ALTERNATIVE MODES OF SELF-ENHANCEMENT

By

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Numerous conceptual writings and experimental works dealing with self-concept and self-esteem suggest that under certain conditions individuals have a need to aggrandize and enhance their self-concept, even to the point of denial or distortion of "reality." This is viewed as a normal and valid part of self-evaluation and behavior, though it can reach extreme and unproductive limits in certain personality disorders.

The present investigation was designed to study this notion of self-enhancement as an alternative form of behavior to accurate self-assessment of abilities and opinions as presented in Festinger's theory of social comparison processes. Seventeen hypotheses were tested dealing with alternative responses to feedback about one's performance.

Data were collected on 96 female and 96 male college students from introductory psychology classes at the University of Florida by two teams of experimenters. Independent variable manipulations were: the

nature of the particular characteristic on which subjects were evaluated (opinion or ability), importance of the particular characteristic (high or low importance), credibility of the source of feedback (moderate or low), and nature of the feedback (positive or negative). Response measures included self-esteem, attributions of causality for one's performance, evaluation of the characteristic, evaluation of the source of feedback, and a behavioral social comparison measure.

Results indicated little support for the experimental hypotheses, largely due to the unexpected effect of the feedback variable. One hypothesis on attributions of causality received some support in that the two ability/feedback conditions differed in attribution to luck while the two opinion/feedback conditions did not. The other hypotheses were not supported. However, there were some indications of self-enhancing responses, though in different ways than were predicted. Results suggested that subjects did devalue an important characteristic and credible source after receiving negative feedback. There was some limited evidence for use of alternative modes of enhancement after negative feedback and for opinions. Alternative explanations for the results and implications for future research are discussed.

CHAPTER ONE
INTRODUCTION

Much of human behavior and perceptions centers around making judgments about the world; that is, evaluating persons and relevant stimuli in order to effectively deal with the environment. But individuals not only form judgments of objects and other people, they also go through a process of self-evaluation. As they do for objects and other people, so individuals attach meaning and a sense of worth to themselves. This brings forth an affective reaction and a cognitive core of beliefs about one's worth. Such a process can be very important in human development and interaction, and is related to such topics as achievement motivation, affiliation, interpersonal relations and group processes. In fact, every aspect of our experience--our behavior, perceptions, thoughts and feelings--can be seen as influenced by and as influencing our self-conceptions and evaluations of ourselves.

Festinger's theory of social comparison processes (1954a) includes a series of hypotheses relating to self-evaluation and behaviors designed to complete the self-assessment process. Festinger states that there is a human drive to evaluate one's abilities and opinions, and that we all seek information to assist us in an accurate assessment. Humans have a positive motivation to know their environment and in fact direct much of their behavior to finding out about the world around them. More specifically, we try to find out what we can and cannot do, and whether our opinions are valid. This has important implications

for our development and self-preservation. It becomes urgent to have precise and valid knowledge about our abilities and perceptions. A process of "reality testing" would enable us to assure ourselves that our opinions are correct and our abilities properly appraised, but for many judgments there exists no independent reality test. This is especially true for opinions, and points up an important difference between abilities and opinions that is addressed later. We must compare our abilities and opinions to others' abilities and opinions in order to complete our self-assessment. Festinger (1954b) says that in this way a non-social motivation to know what we can and cannot do leads to social behavior in the form of comparison with others. Nissen (1954) cites comparative support for a universal drive to know, in that animals seek precise information but depend more on their sense organs than do humans for reality testing and accurate assessment. Due to less developed sense organs in humans, the social process becomes very important.

Since the original paper on social comparison processes (1954a) others have expanded Festinger's notions about opinion and ability assessment to include evaluations of emotions (Schachter, 1959) and personality characteristics (Hakmiller, 1966; Wheeler, 1966). The basic assumption underlying these works is that when objective, non-social means are not available as a standard, people compare themselves with others on the salient opinion, ability, emotion or personality characteristic, thus using social rather than physical reality as the basis of their assessment. Building on the further assumption that accuracy is the most salient goal for individuals, Festinger hypothesizes that people compare themselves with a similar individual since the most

information can be obtained from that type of comparison.

There are two objections to Festinger's thesis. First, several researchers have challenged the notion that a similar other will be chosen for comparison. For one thing, similar others do not always provide the most information (Gruder, 1971; Strauss, 1967; Wheeler, Shaver, Jones, Goethals, Cooper, Robinson, Gruder and Butzine, 1969). There are situations when more information can be obtained from comparing oneself to a dissimilar rather than similar comparison other. One example of this is when the individual does not know the range of a particular ability or opinion. The second criticism is more basic--that individuals may not always desire accuracy. A parallel process to accurate self-appraisal operates in the form of self-enhancement. Obviously, there are times when accurate assessment of oneself is important. For example, when about to undertake some task requiring certain skills, it is advantageous to know if one has the necessary ability. Certain short-term and long-term decisions in an individual's life necessitate accurate evaluation of abilities and opinions. But humans also have a desire for self-enhancement; they want to look good in front of others, and furthermore often prefer to look good to themselves. This desire may override the need for accuracy in presentation and evaluation.

Extrapolating from Festinger's framework, there are situations under which individuals might be expected to choose a person who is more negative than themselves, thus making themselves look good in comparison. This would occur in a threatening situation or at a time when self-esteem is more important than accuracy. Hakmiller (1966) found that subjects in a high-threat condition focused more upon dissimilar others than did subjects in the low-threat condition, choosing comparison

others who were more likely to do worse than themselves. He calls this phenomenon defensive social comparison, in that subjects reduced the threat of negative information about themselves by choosing comparison with someone who was worse. Darley and Aronson's (1966) affiliation study showed a similar effect; subjects in a high-fear-uncertainty condition chose to wait with someone who's fear reaction was lower than their own rather than with someone who's fear reaction was similar to their own. Rose (1966) states that a person controls the selection of others and can therefore exercise the power to enhance the self.

Many conceptual writings expound on the process of enhancing the self for the benefit of both others' opinions of an individual and in terms of that individual's self-perceptions and evaluations. In a discussion of reference group phenomena, Hyman and Singer (1968) note that in the process of self-appraisal the individual selects the social comparison standard. The choice of a comparison can maintain, enhance or injure self-regard. Gergen (1971) refers to the emotional component of self-evaluation and states that there is a strong tendency to select cues providing positive confirmation of the self. We undertake perceptual scanning that is biased toward seeing ourselves as we wish to be. Allport (1968) listed ego-enhancement as one aspect of the proprium or self. Wylie (1961) included references to self-enhancement and Sullivan (1953) proposed that the self-system, which is concerned with protecting the individual's self-esteem, is capable of selective inattention. In their theory, Combs and Snygg (1959) speak of the important needs of maintenance and enhancement of the self and how these affect the perceptions of individuals. For Heider (1958), when the personal lots of p and o are compared, self-concept is directly

affected and in fact may be enhanced or undermined as a result of comparison with someone else. We try to preserve a good image and produce a good opinion of ourselves in others by showing our positive side and hiding what is negative. Heider (1944) says that in addition to the tendency to see ourselves and others in certain ways, we have a tendency to keep our ego-level high. Pepitone (1964) hypothesizes a unidirectional pressure toward maintaining or enhancing self-esteem. Crowne and Marlowe (1964) state that people attempt to validate their own self-worth in their defensive efforts to cope with anticipated failure.

