a Digit Symbol Substitution Task was Fisher, Hershberger, & Winer (1971) who used verbal reinforcement. It was found that negative reinforcement produced greater performance increments than did positive reinforcement or non evaluative reinforcement. Low self-esteem Ss improved more with criticism than did highs. It was thought that this negative arousal enhanced performance in this relatively simple task using a practiced motor behavior. Evidence again seems to suggest low

self-esteem people as sensitizers (See also Boylan, 1972). Finally, Roberts (1972) found self-esteem to vary positively as a function of positive or negative feedback in a job interview situation.

It is also of interest and basic to the present paper, to gain information on the conditionability of high and low self-esteem individuals, specifically in reference to positive and negative self-referent stimuli to assess the implicit and explicit capabilities of self-attitudes as reinforcers.

Riddle (1968) found self-esteem to increase as a result of contingency reinforcement for a positive self-referring verbal response from Ss in describing themselves. A similar result was found by Stein (1968) who showed that Ss reinforced for increasing their ratings of positive self phrases showed more learning effects than randomly reinforced Ss. These learned changes only generalized partially to self-esteem measures however. Braden (1970) found that self descriptions were significantly influenced by rewards and punishments which were linked in Ss minds to being high or low in insight. High esteem Ss placed more importance on success in the verbal conditioning task than low self-esteem Ss, but it was found that high self-esteem Ss who received few rewards discounted success on the task. Evidence also suggests that low self-esteem Ss are not characterized by being defensive in a threatening situation. Low self-esteem Ss were found to condition more easily, although not significantly so than high self-esteem Ss. The fact that the highs with few rewards discounted the task suggests again the hypothesis of Cohen (1959) in that high self-esteem persons may tend to repudiate a source responsible for failure,

or in this case at least lack of success. Although self-descriptions were significantly influenced by rewards and punishments, the long term effects of raising self-esteem by verbal conditioning were suggested to still be in need of further study.

In another study using verbal conditioning, Bailey (1972) was able to successfully socially reinforce Ss for positive self-attitudes. The generalization effects were studied through peer evaluations, and leaders' ratings of Ss' self-regard, acceptance of others, and effective participation in Group Process classes that all Ss were in. Generalization effects were shown to be minimal. Also using verbal reinforcement was Samples (1972) using 6th graders, along with verbal negative feedback and monetary reinforcement. All groups self-concept increased, though change was uniform across order, reinforcement and sex categories and all groups showed greater changes in learning than a control group during a reinforcement or pre-trial session. Non-reinforced trials resulted in a decrement in learning for the monetary and verbal reinforcement groups, along with increments for the control and especially the verbal negative feedback groups.

Fish, (1972) presented high, medium, and low self-esteem individuals with 2 or 30 presentations of the social reinforcer "good" on a fixed interval schedule in an interview situation under ego or non-ego involving instructions. "Good" was then tested in a verbal conditioning task on a 100% fixed ratio reinforcement schedule. Higher conditioning in ego than non-ego involving situations was found. A three way interaction occurred where in the ego involving conditions high self-esteem Ss were unaffected by the prior availability level of

the social reinforcer (2 or 30), lows in this case conditioned better after low availability, and mediums after high availability. In the non-ego involving groups, high and low self-esteem Ss conditioned best after high availability and mediums best after low availability. Fish offered no definite explanation for the results from present self-esteem or social reinforcer theories, but states that Cohen's (1959) formulation accounted for more data than any other position.

In a clinical setting, Allen (1971) found self-concepts to be enhanced by cognitive structuring and verbal reinforcement of positive self-referent statements in a group therapy session. Ralph (1973) also examined the effects of reinforcing positive statements about the self in a group setting. Self-esteem rose significantly from Ss undergoing the experimental treatment. Crowley (1970) exhibited successful conditioning of both positive and negative self-references in a low-structured counseling type interview. David (1972) reported that the number of post conditioning to pre-conditioning self-accepting statements increased on the basis of positive reinforcement for self-accepting statements as compared to control Ss.

A report by Reitz, Robinson and Dudley (1969) focused on the problem of having Ss learn a discrimination in a discrimination learning task developed by Golightly and Byrne (1964). Using Dymond's (1954) self-attitudes Reitz et. al. looked at the effect of extremely and moderately endorsed self-attitude reinforcers on performance in a discrimination learning task with high self-esteem Ss. There were three reinforcement groups; high, moderate, and neutral. High Ss were reinforced with items they had endorsed with an eight or nine (positive)

reinforcement) and with a one or two (negative reinforcement). For the moderate condition reinforcements were items endorsed with a six or seven (positive) versus three or four (negative). All positive reinforcements were with desirable self--attitudes. The neutral group was reinforced with statements which were about the self, but were neutral in that they were objective, factual, and non-evaluative. Extremely endorsed self-attitude statements produced better performance than moderately endorsed attitude statements. A second study, using low-self-esteem Ss was carried out to examine the problem of similarity-dissimilarity in reinforcement of low self-esteem Ss. Positive reinforcement with positive self-attitudes, positive reinforcement with negative, negative reinforcement with positive and negative reinforcement with negative were the reinforcement contingencies used. The aim was to test the generality of the similarity position of Byrne and his associates which states that similarity is of primary importance in determining reinforcement effects. Only the correct or incorrect responses were reinforced in each group, not both. Only the group positively reinforced with positive self-attitudes acquired the discrimination. Since only the one group acquired, similarity as sole determinant of the reinforcement effects was ruled out. Due to extreme variability in the data, it was thought that another variable was unintentionally manipulated; that being social desirability. Learning was also exhibited in the correct and incorrect direction. This was explained by saying that emotional distress, defenses, conscious manipulation, or other personality patterns may have affected the reinforcing quality of negative self-attitudes. It may be that

subjects were merely responding to the positive statement or lack of a negative statement as a reinforcer regardless of it being a correct or incorrect response.