Rogers (1951) put forth a series of propositions about the self and its growth. He stated that the organism has one basic tendency and striving to actualize, to maintain and enhance the self. Most of the ways of behaving which the organism adopts are those which are consistent with the concept of the self. Any experience which is inconsistent may be perceived as a threat. A larger number or greater intensity of threat-perceptions leads to more rigid organization of the self-structure to maintain itself. One defense under threat is selective perception or the distortion and omission of data. Rogers also emphasizes the need for positive self-regard. In general, these and other formulations about the self make the point that there is a desire to protect one's ego by perceiving the world and presenting oneself so as to perpetuate a favorable image in the eyes of others and in the mirror on oneself.

Empirical work likewise relates to this notion of self-enhancement. Schlenker (1975b) cites evidence that undergraduates do desire self-enhancement and in fact ignore information known only to themselves when selecting a public image. Jones (1973), in his review of the

self-evaluation literature, finds more support for the incentive position that individuals prefer favorable evaluations than he does for the consistency viewpoint that people most desire consistent information. In Schneider's (1969) study, subjects were given bogus feedback on their performance on a social sensitivity test. Subjects in the failure condition were more self-enhancing in their presentations in that they emphasized positive points about themselves rather than negative points.

There are numerous behaviors that relate to attempts at self-enhancement and the process of ego-maintenance. We consider five such behaviors as they relate to the independent variables under consideration. Modes of self-enhancement include such responses as attributions of causality for one's performance, evaluation of the characteristic on which the individual is evaluated, evaluation of the source of feedback and social comparison choice. Change in self-esteem, the fifth response, is not a self-enhancement tactic, but rather happens when self-enhancement does not occur. Some general discussion of these topics is in order before we turn to the factors influencing self-enhancement.

Responses to Performance Feedback

Self-esteem

Self-esteem can be viewed in terms of evaluative attitudes toward the self; as an attitude of approval or disapproval it indicates the extent to which individuals believe themselves to be capable, worthy and successful (Coopersmith, 1967). Attitudes toward the self are defined in the same way as attitudes toward other objects--as orientations toward or away from some object or event, as predispositions to

respond favorably or unfavorably toward these and related objects and events. And like other attitudes, self-evaluations carry affective loadings and have motivational consequences. Argyle (1969) defines self-esteem as the extent to which a person has favorable attitudes toward the self. In other words, there is a favorable or unfavorable attitude of "I" toward "me." Shaw and Wright's (1967) presentation of attitude scales includes defining characteristics of attitudes that also apply to self-evaluations. Attitudes are based upon evaluative concepts regarding characteristics of the referent object and give rise to motivated behavior. They vary in quality and strength on a positive-neutral-negative continuum. Attitudes are learned, have specific referents and possess varying degrees of interrelatedness to one another. Though they are relatively stable and enduring, they are subject to change. Shaw and Wright present attitude scales for self-acceptance that measure attitude toward the self.

Coopersmith (1967) also points out some dissimilarities between attitudes toward other objects and self-attitudes. Self-esteem differs from other attitudes in that the self is the only person who formulates the abstraction, appreciates its limits and content, and is in a position to define and evaluate its characteristics. In addition, the object under consideration (oneself) is different for each individual.

Because this work includes reference to opinions at a later point in the discussion, it is necessary to give brief mention to the distinction between attitude and opinion in social psychological literature. Shaw and Wright (1967) note that though an opinion is similar to an attitude in that both involve cognitions about the world, it differs from an attitude in that there is no commitment associated with

it. They cite other researchers who state that opinions are verbalizable while attitudes are sometimes "unconscious." Furthermore, opinions are responses while attitudes are response predispositions. Berkowitz (1972) states that opinions have no dynamic or driving properties and are assumptions or judgments that the individual believes to be true. In contrast, attitudes have motivational impact. In general, attitudes have more influence on human behavior and hold more emotional meaning for the individual.

The origins of one's self-image and self-esteem are probably the reactions of others (Argyle, 1969; Symonds, 1951). Charles Cooley (1968) discussed the notion of "social self," and the looking-glass concept, which refers to the fact that the self reflects imagined reactions and appraisals by others. The individual thus interprets judgments of the self held by others. Continuing in this tradition, Mead (1968) offered the proposal that the self is determined by actual reactions of significant others to the self and by the individual's imitation of these reactions. Much empirical work and observation of behavior shows that our evaluations of ourselves are very much affected by the implicit and explicit feedback we get from others about our standing relative to others.

Attributions of Causality

Change in self-esteem is one possible consequence of feedback about one's standing on a particular attribute, but there exist mechanisms to deal with feedback such that self-esteem is not affected. By changing attributions one can alter the degree to which a given performance is seen as a reflection of the self. Heider (1958) went into detail about

the fact that observers are interested not only in what p can do, but whether p's performance is due to either personal characteristics or the environment. In an earlier article (Heider, 1944) he quoted Hoppe's point that not only is success or failure important, but the beloningness of them to the person is crucial. In Heider's system, can expresses ability, which is seen as a stable underlying disposition. But ability may be attributed to person or the environment, in that it refers to power and effective entironmental force. By attributing a performance to either person or environment, one is able to control the presumed locus of causality, which may have strong effects on the judgment of the actor as an individual. And we are prone to alter perceptions of causality so as to protect or enhance self-esteem, by attributing good outcomes to our own characteristics and bad outcomes to external sources. Thus egocentric perceptions reflect the tendency to structure perceptions of causality such that we obtain credit for good actions and avoid blame for bad outcomes. Feather (1968) states that it is likely that there is an asymmetry in attribution of responsibility for outcomes depending upon whether one succeeds or fails. This expectation is based on Heider's balance theory (Feather, 1969).

Evaluation of the Characteristic

Another type of cognitive mechanism is available to a person attempting self-enhancement under the guise of self-evaluation of personal characteristics--that is, one can re-evaluate the characteristic to maximize self-aggrandizement. If one fails at a task or is inferior to others on an attribute, one can devalue the importance of the attribute and treat is as trivial. On the other hand, one can magnify and

emphasize the significance of attributes on which one excels. Heider (1958) states that the value of something may be reassessed by the person who lacks it, and Lewin, Dembo, Festinger and Sears (1944) speak of switching standards to avoid feeling failure. Lecky (1969) cites as one method of dealing with inconsistencies the notion that the individual will interpret an incident in such a way that it can be assimilated. A graphic picture of re-evaluation comes to mind in the Aesop fable about the fox who devalues the grapes he cannot have.

Evaluation of the Source of Feedback

In addition to an evaluation of the attribute itself, an individual makes a judgment of the source of feedback. Evaluations can mean different things depending upon the source from which they originate. An individual often has available the mechanism of devaluing the credibility of a source who says something negative, or of enhancing the credibility of someone who says something positive. Argyle (1969) notes that this option of devaluing the source of information or the carrier of information is one way of preserving self-esteem.

Choice of Social Comparison

The final response measure to be considered in this paper is social comparison choice. Previous discussion has noted that this is a tactic one can use to make oneself feel better by comparing with someone who is worse off than oneself (e.g. Hakmiller, 1966).

Summary

In discussing self-esteem, social comparison, attributions of causality and evaluation of both the attribute and the source of feedback, we have considered five reactions to others' evaluations of us. Four of these factors (attributions of causality, social comparison choice, evaluation of the attribute, evaluation of the source of feedback) can be used to achieve self-enhancement, while self-esteem change is another possible reaction. There are of course many variables that pertain to and influence attempts at self-enhancement and changes in self-esteem, but only a few of the important ones are considered here. We deal with the importance of the characteristic on which the individual is evaluated, whether it is an opinion or ability, the source of feedback in terms of credibility, and whether the individual receives positive or negative feedback. In accord with the conceptual and empirical evidence cited, specific hypotheses are then advanced.