Golightly and Byrne (1964) showed the strong effects of traditional reinforcement (right--wrong). The fact that a discrimination learning task may confound informational with reinforcement properties may aid in explaining the results. A third study supported the hypothesis that social desirability of the Ss influenced the reinforcement effects of the self-attitudes. This would support the view of Crowne and Marlowe (1964) that social desirability reflects a need for approval. Therefore, presentation of characteristics is more consensually validating or rewarding with a high rather than a low need for approval.

Another interesting point having relevance for reinforcing effects on an individual, is the tendency for individuals, particularly in this case high and low self-esteem individuals, to reinforce themselves.

Williams (1972) found 6th grade high self-esteem Ss to reinforce themselves more than lows for obviously positive self-evaluative responses on the Benton Visual Retention Test. Having prior experience reinforcing another child had no effect however on self-reinforcement, and highs did not differ from lows in terms of total amount of reinforcement to another. Other findings were that highs tended more towards using external criteria for reinforcement than others; and a high positive relationship was observed between total amount of reinforcement of another and total amount of self-reinforcement

($r = .826$, $p = .001$). Berwick (1971) however, found rates of self-reinforcement affected for all groups by feedback for self-reinforcement but unrelated to self acceptance. Reschley (1971) found self-reinforcement and self-esteem to be positively related, but only the moderately difficult task correlated significantly with rates of reinforcement. For college subjects, Fish & Karabenick (1971) reported a correlation between self-esteem and the Rotter I-E scale of $-.28$, ($p = .001$). The result suggests that high self-esteem people are more internally oriented and also suggests a greater potential for self-reinforcement for high self-esteem individuals.

A final note on feedback receptivity can be seen in an experiment where Ss had a choice or no-choice in receiving feedback. Eagley and Whitehead (1972) found that Ss changed their self-ratings of social sensitivity in the direction of positive and negative feedback, and change was less when Ss chose to receive the feedback, than when they did not chose to receive it. High self-esteem Ss changed more towards a favorable message while lows reacted about the same towards a favorable or unfavorable message.

A paper by Waterbor (1972) discusses various theoretical viewpoints concerning the experimental basis of the self. Waterbor mentions three general types of theories, those stressing the continuities of bodily awareness - the regularities of perception of bodily status; those stressing the continuities of social life symbolized by the certain position a person holds in the sphere of human social relationships; and those stressing the continuities of valuing - the persistent beliefs, attitudes, and goals which mark the individual personality.

Waterhor concluded that perhaps the best way to view the foundations of self is to include all emphases in a sort of "tripartite self-concept". In doing this, Waterhor also states that each individual emphasis may be of greater or lesser importance for specific individuals, but that all three aspects need to be taken into account. His paper should be of interest and importance to students and researchers interested in various theoretical approaches to sense of self for a guideline for research aimed at providing empirical data for the theoretical constructs discussed.

The preceding discussion should provide the reader with background concerning the conditionability of high and low self-esteem people, including feedback sources which affect them, and receptiveness and reactions to feedback in terms of defensive behavior. This discussion is meant to establish a base upon which to conceptualize self-attitudes as reinforcers, and suggest patterns which seem to characterize the way in which high and low self-esteem individuals may be expected to react to social reinforcers (social stimuli such as self-attitudes).

Self-Esteem and Achievement

This section will examine the general relationship between self-esteem and achievement. What effect may achievement have on self-esteem and perhaps more importantly, how may self-esteem affect achievement? Achievement has been chosen because of its nature as a specific type of feedback which should have an important effect on self-attitudes, and as an area which knowledge about the effects of self-attitudes as reinforcers may be important in raising self-esteem, and as a result, increasing achievement.

Brookover, Shailer, and Patterson (1964) examined the relationship of self-concept of ability and school achievement for 7th graders. It was found that self-concept of ability was positively related to the perceived evaluations that significant others half of the students. Brookover (1965) looked at information concerning a longitudinal analysis of stability and change in self-concept from 7th to 10th grade in three experiments designed to enhance self-concept of ability of school children. It was concluded that self-concepts of academic ability were derived primarily from perceived evaluation of significant others (especially parents). It was also concluded that self-concept of ability was a limiting factor in academic achievement for most students.

Sproull (1969) found that in general the higher the self-concept of ability in high school, the more likely the subject is to have a higher grade point average in college. Another study, by Schneider (1970) found a positive relationship between self-concept of ability and achievement as well as level of occupational aspiration. Also, a positive relationship was found between achievement and level of occupational aspiration. Subjects were 9th graders.

Bledsoe (1964) found a low to moderate positive correlation between self-concept and both intelligence and achievement. Bowen (1969) found a high correlation between self-attitudes of academic ability and grade point average for 9th graders. Using 4th and 6th graders, Bledsoe (1964) observed low to moderate positive correlations between self-concept and intelligence and achievement. For early and late elementary school children, Bruck and Bodwin (1963) found significant correlations between self-concept and grade point average.

A high relationship between intelligence and self-concept was shown for high school and elementary students by Curtis (1964). Geisler (1969) found a high degree of correlation between self-concept and academic achievement for a group of students who participated in an Upward Bound project. Irvin (1967) reported self-concept to be positively correlated with academic success for college freshmen. For high school students, Lucas (1968) found that self-concept related to and contributed to prediction of grade point average. Paschal (1968) with 7th graders, showed a positive relationship between self-concept and academic achievement, except in mathematics. A similar positive result was found by Pogue (1965) with a sample of 4th-6th graders for self-concept and IQ. Self-concepts of adolescents were found by Sebastian (1962) to be positively correlated to self-regard and intelligence. Stillwell (1965) found achievement related to student self-concept, but not to global self-concept. The relationship between global and student self-concept was higher in general however, than for that between global and more removed specific self-concepts. Once again academic achievement was, in general, found by White (1964) to be in harmony with concept of self. It was also concluded that academic achievement was hindered by the lack of social adjustment even when self-concept appeared high. Achievement-aspiration and self-image exhibited a significant relationship as reported by Thomas (1966). For 4th graders, Zupan (1965) found a significant correlation between self-concept and achievement, but only for boys. Another partial relationship was found by Cotter and Palmer (1970) in showing a significant positive relationship for girls between sociometric status, visibility and self-concept to academic performance. The relationship for boys was not significant. Subjects were 4th-6th graders.

Butcher (1968) reported a positive non-significant relationship between achievement and self-concept in elementary school children. A closer relationship was found between self-concept and intelligence. A greater self-ideal congruence in 5th grade girls was related to higher IQ score and academic achievement, as reported by Lamb (1963). No such significant relationship was found for 5th grade boys. For 6th graders, significant positive correlations were obtained by Spurgeon and Williams (1968) between self-concept measures and conception of school, social status at school, emotional adjustment, mental ability, and reading achievement.

Webster (1965), looking at black adolescents, found that the mother's earlier academic supportive behavior was related to self-concept scores as adolescents, vocational (boys only) and educational aspirations, perceptions of future potential (boys only), and grade point average.

Peppin (1963) found that the parent-child relationship is related both to the ability of a child to achieve his potential and to his self-concept. Williams and Spurgeon (1968) obtained positive correlations between self-concept and school concept, social esteem, emotional adjustment, mental ability, reading achievement, and mathematical achievement.

Roberts (1962) found that underachievement in school for high and low achieving students, was related to a child's feelings about himself and his environment.

Looking at specific levels of ability, Anastasiow (1964) found gifted children achieving below their expected level to have had

lower self-concepts than those working at their expected level. More generally, Dyson (1967) found that high achievers did have higher academic self-concepts than lower achievers. Underachievers, as compared to achievers see themselves as less adequate and less acceptable as reported by Combs (1964). High achievers exhibited a higher general and student self-concept than low achievers in a study by Farls (1967). Examining high school students, Find (1962) found a relationship between adequacy of self-concept and academic achievement, especially for boys. Underachievers were found by Lumpkin (1959) to have negative perceptions of self while overachievers were significantly more positive toward self, and were viewed more positively by teachers. Shaw, Edson, and Bell (1960) reported that achievers had higher self-concepts than underachievers. A similar result was reported by Reiss (1966), but as characterizes many of the above results he made no conclusions as to cause and effect. Specifically, he found bright achievers to have more positive self and ideal-self concepts than underachievers. It was not known whether more positive ideal self-concepts produce superior academic achievement or was a product of it. The study by Anastasiow (1964) suggested that not only can success and achievement result in higher self-concept, as suggested by the above results and data reported in the section on social determinants, but that self-concept may itself help determine levels of achievement. A number of other studies will now be reported to elaborate on this relationship.

Binder (1966) used a sample of rural high school 9th and 12th graders in looking at the relationship between self-expectation, self-

concept, and academic achievement. It was concluded that self-expectation and self-concept showed great potential as contributors to the explanation of variation in academic achievement. Dowd (1969) examined first graders and concluded that self-concept is a predictor for some children's achievement and an antecedent for all children's achievement in terms of reading achievement. On the other hand, Dukes (1965) failed to find a significant correlation for self-concept and reading achievement for 5th graders across four socioeconomic levels. Wattenberg and Clifford (1964) found measures of self-concept and ego strength taken at kindergarten to be predictive of reading achievement 2½ years later. The association between these measures and intelligence tests was very low however. Clifford and Wattenberg (1966) looked at intelligence, self-concept, ego strength and reading ability. They concluded that measures of self-concept at kindergarten proved to be more predictive in general of reading achievement 2½ years later than a measure of mental ability. A dissertation by Gay (1966) with black junior high school students reported that self-concept scores were found to be more of a motivational factor in academic achievement than intelligence. Lamy (1963) studied first grader's perceptions of themselves and their world and found that a child's perceptions makes as good a predictor of reading achievement as do intelligence scores. Shaw and Alves (1963) observed a direct association between negative self-attitudes and academic underachievement for bright 11th and 12th graders. Shaw, and Bell (1960) exhibited a similar relationship. In general agreement with the above findings was Bailey (1971) who found support for the idea that self-concept can restrict or enhance a person's capacity to fulfill his

potential. Self-concept was concluded as playing a crucial role in academic success. It was also found that high achieving-low ability individuals viewed their ability significantly higher than low achieving-low ability individuals. Moffett (1962) looked at 7th graders and reported that if a child has an unfavorable perception of himself, it is likely that this will adversely affect reading achievement. It was also concluded that a child who does not achieve in reading may, as a direct consequence, develop an unfavorable perception of himself. Padelford (1970) also found reading achievement to be positively correlated with self-concept.

Examining 4th-7th graders, attending a remedial reading clinic, Seay (1961) found that social, personal and total self-concept levels did show a significant positive relationship with levels of vocabulary, comprehension and total reading skills.

The majority of results have shown a positive relationship between self-concept variables and achievement. Some studies have shown negative results, however. Fennimore (1966) found little relationship between self-concept and a number of school related variables. Also with college students, Jervis (1959) found no relationship between self-concept and predicted or actual grades. Kempf (1965) concluded with 6th graders that self-concept and ideal self-concept discrepancy scores were unrelated to any variable taken to be a measure of academic success. Levinson (1964) found that the hypothesis that certain personality configurations including those of the self ought to be most evident for underachievers, less for average achievers, and least for high achievers was not conformed. Mulliken (1966) observed that

overachievers had a poorer self-concept of their ability to learn than either achievers or underachievers. Nemeroff (1965) reported that self-attitudes in general were not closely related to either intelligence or achievement. For reading achievement, Nicholson (1965) found no relationship to self-concept. Using high school seniors, Peters (1968) found no relationship between self-concept and over-under-achievement as measured by discrepancies between predicted grade point average and actual achievement for high school seniors. In an experiment to improve reading achievement by fostering more positive self-concept in 4th graders, Prows (1968) was able to increase positive self-concept, but no effect on reading improvement was apparent. Levy (1972) also found no positive relationship to exist between change in self-concept and reading improvement.

Self-Esteem and Interpersonal Attraction

Perhaps one of the most interesting and disputed areas of interpersonal attraction and self-esteem is the controversy between consistency and esteem theories. The main assertion of self-consistency theory is that the actions, attitudes, and receptivity of information by one individual from another is affected very strongly by a tendency to establish and preserve a consistent cognitive state with respect to his evaluation of himself (Jones, 1972). Secord and Backman (1961, 1964, 1965) define a state of self-consistency or congruency to exist "when his own and others behavior imply definitions of self congruency with relevant aspects of the self-concept (1961, p. 23)."