Influencing Variables and Empirical Predictions

Importance of the Characteristic

This section includes material relevant to importance of the particular characteristic from the areas of self psychology, attitude change and social comparison processes. Allport (1968) distinguished between matters that are vital and central to the self and those that are peripheral. The assumption is that important characteristics are vital to the self and it is more likely that self-esteem pressure will arise with more important characteristics (Singer, 1966). Rose (1966) stated that self-enhancement occurs more strongly when the contents are

very salient to the individual. He defines content salience as importance to p of a particular kind of evaluation. Rosenberg (1968) emphasized the importance of knowing how much a person values a quality and how good the person wants to be. In reading through the literature one notes the many definitions of importance as well as the fuzzy distinctions between importance and related terms such as salience and valence. In the conceptualization here a characteristic that is important to someone is defined as being of greater value to that person. Presumably the person cares more about being good on an important characteristic than on an unimportant one. The drive to evaluate is thus more pertinent for central, vital, important characteristics. Festinger (1954a) says that in a group situation there is an increase in the pressure to reduce any discrepancy of opinion as the importance of the issue increases. Argyle (1969) points out that the self influences behavior in situations which are ego-involving and which bring self-esteem into operation. He also notes that importance to the performer of the variable being assessed influences the extent to which self-awareness is aroused.

Researchers in the area of attitude change have also considered the impact of importance of the attitude object and related concepts to behavioral response. In the social judgment theory of attitude change, Sherif and Hovland (1961) consider the topic of involvement in an issue and its relation to latitudes of acceptance and rejection in an attitude change situation. They state that ego-involvement limits the range of assimilation for attitude positions different from one's own. Rokeach (1968) also notes that not all beliefs are equally important to the individual. Beliefs vary along a central-peripheral continuum. The

more a belief is functionally connected with other beliefs, the more central it is and the more implications it has for other beliefs. He has experimental support for the idea that individuals show greater resistance to change on central rather than peripheral beliefs.

Other theories dealing with attitude change recognize the implications of the importance of a belief or attitude. Festinger (1957) states that the more important an attitude is to an individual, the greater will be the resulting dissonance after exposure to contradictory bits of information. And greater dissonance leads to a stronger motivation to do something to reduce the dissonance. Abelson (1967) proposes that when two cognitive elements stand in imbalanced relation to each other, the tendency will be to apply bolstering toward the more intensely affected element. Another possible response is denial of the implications of the less intensely affected element and/or denial of the relation between the two elements. Krech and Crutchfield (1948) state that in understanding and predicting behavior it is as necessary to know how important or central an attitude is as it is to know the sign or extremity of the attitude. Eagly and Manis (1966) found that issue involvement had a significant effect on junior high school students' responses to messages challenging their views. For high involvement the communicator and message were evaluated much less favorably than when subjects were characterized by low involvement.

The above citations refer to importance of the characteristic itself. While social comparison literature has not directly considered this factor, the results of the Hakmiller (1966) and Wheeler (1966) studies show that evaluation of the characteristic prior to receiving feedback is influential. Wheeler found that when the characteristic was

positively valued subjects chose similar comparisons, but Hakmiller dealt with negatively valued traits and found no support for the similarity notion. Thornton and Arrowood (1966) conducted research on the goal valence of an ability (strongly positive or strongly negative) and found that a significantly greater number of subjects chose to compare with someone better off than themselves in the positive than in the negative conditions. Wheeler et al. (1969) found that the direction of comparison (downward or upward) was related to positivity-negativity of the characteristic. These experiments were not considering the importance of the characteristic per se but they do illustrate that prior evaluations of the attribute can differentially affect behavior.

In accord with the conceptual and empirical work cited, several hypotheses are proposed. It is hypothesized that negative feedback on an important attribute is more likely to lower self-esteem than is negative feedback on an unimportant characteristic. Likewise, reactions to positive feedback differ based on the importance of the characteristic, with positive feedback on an important attribute more likely to raise self-esteem than positive feedback on an unimportant one (Hypothesis I).

In terms of attributions, the motivation is greater to attribute negative feedback on an important characteristic to the environment and positive feedback to the self than when the characteristic is less important. This constitutes Hypothesis II. Schlenker (1975a) obtained significant positive correlations between importance of doing well and subjective ratings of personal responsibility in extreme success conditions. There was not a corresponding negative correlation between perceived responsibility and importance of doing well in failure

conditions. He suggests that perhaps subjects in failure conditions were hesitant to attribute failure to the other members of their group in the study. This could have been due to social constraints against such behavior or because their identification with their group led them to include the group in their egocentric attributions. The final possible explanation is that subjects rationalized failure by denying the importance of doing well.

Important and central beliefs are more functionally connected to other beliefs (Rokeach, 1968). For this reason it is more difficult to re-evaluate the importance of an important characteristic than it is to change evaluation of an unimportant characteristic (Hypothesis III). Prior research supports this hypothesis. Miller (1965) found that high issue involvement consistently reduced the persuasive effect of discrepant information on a variety of response measures. In an opinion change experiment, subjects high in initial concern for the opinion issue changed their opinions less than did subjects low in concern for the issue (Fine, 1957). Similarly Snyder, Mischel and Lott (1960) studied people who were either high or low on aesthetic value (Vernon-Allport Study of Values) in a social influence situation. The high-aesthetic-value subjects conformed much less than did the low-aesthetic-value subjects. Thus resistance to re-evaluation should be especially manifest for important characteristics. This parallels the asymmetry observed in the level of aspiration studies with individuals (Lewin et al., 1944) and with groups (Zander and Medow, 1963). In the latter study members' evaluations of their own performance is more strongly determined by their group's score when the group succeeds than when it fails.

In line with the notion that one cares more about looking good on an important characteristic, it follows that a self-enhancing comparison other will more often be chosen on an important characteristic than on an unimportant one (Hypothesis IV). This contradicts Festinger's (1954a) hypothesized drive for accuracy, which no doubt should also be greater for more important issues than for unimportant ones. In making the enhancement prediction, we are not so much clearly discarding the Festinger hypothesis as noting an important exception in that we all seek self-enhancement at times, especially when accuracy is not important for some decision or future activity.

Nature of the Characteristic

Another aspect of the characteristic is applicable and is in fact a part of Festinger's (1954a) theory. This has to do with the focus of evaluation---in Festinger's terms, whether one is being assessed on an opinion or ability. Although both are considered together in most of his discussion, Festinger does point out that there are two major differences: there are non-social constraints that either make it impossible to change an ability or make it much harder to change an ability than to change an opinion, and there exists a unidirectional drive upward for abilities but not for opinions. This latter point refers to the fact that different performances on an ability usually have intrinsically different values, and there is merit set on doing better and better (at least in Western culture). The higher the score on a performance, the more desirable it is. But with opinions there is no inherent basis for preferring one over another. Value comes not from having greater

or less worth, but from the subjective feeling that the opinion is valid and correct. This relates to Sullivan's (1953) process of the consensual validation of beliefs and Blau's (1967) point that social consensus defines beliefs as right or wrong. The distinction between physical and social reality is relevant here. In determining where a person stands on an ability, physical reality is a more likely recourse for judgment, but it is not available in the case of opinions. Furthermore, in line with Gordon's (1966) conceptual and empirical work on influence theory versus social comparison, an individual can attempt to persuade someone with a different opinion, but this is not likely to be an option for someone differing on an ability.