Specifically, in regards to interpersonal attraction, Byrne (1971) and his associates have developed a reinforcement model of attraction, which is primarily based on consistency by virtue of similarity being reinforcing in that it is consensually validating. A general prediction from consistency theories would be that high self-evaluators will respond more favorably to approval than disapproval and low self-evaluators to disapproval than approval (Jones, 1972).

Jones (1972) states that in terms of self esteem theories, "the individual has a need to enhance his self-evaluation and to increase, maintain or confirm his own feelings of personal satisfaction, worth, and effectiveness (1972, p. 186). Also, it is assumed that persons high in self-esteem are relatively more satisfied regarding this need than low self-esteem persons. A general prediction from the self-esteem position would then be that low self-esteem individuals should respond more favorably to positive evaluations from others, and more unfavorably to negative evaluations (Dittes, 1959). Jones (1972) provides a review of pertinent findings concerning esteem and consistency theories with respect to interpersonal evaluations. His major findings will be summarized along with a number of additional studies bearing on this area of research. Jones concludes that the majority of the data supports esteem theories, and he provides explanations for this. The resulting general hypothesis is that "the anticipation of making a personal decision or of self-exposure will increase the tendency of the individual to make apparently self-consistent responses in his relations with others (Jones, 1972, p. 191)." The general reasoning in viewing some self-consistent responses is that

others will forfeit immediate gratifications in terms of self-esteem in anticipation of more self-enhancing and less derogating future experiences. Accenting inconsistent and inaccurate evaluations towards oneself might have hazardous consequences in the future. On the basis of empirical data, Jones concludes that "self-consistent behavior may result from the future implications of evaluations for esteem-enhancement (1972 , p. 192)". The important aspect was explained to be expectancies one has concerning events which could reveal one's true worth. A second, "personalism" explanation states that people prefer self-consistent evaluations from those they feel like them. A final explanation states that where an S is an observer of a situation, or not personally involved, the need of making sense out of the social world he views promotes self-consistency. Where one is evaluated, his esteem and worth is involved and the S can be satisfied or frustrated, depending on others' evaluations of him, and his own evaluation of himself. The data generally supports the explanations of Jones.

Kimble and Helmreich (1972) performed a study where high, moderate, and low self-esteem Ss were exposed to a disagreeer where they would either meet the person (contact) or not meet the person (no-contact). Results showed that high self-esteem Ss liked the disagreeer more in the contact situation. The reverse was true in low self-esteem Ss. It was concluded that high self-esteem Ss have a high need for social approval and seek to obtain it through consistent evaluation from others. The low self-esteem Ss seem to expect a consistent evaluation from others, that being negative and evaluate accordingly. They

perhaps feel that they have little to gain. The first explanation of Jones could well account for the results in the contact situation. For highs, they would most likely expect positive evaluations from another, where lows would expect negative evaluations as in past experiences. In keeping with expected outcomes, they make their evaluations accordingly. In the no-contact situation, highs have nothing to gain and will make no self-presentation, and esteem involvement is minimal. The person is dissimilar, so they are more negative. Lows may see someone dissimilar as perhaps of higher self-esteem with a more positive personality, and are more favorable to him.

A number of studies have dealt with providing Ss with another person who is similar or dissimilar to the Ss in terms of attitudes or personality characteristics, and then have examined attraction.

Griffitt (1966) found attraction to be significantly related to the degree of similarity (.33 or 1.00) of self-concept on the basis of responses to Worchel's Self Activity inventory. In another study, Griffitt (1969) looked at the proportion of similarity of ideal-self to attraction, and proportion of similarity of self concept to attraction. The results indicated that attraction was influenced by both similarity of self to self and by similarity of self to ideal-self. Griffitt (1967) looked at both aspects simultaneously. He determined a total self and ideal-self similarity for four conditions with the following makeup; .20 similarity to self and .40 to ideal; .80 to self and .40 to ideal; .40 to self and .20 to ideal; and .40

to self and .80 to ideal. A total proportion of positive reinforcement was determined which was .40, .86, .40, and .88 respectively. It was found that the obtained attraction responses closely matched those predicted by the Byrne-Nelson linear function which predicts attraction from the proportion of positive reinforcements to total number of reinforcements.

Guthwin (1970) proposed that if self-acceptance is derived primarily from the reflected appraisal of others as stated by self-theory, it should also reflect the individual's expectations about his reception in social situations, which in turn should influence the acceptance or attraction shown towards others. High, moderate, and low self-esteem groups were chosen and given information about four same-sex students. The information was 12 self-attitude items for each stranger, purportedly having been actually selected by the stranger as the items best describing him or her. The proportion of similarity manipulated was either .00, .33, .66, or 1.00 to the Ss on the measure of self-esteem. It was found that the proportion of similar self-attitudes influenced both attraction and expectation of attraction when Ss were asked how much attraction would be shown towards them. Self-esteem had no effect, thus disconfirming the hypothesis concerning expectation of reception in a social situation as a function of self-esteem.

Kipnis (1961) investigated the effects of interpersonal perception of self-evaluation. It was found that individuals perceived themselves to be more like friends than others they liked less well. Ss were found to change their self-evaluations over time so as to be more like friends to whom they were attracted. Ss who perceived negative traits

in friends has unstable friendships. Finally, Ss perceiving friends as unlike themselves changed their self-evaluations more than those with friends perceived as like themselves. Painter (1968) obtained data showing a relationship between perceived similarity (perceived discrepancy of the other to self and perceived discrepancy of the other to the ideal self) when correlated in this study with a measure of social rejection. Hendrick and Page (1970) observed that moderate self-esteem Ss were more favorable to dissimilar persons than High and low groups, which tended to resemble each other. The high self-esteem group was somewhat more extreme in positive and negative liking, however. Simon and Bernstein (1971) looked at chronic and manipulated self-esteem. It was found that the perceived similarity of character traits positively affected attraction. High self-esteem manipulated Ss formed more positive impressions than lows. For chronic self-esteem, there was no effect on attraction scores or indicating a desire to interact with the other person. There was also a tendency ($p = .10$) for more extreme attraction ratings with low chronic self-esteem Ss than high.