In light of the present conceptualization of self-esteem as an evaluative attitude toward oneself, and pertinent to abilities and opinions, it is assumed that there is a unidirectional drive upward. In other words, it is "better" and more statistically common to have a positive evaluation of oneself. Self-enhancement behaviors are examples of attempts to achieve and maintain a positive attitude about oneself. In the present context one important difference between opinions and attitude toward oneself is that the unidirectional drive upward exists for attitudes about oneself. Festinger's (1954a) point that opinions are valid based only on consensus with opinions of others can be seen in terms of the self being enhanced if others have similar opinions. Of course the self is also enhanced if others have favorable opinions of that person.

Gerard (1968) states that Festinger misled the field when he discussed ability and opinion as two distinct processes, since they are "inextricably connected," with ability comparison being the more

fundamental. Gerard states that a person compares his or her own opinion to that of someone else in light of what is assumed to be the ability of the other person to form and hold an opinion on the issue in question. There is some validity to this point though there seem to be numerous counter-examples. Are movie stars in possession of special abilities to hold opinions on breakfast cereals, detergents and the like? Yet many Americans seem to be influenced by the prestige suggestion that Madison Avenue uses in advertizing campaigns. There are also fundamental differences between opinions and abilities that have ramifications in personal behavior. For instance, ability but not opinion is demonstrated through performance. It can therefore be seen as more of a reflection of the person, and thus is more related to self-esteem and feelings of worth about oneself. And as Heider (1958) outlines so well, attributions of ability are a common part of our lives in observing others' behavior as well as our own. There exists no such notion of a stable, underlying disposition when evaluating opinions.

Therefore it is hypothesized that subjects are more likely to choose a similar supporting social comparison person in the case of evaluation of opinions than in the case of evaluation of abilities. Hypothesis V follows from the absence of a physical reality to assess the validity of opinions. Since the subjective feeling of accuracy of opinions comes from social consensus, individuals are more likely to look to others of the same opinion. In this manner, individuals can attach validity to their own opinions.

Opinions have a social basis and therefore can be seen as being less a reflection of the individual's inherent being than are abilities. We have stated that there is no notion of an internal attribute of an

opinion that is comparable to the attribution of a personal ability disposition. Though attributions are made about us on the basis of our opinions, we have the option of opinion change, which is not as likely with abilities. Therefore, ability issues are more closely associated with the individual and have more influence on self-esteem. Thus we would expect more change in self-esteem following assessment of an ability than after opinion evaluation (Hypothesis VI). The non-social constraints on abilities make change less likely as a response than is opinion change.

Similar reasoning leads to the hypothesis that the attribution of positive performance to the self and negative performance to the environment will be more probable for abilities than for opinions (Hypothesis VII). This is because it is hypothesized that ability forms a more permanent unit with the self than does opinion, and because self-enhancement is more important with abilities. In addition, opinion change is possible when one does not get confirmation of an opinion, but ability change is not usually available to an individual. Because of this asymmetry, re-evaluation of the characteristic's importance will occur more often for abilities than for opinions (Hypothesis VIII).

Source of Feedback

Typically people have some notion of their own performance or possession of an attribute and desire to know what that means in terms of the standing of others on the same characteristic. The source of any feedback people might get about their opinions, abilities, or other characteristics will have some effect on their reactions and how they deal with that information. Aristotle noted that the speaker is a force

just as important as the receiver or the message itself (Bettinghaus, 1968). Wylie (1961) states that the source of alleged failure or devaluation is important. There is a difference between the experimenter judging subjects on the basis of a standard and subjects discovering for themselves that they cannot do a task. Argyle (1969) notes that changes of self-image are more likely to occur if the other person is regarded as a valid source of information. Among Pepitone's (1958) hypotheses about status relations serving to mediate attributions of causality, one notion is that higher status people are seen as having more valid and competent observations and criticisms. Heider (1944) cites the phenomenon of prestige suggestion, where the acceptance of statements and evaluations depends on the prestige of the person to whom they are attributed.

Several studies on attitude change have shown that communicator variables have important influences on behavior. Sherif and Sherif (1967) note the importance of source variables in that high status increases the range of assimilation for a communication. Kelman (1961) discusses the importance of such communicator variables as credibility, power and attractiveness. Hovland, Janis and Kelley (1963) point out important factors influencing communication effectiveness are the communicator cues as to the trustworthiness, intentions and affiliation of the source. These presumably influence the evaluation of the communicator's presentation and the receiver's acceptance. Hovland et al. (1963) hypothesize no difference between different communicators in receiver's attention and comprehension based on credibility. Rather, the difference seems to come from the motivation to accept the conclusion advocated. Arnet, Davidson and Lewis (1931), Haiman (1949) and Hovland

and Weiss (1952) demonstrated a positive relationship between the credibility of a communicator and the extent of opinion change. The same communication was judged less fair and less justified when given by a low-credible source, although the effect had disappeared four weeks later (Hovland and Weiss, 1952). It seems that the effect of the source is maximal at the time of the communication. Aronson, Turner and Carlsmith (1963) showed that a high-credible communicator was more successful in inducing opinion change than a mild-credible communicator. This occurred at every point of discrepancy between subject opinion and communication. Johnson and Steiner (1968) examined the influence of source of evaluation on fraternity members' responses to negative information about themselves. With a low-credible source there occurred little or no conformity, assimilation or rejection of the source as invalid. The more-credible source led to rejection and conformity. The authors draw attention to the need to test readjustment of the subjective scale of judgment such that "goodness" is represented by a lower rating than it was previously. They suggest that this phenomenon may occur instead of loss of self-esteem.

Some of the attribution literature relates to the effects of communicator status. Kelley (1967) discussed information dependence of A on B if B can raise A's level of information to a level higher than A can attain from alternative sources. But A must make attributions regarding B's message and arrive at a perceived validity using the external criteria of distinctiveness, consistency over time, consistency over modality and consensus. Communicator factors that are particularly relevant to attributions A might make of B's message are B's expertness, and trustworthiness. The former reflects contact with external causal

variables relevant to the message, while the latter refers to an absence of irrelevant causal factors in B's statements.

The above discussion makes the point that communicator devaluation is open to the individual who does not want to accept an unfavorable communication and wants to continue to see the self in a prior favorable light. If individuals get some negative feedback or learn of failure on a characteristic from another individual, they may derogate the communicator and try to minimize the importance and validity of the feedback.

It is hypothesized that the more credible source of feedback causes more effect on the subject's self-esteem than does a less credible evaluator (Hypothesis IX). This follows because the more credible evaluator's statement carries more weight and appears more likely to be accurate, and because it is harder to devalue a more credible person. This latter point is an additional hypothesis stemming from a cost framework in that it is harder (more cognitively costly) to lower evaluation of a highly evaluated object than a low one (Hypothesis X).

The last hypothesis concerned with the credibility of the source of feedback is that following feedback from the more credible person, individuals are more likely to attribute the performance to the self following positive feedback and to the environment following negative feedback than they are for the low-credible source (Hypothesis XI). This follows from the fact that a more credible source's communications are viewed as more accurate than a low-credible source's communications. Bettinghaus (1968) states that the perceived differences in status between source and receiver may well lead to one individual being perceived as more worth listening to, more believable or more influential.

A related influence is that a more credible person is probably further removed from the receiver in status than the less credible person. The comparison between self and communicator may be an important underlying mechanism in the process of acceptance of a communicator's message.