Simon (1971), with a sample of 6th graders, found that high self-esteem Ss were more likely to believe people whom they liked reciprocated the positive feelings than low self-esteem Ss. Looking at social comparison, Wilson & Benner (1971) found that high self-esteem males chose a high ranking other for comparison in a public ability evaluation situation, while low self-esteem Ss chose a lower person in ability. There is support for Jones (1972) in terms of a result which suggests self-consistency. In the study by Wilson, the people's decision has consequences for later evaluation, so they appear careful in aligning

themselves with individuals of what they seem to perceive as their approximate level. The data reported just previous to the Wilson study also generally supports the interpretations of Jones as exhibiting consistency effects in non-evaluative studies, or studies where comparison is made with another, or one responds by evaluating another person, but the evaluation has no reflection back on oneself. Concluding the study of Wilson, it was suggested that the effects were not present for females because the ability task concerned leadership which was explained by the author as being shown to be of much less importance to females. They often chose other than the top ranked person.

Richmond, Mason, and Padgett (1972) observed a positive relationship between viewing the self positively and viewing others positively. Berman and Brickman (1971), in a study on standards for attribution of liking, found that low self-esteem Ss required more evidence before being willing to attribute liking to another than high self-esteem Ss. There was no difference in amount of liking for self-esteem conditions, however.

Walster (1965) found in a study involving romantic liking that women, whose self-esteem had been lowered, liked a male confederate (handsome male who showed interest in a date) more than did women whose self-esteem had been raised.

Beloff and Beloff (1959) looked at ratings of Ss on the attractiveness of a composite picture of themselves and a stranger seen in a stereoscope. This was compared to control ratings of a composite

picture of two strangers. Evidence for favorableness of unconscious self-judgements was found in that Ss rated the self-stranger composite as more attractive than the stranger-stranger composite.

Baron (1971) examined self-esteem manipulated by favorable or unfavorable information about oneself on evaluations of others. Control Ss received no information. Low manipulated self-esteem Ss responded more favorably (not significantly) when their evaluations of another would not be seen by him and would be reciprocated than the same situations when the evaluation would unilateral. The same trend was seen for high self-esteem Ss. Highs and moderates responded more favorably in a public (other would not see his evaluation of the other) than private (other would not see his evaluation of the other) condition, and also more favorably in the reciprocal than unilateral case within the public condition. These results generally agree with those of Kimble and Helmreich (1972). A study by Jackson (1971) also looked at manipulated self-esteem and attraction. Self-esteem was manipulated by bogus personality evaluations. Attraction was examined towards a female confederate who was either warm and friendly in accepting a date, or unfriendly in turning down the date. There were no self-esteem effects. On the average the Ss liked the friendly more than the unfriendly confederate. Dittes (1959) obtained results indicating that persons made to feel well accepted in a group found the group more attractive than did those who were made to feel poorly accepted. The difference was significantly greater for low self-esteem Ss. Neuringer and Wandke (1966) found that when high self-concept Ss were confronted with disruptive information about the other member of a dyad, they

changed their attitude toward that person significantly more than did low self-concept Ss. In addition, females were found to shift more than males.

Jacobs, Bersheid, and Walster (1971) showed that male college Ss whose self-esteem was raised by bogus personality reports liked an ambiguous female evaluator of a social skills task more than Ss whose self-esteem had been lowered. No consistent differences were found for rejecting and accepting females, although the direction of the relationship was generally the same.

In a somewhat general finding, Wurster, Bass, and Alcock (1961) found, with a sample of college students, that behavior is directed at maintaining and enhancing ones own esteem in the eyes of esteemed others since the esteemed others are seen as having the ability and power to reward or punish.

Zimbardo and Formica (1963) examined the relationship between self-esteem and social affiliation in a group waiting situation where Ss were lead to believe they would experience a painful shock. Fearful Ss affiliated more than nonfearful Ss, and data suggested a negative relationship between self-esteem and affiliation.

Helmreich, Aronson, and Lefan (1970) revealed that average self-esteem people found the attractiveness of a competent person enhanced if he had a pratfall. High and low self-esteem people both liked a superior person more without a pratfall. A pratfall did not effect the liking of an incompetent stranger. The competent person with or without a pratfall was found to be significantly more attractive than the incompetent person. In a similar study, Mettee and Wilkins (1972)

showed that Ss of superior intellectual ability disliked a superior-ability person significantly more if he committed a pratfall, average persons were reacted to indifferently. In addition, Ss of average ability tended to derogate an average ability person if he committed a pratfall and was berated by a third individual. The same conditions resulted in a slight increase towards a superior-ability individual. Ss generally reacted toward a superior-ability person the same way as average Ss reacted toward an average ability person. The results generally agree with those of Helmreich, et. al.

Worchel and McCormick (1963) reported that Ss with a low self-ideal discrepancy expressed greater derogation of a disagreeing confederate than a moderate or high self-ideal discrepancy S. Also, disagreement was found to result in greater effects on the certainty of one's opinion for high self-ideal discrepancy Ss than for low or moderate self-ideal discrepancy Ss.

Conclusion

In addition to the information which has just been presented, Boshier (1970) has assembled a bibliography of 500 post and crucial pre- 1961 titles under the following headings: theoretical contributions to self-theory, self and achievement, and social desirability variable in measures of self, acceptance of self and discrepancy studies, longitudinal studies of self, perceptions and self, interpersonal relations, persuasibility and self, self and vocational choice, one's self and one's name, body image and self, self and the handicapped, and anxiety and self.