Feedback Outcome

A crucial variable in considering reactions to feedback about oneself is whether it is positive or negative. Wylie (1961) discusses the effects of success and failure on task-relevant or global self-esteem. Not only is a person's level of self-regard of great importance in predicting behavior, but self-esteem can be temporarily raised or lowered in response to experiences and feedback from others. Singer (1966) states that in the social comparison process, one is implicitly evaluating an opinion of oneself and one's self-esteem. Morse and Gergen (1970) conducted research which lends support to this notion. They based their study on the assumption that the social comparison process is a source of instability in self-conception. Subjects were exposed to either a very socially desirable or undesirable person applying for either the same or a different job. A dependent measure showed that subjects exposed to the socially desirable person lowered self-esteem while self-esteem was raised for subjects who met the undesirable applicant.

Argyle (1969) states that experiments on the effects of manipulated success/failure on self-esteem generally show the expected effect of lowered self-esteem following failure and raised self-esteem after success. But there is more change of self-report upwards following

success than downwards after failure. Here is a manifestation of the desire to protect and enhance the ego. Examples of studies showing the influence of success and failure on self-ratings are Koocher (1971) and Videbeck (1960). Koocher investigated swimming competence and personality change in adolescent boys. Development of swimming skill resulted in the enhancement of self-concept, giving some support to White's (1959) contention that a sense of competence is basic to the development of self-esteem. Boys who did not increase in swimming competence did not show a negative influence on their self-concept. Videbeck found that feedback from a "speech expert" who evaluated the subject's poetry reading resulted in the most change in self-rating on the same scales the expert used. Less change was evident on related scales and no change occurred for unrelated self-rating scales. Thus self-concept change was more likely on relevant dimensions than on global self-evaluation.

Several investigators failed to find evidence for such defensive reactions to negative feedback. Regan, Gosselink, Hubsch and Ush (1975) found no evidence for self-enhancement in their subjects. Students were given either no feedback, praise or criticism about their own or another student's performance and responded to the question, "How good do you think your (her) answers were?". Actors rated themselves less positively than observers rated them. The authors suggest the notion of self-derogation in anticipation of evaluation to explain the results. In addition, all subjects were females, which may be related to a similar effect in a study (Nicholls, 1975) where females were more likely than males to derogate themselves. In addition, Regan et al. only tapped one possible mode of response to evaluation. Subjects may have employed

some other cognitive mechanism as a self-aggrandizing tactic. A further possibility is that subjects did not take the situation as seriously as is necessary to experience threat from negative feedback. Eagly and Acksen (1971) found that subjects were more receptive to positive information about themselves than negative information when they expected future evaluation. In the negative-information condition there was no difference between expectancy levels. This offers some support for Regan et al.'s notion of self-derogation in anticipation of evaluation. Israel (1963) found a larger private acceptance of attitudes which underrated the self than with those that over-evaluated the self. Another instance of failure to demonstrate self-enhancement is a study by Howard and Berkowitz (1958) investigating reaction to one's evaluators. The results suggest that the desire for accuracy sometimes outweighs the desire for self-enhancement, as Festinger states. It is important to point out that this was a role-playing study, which lessens one's confidence in the findings.

There are two general areas of explanation for this series of failures to demonstrate self-enhancement responses. The theoretically more interesting possibility has to do with expectation of future evaluation and the concomitant self-derogation in anticipation of evaluation. This may constitute a limiting influence on the conditions under which self-enhancement occurs. The other general explanation concerns methodological issues such as narrow sample, using only one response mode or situation that subjects may not take seriously.

The level of aspiration studies are also relevant to reactions to positive and negative evaluation. Lewin et al. (1944) elaborate on the psychological feeling of success or failure and the cessation of

activities when possibilities of achieving further success are not good. One can avoid feeling failure by switching the standard (changing the goal line, in their terms) after the fact or by severing the relation between performance and the self. The latter point of course refers to attributional processes. A way to lift morale after failure is to restructure the field so that defeat is not attributed to one's own inferiority (Heider, 1944). Merton (1946) proposes that attribution of causality may be a defense one is prone to use after failure. The belief in chance enables one to preserve self-esteem following failure. In short, one can make attributions so that self-esteem is not affected.

Weiner et al. (1972) suggest that in attempting to explain a success or failure outcome, people assess own and other's ability level, amount of effort, difficulty of the task and magnitude and direction of experienced luck. The first two elements reflect personal locus of causality while the latter two are external sources. The authors have found that success is more likely to be attributed to personal factors, and failure tends to be attributed to external sources. Such tactics can be seen as ego-defensive and as manifestations of attempts at self-enhancement. Streufert and Streufert (1969) examined the effects of success and failure on attribution of actuality. Subjects in decision-making teams attributed more causal effect to their own team under success than under failure. Johnson, Feigenbaum and Weiby (1964) also found support for attributing success (more than failure) to the self. In Schlenker's (1975a) study there was a main effect for performance on attribution of causality to luck, in that failure subjects stressed luck more than did success subjects. Frieze and Weiner (1971) conducted a simulation study in which successful subjects were more likely to

attribute performance to internal sources than were failure subjects. Fitch (1970) found experimental support for the proposition that a drive for self-enhancement disposes subjects to attribute success outcomes to internal sources to a greater extent than is true of failure outcomes. There was also partial support for the notion that self-esteem consistency affects causal attributions, in that low self-esteem persons who perceived failure feedback attributed more causality to internal sources than did their high self-esteem counterparts. Fontaine's (1975) research led him to conclude that ego-oriented motives were more important in self-attributions in a real task situation than was true for other-attribution in a simulation study. He states that comparison with a similar other might be one important factor increasing the salience of ego motives.

Nicholls (1975) states that there are two bases for predicting an individual's attributions. One is that people use information in a logical fashion, while the other holds that attributions reflect self-enhancement, approval-seeking and defensive motives. In research with fourth-graders Nicholls found less evidence of bias after the test trial than after the practice trial. In fact, failure was attributed to poor ability more than success was attributed to good ability. This suggests a derogatory bias rather than self-enhancement. Biased use of information also varied with attainment value of the characteristic and with sex of the subject. Luginbuhl, Crowe and Kahan (1975) found that success was attributed to internal and unstable elements while failure was attributed to stable elements. Successful subjects attributed their performance to effort almost twice as much as to ability, while failing subjects made attributions to ability four times as much as to lack of

effort. Another study not supporting the notion of self-enhancement was conducted by Chaikin (1971). Subjects participated in a twelve trial "game" with the dependent measure taken after trials one, five and twelve. There were no differences between success and failure or between ascending and descending feedback. The authors state that in cases of failure subjects may see the possibility of bettering their performance through persistence.

The last set of self-enhancing hypotheses to be presented here concern the feedback variable and stem from the desire to make oneself look good. In line with this, negative feedback tends to lower self-esteem while positive feedback does not (Hypothesis XII). After positive feedback subjects will give a source a higher evaluation than subjects receiving negative feedback, who will tend to devalue the characteristic as well (Hypotheses XIII and XIV). Continuing this attempt at self-enhancement, a subject who has failed (gotten negative feedback) will be more likely than a subject who has succeeded to choose a comparison who is worse off, thus looking and feeling good in comparison (Hypothesis XV). The probability of performance being attributed to the environment is greater for negative feedback than for positive, which will be attributed to the self (to ability and personal characteristics and effort). This constitutes Hypothesis XVI and will be especially true for an important ability. Finally, the lowering of self-esteem following negative feedback is the least likely response since modes of self-enhancement will be attempted first (Hypothesis XVII). But if self-enhancement does not occur, self-esteem will drop.

An important part of this study, in contrast to many other experiments on self-evaluation, is the measurement of several modes of

self-enhancement. A potential methodological problem for such a situation is that subjects may show an effect (work out self-enhancement) on the first possible opportunity. It is thus important to vary the order of measurement of dependent variables and to test for order effects. This issue will be more fully addressed in methodology and results sections. Another question, to be addressed in the analyses, is the evidence for alternative use of self-enhancement responses; this refers to the question of whether subjects will exhibit self-enhancement on only one of the dependent measures.

Summary and Hypotheses

The basis of the previous material is that there will be some effect on behavioral or cognitive reactions following information about one's position on a characteristic relative to others' positions. Specifically, in this context, the individual will exhibit some behavior relating to enhancement or protection of the self, taking advantage of positive feedback and compensating for negative feedback. This is offered as a co-existent formulation to Festinger's (1954a) theory about using comparison with others to achieve accurate appraisal of oneself. In situations where self-esteem is more important than accuracy, Festinger's notions will not apply. Rather, the process of self-enhancement will occur. Secord (1968) lists two contexts evoking self-evaluation: situations where one deviates from a self-standard and at times when others give direct or implicit evaluation of the self. In such situations the desire for self-enhancement is probably greater than the desire for accuracy. The present methodology presents

individuals with evaluation of the self, presumably leading to self-enhancement pressures.

Cohen (1959) states that research is needed on the modes of self-evaluation. There are a number of aspects of human behavior that have the potential for reflecting self-enhancement efforts. We have chosen five behaviors, with the implicit assumption that these are the most common types of reaction. At a general level, the hypothesis is presented that some reactions will be manifested in at least one of the following areas: self-esteem, evaluation of the characteristic, attributions of causality, choice of social comparison other and evaluation of the source of feedback. We have stated that subjects will show some response on at least one of these variables, after negative feedback especially, but which response any one subject chooses cannot be predicted with much accuracy. In observing these behaviors only, we run the risk that reaction may occur in some other area of the individual's behavior or cognitions. But the thesis is that effects will be most likely seen in the forementioned behaviors. The following hypotheses deal more specifically with the relationship between the independent and dependent variables.

Hypothesis I — Feedback on an important characteristic is more likely to influence self-esteem than is feedback on an unimportant characteristic, in that negative feedback on an important characteristic lowers self-esteem while positive feedback raises self-esteem.

Hypothesis II — More differentiation between attribution of causality to the self and environment following positive and

negative feedback occurs when the characteristic is important than when it is not important.

Hypothesis III Subjects are more likely to have a low evaluation of an unimportant characteristic than to have a low evaluation of an important one following negative feedback.

Hypothesis IV Feedback on an important characteristic more often leads to choice of a self-enhancing comparison other than does feedback on an unimportant characteristic. Negative feedback on an important characteristic more often leads to choice of someone scoring more poorly as a comparison.

Hypothesis V When the characteristic is an opinion rather than an ability, subjects more often choose a similar (and thus supporting) social comparison following negative feedback.

Hypothesis VI Ability-feedback has more effect than opinion-feedback on self-esteem.

Hypothesis VII The differentiation between attribution of causality to the self and environment is greater in the case of positive and negative feedback on abilities than for opinions.

Hypothesis VIII Subjects are more likely to give a low evaluation of an opinion characteristic than an ability characteristic following negative feedback.

Hypothesis IX A credible evaluator's feedback has more effect on self-esteem than does feedback from a less credible evaluator.

Hypothesis X Subjects are more likely to give a low evaluation of the low credible evaluator than the more credible evaluator following negative feedback.

Hypothesis XI Differentiation between attributing positive feedback to self and negative feedback to environment is more pronounced for a credible than for a less credible evaluator.

Hypothesis XII In general, positive feedback tends to raise self-esteem while negative feedback leads to lowered self-esteem.

Hypothesis XIII Positive feedback leads to a higher evaluation of the source of feedback than does negative feedback.

Hypothesis XIV Positive feedback leads to a higher evaluation of the characteristic than does negative feedback.

Hypothesis XV Following negative feedback motivation to choose a more negative comparison is greater than after positive feedback.

Hypothesis XVI Positive feedback leads to more attributions of causality for performance to the self and negative feedback is attributed to the environment.

Hypothesis XVII Lowered self-esteem is least likely as a response following negative feedback, since modes of self-enhancement will be attempted.

CHAPTER TWO
METHODOLOGY

Subjects

One hundred and ninety-two undergraduate students enrolled in introductory psychology received experimental credit for participating in the study. Three additional subjects had to be deleted from the sample: two were suspicious and one had been told about the experiment by a previous participant.

Design and Overview

The main design of the study was a 2 x 2 x 2 x 2 between-subjects factorial design varying importance of the characteristic on which subjects received feedback (high or low importance), the nature of the particular characteristic on which subjects received feedback (ability or opinion), source of feedback (moderate or low credible source), and nature of the evaluation outcome (positive or negative). Twelve subjects participated in each of the sixteen cells. Nested within the two variables dealing with the characteristic were three different important opinions, three different important abilities, three different unimportant opinions and three different unimportant abilities. Two pairs of female experimenters conducted the study, with one member of each pair always playing the part of "project coordinator" (Experimenter

A) and the other being "interviewer" (Experimenter B). Each subject was exposed to only one pair. Equal numbers of males and females served in each condition.

Before presenting the procedure, an outline is given of checks on the operationalization of the independent variables. Thus, when reading the procedure, readers will be aware that independent variable manipulations had been previously rated appropriately by similar college student samples.

Independent Variable Manipulations

For nature and importance of the characteristic a sample of 55 undergraduates from introductory psychology (males and females) rated a list of 54 opinions or 56 abilities on their importance [see Appendix A]. Based on these ratings the final 12 characteristics were chosen so that 6 characteristics were rated significantly more important than 6 others, but such that differences in ratings did not exist within ability or opinion categories. The first question asked subjects to rate "how important you think it is for someone to have an opinion on that object (be good on that ability)." Analysis of variance showed that there were significant differences in importance between characteristics, F (11,648) = 422.19, $p < .01$. Scheffé's multiple comparison tests showed that important attributes in general differed significantly from unimportant attributes. Unimportant attributes were similar, except that the rating for cross-word puzzles was higher than the rating for platform shoes ($p < .05$). The characteristics and their mean ratings are given in Table 1.

Table 1
Mean Ratings for Independent Variable Characteristics

Important Abilities		Important Opinions	
Clear thinking	5.46	Education	5.37
Reading comprehension	5.26	Law and justice	5.37
Decision-making	5.24	Self-reliance	5.26
Unimportant Abilities		**Unimportant Opinions**	
Building cupboards	2.32	Birthday parties	2.23
Flower arranging	2.37	Platform shoes	1.58
Cross-word puzzles	2.67	T-shirts in public	1.83

The second question asked raters how interested they would be in finding out whether their expressed opinion or ability performance was similar to that of experts in a relevant field. Again, analysis of variance showed that significant differences existed, F (11,648) = 153.32, $p < .01$. Scheffé's multiple comparison procedures showed that important characteristics differed from unimportant ones, but there were no differences within categories.