The above discussion has focused on elements of feedback from others, including approval-disapproval, as well as various studies manipulating positive and negative feedback, to show the importance of referents and the feedback they provide on self-esteem. Data was also presented to indicate the general effectiveness of various types of feedback in the conditioning of self-esteem in order to make general statements about certain feedback serving as reinforcers. It remains to be demonstrated however, that self-attitudes serve as reinforcers of a simple instrumental response. If in fact, self-attitudes are reinforcers, it should be possible to reinforce a simple instrumental response. Such an investigation performed with high and low self-esteem individuals should provide an empirical foundation to guide research as to how high and low self-esteem individuals respond to social stimuli such as self-attitudes, which should provide us more information about the specific psychological characteristics of high and low self-esteem people. This is the purpose of the present study, along with the inclusion of procedures to examine aspects of interpersonal attraction regarding high and low self-esteem, and to look at the effect of specific types of evaluative statements and schedule of reinforcement from another person. Of additional interest in this vein is the additional information concerning the relative importance of consistency and esteem approaches to interpersonal attraction.

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APPENDIX B
SELF-ATTITUDE SCALE

SELF ATTITUDE SCALE

Circle the number on each scale for each item as to how much it is like or unlike yourself.

	<u>Like Me</u>	<u>Unlike Me</u>
1. I put on a false front.	1 2 3 4 5 6 7 8 9	
2. I make strong demands on myself.	1 2 3 4 5 6 7 8 9	
3. I often feel humiliated.	1 2 3 4 5 6 7 8 9	
4. I have a feeling of hopelessness.	1 2 3 4 5 6 7 8 9	
5. I have a warm emotional relationship with others.	1 2 3 4 5 6 7 8 9	
6. I have few values and standards of my own.	1 2 3 4 5 6 7 8 9	
7. It is difficult to control my aggression.	1 2 3 4 5 6 7 8 9	
8. I am responsible for my troubles.	1 2 3 4 5 6 7 8 9	
9. I want to give up trying to cope with the world.	1 2 3 4 5 6 7 8 9	
10. I am a responsible person	1 2 3 4 5 6 7 8 9	
11. I can accept most social values and standards.	1 2 3 4 5 6 7 8 9	
12. I tend to be on my guard with people who are somewhat more friendly than I had expected.	1 2 3 4 5 6 7 8 9	
13. Self-control is no problem for me.	1 2 3 4 5 6 7 8 9	
14. I usually like people.	1 2 3 4 5 6 7 8 9	
15. I usually feel driven.	1 2 3 4 5 6 7 8 9	
16. I express my emotions freely.	1 2 3 4 5 6 7 8 9	
17. I feel helpless.	1 2 3 4 5 6 7 8 9	
18. I can usually live comfortably with the people around me.	1 2 3 4 5 6 7 8 9	

	<u>Like Me</u>	<u>Unlike Me</u>
19. My decisions are not my own.	1 2 3 4 5 6 7 8 9	
20. I am a hostile person.	1 2 3 4 5 6 7 8 9	
21. My hardest battles are with myself.	1 2 3 4 5 6 7 8 9	
22. I am disorganized.	1 2 3 4 5 6 7 8 9	
23. I feel apathetic.	1 2 3 4 5 6 7 8 9	
24. I am optimistic	1 2 3 4 5 6 7 8 9	
25. I don't trust my emotions.	1 2 3 4 5 6 7 8 9	
26. I am liked by most people who know me.	1 2 3 4 5 6 7 8 9	
27. I often kick myself for the things I do.	1 2 3 4 5 6 7 8 9	
28. It's pretty tough to be me.	1 2 3 4 5 6 7 8 9	
29. I have the feeling that I am just not facing things.	1 2 3 4 5 6 7 8 9	
30. I can usually make up my mind and stick to it.	1 2 3 4 5 6 7 8 9	
31. I try not to think about my problems.	1 2 3 4 5 6 7 8 9	
32. I am contented.	1 2 3 4 5 6 7 8 9	
33. I am poised.	1 2 3 4 5 6 7 8 9	
34. I am shy.	1 2 3 4 5 6 7 8 9	
35. I am no one. Nothing seems to be me.	1 2 3 4 5 6 7 8 9	
36. I am impulsive.	1 2 3 4 5 6 7 8 9	
37. I am a rational person.	1 2 3 4 5 6 7 8 9	
38. I despise myself.	1 2 3 4 5 6 7 8 9	
39. I am tolerant.	1 2 3 4 5 6 7 8 9	
40. I shrink away from facing a crisis or difficulty.	1 2 3 4 5 6 7 8 9	

	<u>Like Me</u>					<u>Unlike Me</u>				
41. I have an attractive personality.	1	2	3	4	5	6	7	8	9	
42. I just don't respect myself.	1	2	3	4	5	6	7	8	9	
43. I am ambitious.	1	2	3	4	5	6	7	8	9	
44. I am afraid of a full fledged disagreement with a person.	1	2	3	4	5	6	7	8	9	
45. I have initiative.	1	2	3	4	5	6	7	8	9	
46. I take a positive attitude toward myself.	1	2	3	4	5	6	7	8	9	
47. I can't seem to make up my mind one way or another	1	2	3	4	5	6	7	8	9	
48. I am assertive.	1	2	3	4	5	6	7	8	9	
49. I am confused.	1	2	3	4	5	6	7	8	9	
50. I am satisfied with myself.	1	2	3	4	5	6	7	8	9	
51. I am a failure.	1	2	3	4	5	6	7	8	9	
52. I am likeable.	1	2	3	4	5	6	7	8	9	
53. My personality is attractive to the opposite sex.	1	2	3	4	5	6	7	8	9	
54. I have a fear of failing in anything I want to accomplish.	1	2	3	4	5	6	7	8	9	
55. I am relaxed, and nothing really bothers me.	1	2	3	4	5	6	7	8	9	
56. I am a hard worker.	1	2	3	4	5	6	7	8	9	
57. All you have to do is just insist with me and I give in.	1	2	3	4	5	6	7	8	9	
58. I feel emotionally mature.	1	2	3	4	5	6	7	8	9	
59. I am intelligent.	1	2	3	4	5	6	7	8	9	
60. I am self reliant.	1	2	3	4	5	6	7	8	9	
61. I have to protect myself with excuses, with rationalizing.	1	2	3	4	5	6	7	8	9	