For source of evaluation feedback, the two interviewers who gave the feedback to the subjects were rated by nine introductory psychology students prior to the main study as a check on the credibility manipulation. Below is a description of the manipulation of credibility:

Moderate credibility. For moderate credibility the interviewer dressed in a professional-looking pantsuit or dress, over which she wore an unbuttoned white lab coat. On the wall above her desk was a plaque signifying that she had received the Personality Interviewer

degree from the Institute for Assessment Research. When she first addressed the subject in her office, she said, "Hello, I'm Miss Cohen. I've had a lot of experience scoring and interpreting these scales and I'm known for being quite effective at this. But I still enjoy talking with our participants."

Low credibility. The low credible interviewer wore blue jeans and a casual shirt, in the manner typical of undergraduate dress. On the wall over her desk was a still life picture. When she first spoke to the subject she said the following: "Hi, I'm Carol Cohen. I haven't had much experience at scoring and interpreting these scales. I'm just learning to do this interviewing, so I hope this comes out all right."

The three questions which the raters answered, and the results of t-test comparisons are given in Table 2.

For performance feedback 18 pilot subjects (males and females) were led through the procedure and gave ratings of the feedback they received. They had randomly received positive or negative feedback appropriate to their opinion or ability condition. The interviewer gave one of the following four statements:

Positive ability: "The way you answered this scale is very similar to the way experts in this area answered it. You did quite well compared to other people who have completed this scale. Your score was 201."

Positive opinion: "The views you expressed on this issue are very similar to the opinions of experts in this area who completed this scale. You did quite well compared to other people who have answered this scale. Your score was 201."

Negative ability: "The way you answered this scale is not at all

Table 2
Manipulation Check for Credibility Variable

1. "How much faith do you put in the interviewer's ability to score and interpret the student's scale?" (Six point scale)

	Mean	Standard Deviation	
Low credibility	2.0	1.4	
			t (7) = 1.93, $p < .05$
Moderate credibility	3.8	1.6	

2. "How experienced is the interviewer at the task?" (Six point scale)

	Mean	Standard Deviation	
Low credibility	1.75	1.5	
			t (7) = 1.96, $p < .05$
Moderate credibility	3.20	0.5	

3. "How professional was the interviewer?" (Six point scale)

	Mean	Standard Deviation	
Low credibility	2.0	0.57	
			t (7) = 2.29, $p < .025$
Moderate credibility	3.2	0.84	

similar to the way experts in this area answered it. You did not do very well compared to other people who have completed this scale. Your score was 141."

Negative opinion: "The views you expressed on this issue are not at all similar to the opinions of experts in this area who completed this scale. You did not do very well compared to other people who have answered this scale. Your score was 141."

Subjects responded to two questions concerning the feedback they received. The results of the analyses can be seen in Table 3.

Table 3
Manipulation Check for Feedback Variable

1. "Rate your standing anywhere from -3 to +3." (Seven point scale)

	Mean	Standard Deviation	
Positive feedback	1.66	0.5	t (15) = 8.12, $p < .001$
Negative feedback	-1.38	1.06	

2. "What is your reaction to your feedback? Assign a number from +3 equals "good" to -3 equals "bad"."

	Mean	Standard Deviation	
Positive feedback	2.00	0.86	t (16) = 3.53, $p < .005$
Negative feedback	0.22	1.17	

In summarizing the manipulation checks, the analyses show that the manipulations for the independent variables were successful in that differences were perceived by pilot subjects. Important and unimportant characteristics differed, moderate and low credibility were seen differently and the two feedback conditions elicited different reactions.

Procedure

In six large group sessions of at least twenty people in each, undergraduates convened for the first part of the study. The project coordinator (Experimenter A) conducted the session, beginning with the following introduction: "Hello, I'm the local representative for the Institute for Assessment Research which is based in New York City. The Institute is conducting a large nation-wide study on the assessment of different abilities and opinions in many segments of the population.

Our local group is in charge of a study on university students. This study involves two sessions--today I will administer the assessment scales to you and a background information sheet. We are assessing several abilities and opinions, but each of you will receive only one scale, so do not be concerned if the person next to you has a different scale. At the second session each of you will meet individually with one of our staff who will tell you how you responded compared to other people. This study is concerned with differences in opinions and abilities based on background variabiles. When we evaluate your response we make two comparisons: how you compared to people with similar backgrounds and how you compared to a set of experts from the particular ability or opinion field, who filled out our scales several weeks ago. In the booklet I'm handing out to you, you'll find a cover letter explaining the project, a background information sheet and one of the assessment scales. Please answer as completely as you can. On the first page, please put your name and phone number so we can reach you to schedule the second session. After you have been given feedback on your scale response, your name will be separated from the booklet and all later analyses will be done anonymously." Subjects then completed their booklets. One of the twelve characteristics was thus randomly given to each subject, making sure an equal number of males and females received each characteristic. (See Appendix B for copies of the cover letter, the background information sheet and the assessment scales.)

Within a week subjects were called and scheduled for a half-hour session in the Psychology Building. When they arrived, the interviewer's room was arranged for the appropriate credibility condition. After the initial introduction and credibility manipulation, the interviewer

said, "I'm going to give you some information on how you performed relative to experts who filled out this scale and compared to other subjects. Then I have some forms for you to fill out to help us in our research. But first your Psychology Department requires that we get your informed consent." Subjects read the form, signed it and the experiment continued. Subjects randomly received positive or negative feedback appropriate to their ability or opinion condition. After this, the interviewer said, "That's all I have on that right now. I'd like you to complete these two forms for me." She then administered the self-esteem measure and the attribution of causality measure (see Appendix C). The order of administration was alternated so that some subjects received the self-esteem measure first and others got the attribution scale first. When the subject had completed these scales the interviewer said, "The project coordinator wants to see you for a few minutes, but she's late in getting here. We have copies of different levels of quality of responses to the scales in these folders. Here are some people who scored above 210, here's 131-170, here's 171-210 and here's below 130. You can look at these while I get the coordinator." For each session the interviewer randomly varied the placement of the folders and the order in which she described them. As she stood to go to the door, she noted which folder the subject consulted. As she went into the hall, the project coordinator (Experimenter A) "just happened" to arrive at that moment. She introduced herself and led the subject to another office. Experimenter A was blind to the subject's condition. When seated in the other office, she said, "There are a couple of research concerns I have about this project and I'd like you to answer some questions that will help me. One concern has to do

with the notion of standardization. I don't know how much you know about research, but what we strive for is to have each participant be treated in the same way and go through the same process. This is a little hard in this case where we have several interviewers, each of whom sees only some of the participants. I'd like to get some idea of how they are each conducting the sessions to see if they're pretty much doing the same things the way they're supposed to be doing. So I have a rating form I'd like you to fill out about the session you just had with the interviewer. Please answer honestly and don't feel you're putting someone's job in jeopardy because you're not. That's not how I use this information. The other form is needed because we are thinking of putting some new characteristics in the study. Before we do that I'd like some idea of how people rate the characteristics. Included on this form are some opinions and abilities we're using now as well as the ones we hope to use in the future." Experimenter A varied the order of administration of the Personnel Performance Sheet and the Attribute Rating Scale. When subjects had finished, a debriefing session was conducted and subjects were probed for suspicions. In addition, Experimenter A told them the nature of the study and asked them to maintain silence about the study since more subjects from the psychology classes would be participating.

Dependent Variable Measures

In order to tap several psychological processes that might be influenced by the independent variables, measures were taken on five general dependent variables. (See Appendix C for copies of these measures.)