	<u>Like Me</u>					<u>Unlike Me</u>			
62. I am different from others.	1	2	3	4	5	6	7	8	9
63. I understand myself.	1	2	3	4	5	6	7	8	9
64. I am a good mixer.	1	2	3	4	5	6	7	8	9
65. I am reliable.	1	2	3	4	5	6	7	8	9
66. I feel adequate.	1	2	3	4	5	6	7	8	9

APPENDIX C
SOCIAL DESIRABILITY SCALE

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

- T F 1. Before voting I thoroughly investigate the qualifications of all the candidates.
- T F 2. I never hesitate to go out of my way to help someone in trouble.
- T F 3. It is sometimes hard for me to go on with my work if I am not encouraged.
- T F 4. I have never intensely disliked anyone.
- T F 5. On occasion I have had doubts about my ability to succeed in life.
- T F 6. I sometimes feel resentful when I don't get my way.
- T F 7. I am always careful about my manner of dress.
- T F 8. My table manners at home are as good as when I eat out in a restaurant.
- T F 9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
- T F 10. On a few occasions, I have given up doing something because I thought too little of my ability.
- T F 11. I like to gossip at times.
- T F 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- T F 13. No matter who I'm talking to, I'm always a good listener.
- T F 14. I can remember "playing sick" to get out of something.
- T F 15. There have been occasions when I took advantage of someone.
- T F 16. I'm always willing to admit it when I make a mistake.
- T F 17. I always try to practice what I preach.
- T F 18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.
- T F 19. I sometimes try to get even, rather than forgive and forget.
- T F 20. When I don't know something I don't at all mind admitting it.

- T F 21. I am always courteous, even to people who are disagreeable.
- T F 22. At times I have really insisted on having things my own way.
- T F 23. There have been occasions when I felt like smashing things.
- T F 34. I would never think of letting someone else be punished for my wrong doings.
- T F 25. I never resent being asked to return a favor.
- T F 26. I have never been irked when people expressed ideas very different from my own.
- T F 27. I never make a long trip without checking the safety of my car.
- T F 28. There have been times when I was quite jealous of the good fortune of others.
- T F 29. I have almost never felt the urge to tell someone off.
- T F 30. I am sometimes irritated by people who ask favors of me.
- T F 31. I have never felt that I was punished without cause.
- T F 32. I sometimes think when people have a misfortune they only got what they deserved.
- T F 33. I have never deliberately said something that hurt someone's feelings.
- T F 34. My sex is _____female: male_____ (check one).

APPENDIX D

SOCIAL AVOIDANCE AND DISTRESS SCALE

PLEASE ANSWER THE FOLLOWING TRUE-FALSE QUESTIONS

- _____ 1. I feel relaxed even in unfamiliar social situations.
- _____ 2. I try to avoid situations which force me to be very sociable.
- _____ 3. It is easy for me to relax when I am with strangers.
- _____ 4. I have no particular desire to avoid people.
- _____ 5. I often find social occasions upsetting.
- _____ 6. I usually feel calm and comfortable at social occasions.
- _____ 7. I am usually at ease when talking to someone of the opposite sex.
- _____ 8. I try to avoid talking to people unless I know them well.
- _____ 9. If the chance comes to meet new people, I often take it.
- _____ 10. I often feel nervous or tense in casual get-togethers in which both sexes are present.
- _____ 11. I am usually nervous with people unless I know them well.
- _____ 12. I usually feel relaxed when I am with a group of people.
- _____ 13. I often want to get away from people.
- _____ 14. I usually feel uncomfortable when I am in a group of people I don't know.
- _____ 15. I usually feel relaxed when I meet someone for the first time.
- _____ 16. Being introduced to people makes me tense and nervous.
- _____ 17. Even though a room is full of strangers, I may enter it anyway.
- _____ 18. I would avoid walking up and joining a large group of people.
- _____ 19. When my superiors want to talk with me, I talk willingly.
- _____ 20. I often feel on edge when I am with a group of people.
- _____ 21. I tend to withdraw from people.
- _____ 22. I don't mind talking to people at parties or social gatherings.

- _____ 23. I am seeldom at ease in a large group of people.
- _____ 24. I often think up excuses in order to avoid social engagements.
- _____ 25. I sometimes take the responsibility for introducing people to each other.
- _____ 26. I try to avoid formal social occasions.
- _____ 27. I usually go to whatever social engagements I have.
- _____ 28. I find it easy to relax with other people.

APPENDIX E
SURVEY OF ATTITUDES

SURVEY OF ATTITUDES

Name _____ Psychology ID Number _____ Date _____
Age _____ Sex _____ Class: Fr. _____ Soph. _____ Jr. _____
Hometown: _____ Phone _____

1. Smoking (check one)

- ☐ In general, I am very much in favor of smoking.
- ☐ In general, I am in favor of smoking.
- ☐ In general, I am mildly in favor of smoking.
- ☐ In general, I am mildly against smoking.
- ☐ In general, I am against smoking.
- ☐ In general, I am very much against smoking.

2. Integration in Public Schools (check one)

- ☐ Racial integration in public schools is a mistake, and I am very much against it.
- ☐ Racial integration in public schools is a mistake, and I am against it.
- ☐ Racial integration in public schools is a mistake, and I am mildly against it.
- ☐ Racial integration in public schools is a good plan, and I am mildly in favor of it.
- ☐ Racial integration in public schools is a good plan and I am in favor of it.
- ☐ Racial integration in public schools is a good plan, and I am very much in favor of it.

3. Birth Control (check one)

- ☐ I am very much in favor of most birth control techniques.
- ☐ I am in favor of most birth control techniques.
- ☐ I am mildly in favor of most birth control techniques.
- ☐ I am mildly opposed to most birth control techniques.
- ☐ I am opposed to most birth control techniques.
- ☐ I am very much opposed to most birth control techniques.

4. Political Parties (check one)

- ☐ I am a strong supporter of the Democratic party.
- ☐ I prefer the Democratic Party.
- ☐ I have a slight preference for the Democratic party.
- ☐ I have a slight preference for the Republican Party.
- ☐ I prefer the Republican Party.
- ☐ I am a strong supporter of the Republican Party.

5. Welfare Legislation (check one)

- ☐ I am very much opposed to increased welfare legislation.
- ☐ I am opposed to increased welfare legislation.
- ☐ I am mildly opposed to increased welfare legislation.
- ☐ I am mildly in favor of increased welfare legislation.
- ☐ I am in favor of increased welfare legislation.
- ☐ I am very much in favor of increased welfare legislation.

6. Dating (check one)

- ☐ I strongly believe that girls should be allowed to date before they are in high school.
- ☐ I believe that girls should be allowed to date before they are in high school.
- ☐ I feel that perhaps girls should be allowed to date before they are in high school.
- ☐ I feel that perhaps girls should not be allowed to date until they are in high school.
- ☐ I believe that girls should not be allowed to date until they are in high school.
- ☐ I strongly believe that girls should not be allowed to date until they are in high school.

7. War (check one)

- ☐ I strongly feel that war is sometimes necessary to solve world problems.
- ☐ I feel that war is sometimes necessary to solve world problems.
- ☐ I feel that perhaps war is sometimes necessary to solve world problems.
- ☐ I feel that perhaps war is never necessary to solve world problems.
- ☐ I feel that war is never necessary to solve world problems.
- ☐ I strongly feel that war is never necessary to solve world problems.

8. Strict Discipline (check one)

- ☐ I am very much against strict disciplining of children.
- ☐ I am against strict disciplining of children.
- ☐ I am mildly against strict disciplining of children.
- ☐ I am mildly in favor of strict disciplining of children.
- ☐ I am in favor of strict disciplining of children.
- ☐ I am very much in favor of strict disciplining of children.

9. Freshmen Having Cars on Campus (check one)

- ☐ I am very much in favor of freshmen being allowed to have cars on campus.
- ☐ I am in favor of freshmen being allowed to have cars on campus.
- ☐ I am in favor of freshmen being allowed to have cars on campus to a slight degree.
- ☐ I am against freshmen being allowed to have cars on campus to a slight degree.
- ☐ I am against freshmen being allowed to have cars on campus.
- ☐ I am very much against freshmen being allowed to have cars on campus.

10. Gardening (check one)

- ☐ I enjoy gardening very much.
- ☐ I enjoy gardening.
- ☐ I enjoy gardening to a slight degree.
- ☐ I dislike gardening to a slight degree.
- ☐ I dislike gardening.
- ☐ I dislike gardening very much.

11. Exhibitions of Modern Art (check one)

- ☐ I dislike looking at exhibitions of modern art very much.
- ☐ I dislike looking at exhibitions of modern art.
- ☐ I dislike looking at exhibitions of modern art to a slight degree.
- ☐ I enjoy looking at exhibitions of modern art to a slight degree.
- ☐ I enjoy looking at exhibitions of modern art.
- ☐ I enjoy looking at exhibitions of modern art very much.

12. Men's Adjustment to Stress (check one)

- ☐ I strongly believe that men adjust to stress better than women.
- ☐ I believe that men adjust to stress better than women.
- ☐ I feel that perhaps men adjust to stress better than women.
- ☐ I feel that perhaps men do not adjust to stress better than women.
- ☐ I believe that men do not adjust to stress better than women.
- ☐ I strongly believe that men do not adjust to stress better than women.

APPENDIX F
INTERPERSONAL JUDGEMENT SCALE

Your Name _____

INTERPERSONAL JUDGEMENT SCALE

1. Intelligence (check one)

- ☐ I believe that this person is very much above average in intelligence.
- ☐ I believe that this person is above average in intelligence.
- ☐ I believe that this person is slightly above average in intelligence.
- ☐ I believe that this person is average in intelligence.
- ☐ I believe that this person is slightly below average in intelligence.
- ☐ I believe that this person is below average in intelligence.
- ☐ I believe that this person is very much below average in intelligence.

2. Knowledge of Current Events (check one)

- ☐ I believe that this person is very much below average in his (her) knowledge of current events.
- ☐ I believe that this person is below average in his (her) knowledge of current events.
- ☐ I believe that this person is slightly below average in his (her) knowledge of current events.
- ☐ I believe that this person is average in his (her) knowledge of current events.
- ☐ I believe that this person is slightly above average in his (her) knowledge of current events.
- ☐ I believe that this person is above average in his (her) knowledge of current events.
- ☐ I believe that this person is very much above average in his (her) knowledge of current events.

3. Morality (check one)

- ☐ This person impresses me as being extremely moral.
- ☐ This person impresses me as being moral.
- ☐ This person impresses me as being moral to a slight degree.
- ☐ This person impresses me as being neither particularly moral or particularly immoral.
- ☐ This person impresses me as being immoral to a slight degree.
- ☐ This person impresses me as being immoral.
- ☐ This person impresses me as being extremely immoral.

4. Adjustment (check one)

- ☐ I believe that this person is extremely maladjusted.
☐ I believe that this person is maladjusted.
☐ I believe that this person is maladjusted to a slight degree.
☐ I believe that this person is neither particularly maladjusted nor particularly well adjusted.
☐ I believe that this person is well adjusted to a slight degree.
☐ I believe that this person is well adjusted.
☐ I believe that this person is extremely well adjusted.

5. Personal Feelings (check one)

- ☐ I feel that I would probably like this person very much.
☐ I feel that I would probably like this person.
☐ I feel that I would probably like this person to a slight degree.
☐ I feel that I would probably neither particularly like nor particularly dislike this person.
☐ I feel that I would probably dislike this person to a slight degree.
☐ I feel that I would probably dislike this person.
☐ I feel that I would probably dislike this person very much.

6. Working Together in an Experiment (check one)

- ☐ I believe that I would very much dislike working with this person in an experiment.
☐ I believe that I would dislike working with this person in an experiment.
☐ I believe that I would dislike working with this person in an experiment to a slight degree.
☐ I believe that I would neither particularly dislike nor particularly enjoy working with this person in an experiment.
☐ I believe that I would enjoy working with this person in an experiment to a slight degree.
☐ I believe that I would enjoy working with this person in an experiment.
☐ I believe that I would very much enjoy working with this person in an experiment.