1. The attribution of causality for individual performance measure asked subjects to state percentages of their performance due to ability, effort, task difficulty and luck. In addition, they rated each of these four elements on a five point scale in terms of the degree to which it was a cause of their behavior. A summary measure was calculated for each of these two types of measures: the sum of task and luck ratings was divided by the sum of ability and effort ratings giving an indication of whether performance was attributed more to self or environment.

2. Self-esteem was measured by the Janis-Field Feelings of Inadequacy Scale and the Rosenberg Self-esteem Scale. Reliability and validity data for these scales are presented in Table 4. These scales were untitled when presented to the subject. The scores were summed giving a total self-esteem index score.

Table 4
Reliability and Validity Data for Self-esteem Scales

	Janis-Field Feelings of Inadequacy Scale	Rosenberg Self-esteem Scale
Reliability	Split-half .72 to .82	Test-retest .85
	Interitem .30	
Validity	Convergent .67 to .84	Convergent .56 to .83
	Discriminant .35	
	Predictive .24 to .27	

Note: See Robinson and Shaver (1973) and Rosenberg (1965).

3. Personnel Performance Sheet included ratings of the interviewer on 11 adjectives. In addition, subjects gave an overall rating of the

interviewer, a rating of her clarity in giving instructions and an assessment of how good she was for the job.

4. The Attribute Rating Scale consisted of ratings of 17 characteristics, including the one on which the subject had been assessed. Four questions tapped importance to the self, importance to the general public, extent to which a friend would refer to the characteristic in describing the subject and how interested the subject would be in getting feedback on her/his standing relative to others. Included as ratings of the characteristic were three items found on the Personnel Performance Sheet. These were ratings of the initial assessment scale on its validity, its accuracy as a measure and its usefulness.

5. Social comparison choice was behaviorally measured by noting which of four folders each subject looked at in order to get an idea of how others had performed. Folders were labelled with the scores included in them: "Below 131", "131-170", "171-210", and "Above 210". The interviewer unobtrusively noticed which folder each subject chose to examine.

CHAPTER THREE
RESULTS

Thirty-four dependent variables were used to test the hypotheses. A sum of the two self-esteem scores was used as the measure of self-esteem. Attribution ratings included four percentage ratings of attribution to luck, the difficulty of the task (these two constitute environmental, external elements), effort and ability (these two constitute internal, self elements), and four seven-point scale ratings of the same elements in terms of their influence on performance. In addition, two composite scores were formed by adding the two environmental elements and dividing by the sum of the two self elements, separately for the two types of ratings (percentage and scale). Fourteen ratings of the interviewer served as evaluation of the source of feedback and there were three items rating the original assessment scale. Four questions addressed evaluation of the particular characteristic. Two social comparison choice measures were included. The first categorized each subject's choice as above, the same as or below their own score, while the second indicated whether they chose to look at a score above 201, between 171 and 201, between 131 and 171 or below 131.

Kolmogorov-Smirnoff tests of normality were conducted for each of the dependent variables. All but seven violated normality in terms of skewness, kurtosis or both at a statistically significant level. Consequently a multivariate analysis of variance could not be used as had

originally been planned. Multivariate analyses were necessary due to the large number of dependent variables. In most cases, each hypothesis concerned predictions about one or two independent variables and more than one dependent variable. Such a large number of statistical tests leads to altered probabilities of Type I and Type II errors. It is therefore advisable to compute a multivariate statistic before proceeding to consideration of univariate analyses.

Because of these violations of distribution assumptions, the Sarle Distribution-Free Multivariate Linear Hypothesis computer program was used. This package performs a multivariate analysis on a set of variables by assigning ranks and testing to see if treatments differ in their mean ranks. (However, it is important to note that we report mean ratings not mean ranks for each condition in the relevant tables.) In testing the hypotheses a significance level of .05 was used. Multivariate analyses and appropriate univariate analyses are given in the form of chi-square tests. Pairwise-comparisons testing for between-cell differences are provided by standard scores. In this study, significant pairwise-comparisons are those with Z-values > 1.96. A multivariate analysis including all four independent variables (blocking on sex of subject and on experimenter team) at once was not possible due to excessive storage requirements beyond the computer's capacity. Since a majority of the hypotheses concern an interaction between the feedback variable and one of the other independent variables, three analyses paired the feedback variable with nature of the characteristic, importance of the characteristic and credibility of the source of feedback. In addition, feedback was tested by itself with the other three independent variables (as well as sex of subject and experimenter team) as

blocks. Three of these analyses were significant: credibility/feedback, x^2 (102) = 140.8 $p < .01$, nature of the characteristic/feedback, x^2 (102) = 175.69, $p < .0001$ and importance of the characteristic/feedback, x^2 (102) = 232.8, $p < .0001$. The analysis for feedback was not significant. Results appropriate to each hypothesis will be presented in order.

Hypothesis I stated that feedback on an important characteristic has more influence on self-esteem than does feedback on an unimportant characteristic. This predicts an interaction between feedback and characteristic importance such that there is no difference between the two unimportant conditions on self-esteem, but there is a difference between the two important-characteristic conditions. The chi-square test was not significant; Hypothesis I was not supported.

Hypothesis II stated that more differentiation between attribution of causality to the self and environment following positive and negative feedback occurs when the characteristic is important than when it is unimportant. Of the ten univariate interactions, three reached statistical significance: luck rating, $\underline{x}^2$ (3) = 8.09, $p < .045$, luck percentage, $\underline{x}^2$ (3) = 8.87, $p < .05$, and effort percentage, $\underline{x}^2$ (3) = 12.86, $p < .001$. Mean ratings (not mean ranks) can be seen in Table 5. For all three analyses important-characteristic/positive-feedback differed from the two unimportant conditions, receiving more attribution to effort percentage and less to luck. In addition, for effort percentage, important-characteristic/negative feedback differed from the two unimportant conditions. The predicted relationship of a difference between the two important conditions but not between the two unimportant conditions did not occur; Hypothesis II was not supported.

Table 5
Mean Ratings of Attribution Items for Hypothesis II

Condition	Attribution Items		
	Luck	Luck Percentage	Effort Percentage
Important/ Positive	1.5ab	9.6cd	27.9ef
Unimportant/ Positive	2.0a	16.5c	21.2eg
Important/ Negative	1.6	11.1	29.8gh
Unimportant/ Negative	2.3b	20.5d	21.5fh

Note: Means with like subscripts are significantly different.

Hypothesis III predicted that subjects would be more likely to change their evaluation of an unimportant characteristic than of an important one. The importance-of-the-characteristic by feedback test was significant for all four items: "importance to me", x^2 (3) = 133.3, $p < .0001$, "importance to the general public", x^2 (3) = 99.0, $p < .0001$, "a friend would say I have this characteristic", x^2 (3) = 124.1, $p < .0001$, and "I would be interested in learning where I stood on this characteristic", x^2 (3) = 73.9, $p < .0001$. In addition, the three items rating the assessment scale for each subject's characteristic reached significance: "valid", x^2 (3) = 10.6, $p < .01$, "accurate", x^2 (3) = 18.3, $p < .0005$, and "useful", x^2 (3) = 12.4, $p < .006$. As can be seen in Table 6 there was a main effect for importance of the characteristic on the first 4 items with important characteristics being rated higher on all items. For each of the last three items the

Table 6
Mean Ratings for Hypothesis III

Condition	Evaluation of the Characteristic Items Evaluations of the Scale						
	Importance to me	Importance to public	Friend	Interested	Valid	Accurate	Useful
Important/ Positive	3.5ac	3.4eg	3.4ik	3.2mo	4.0q	3.9su	4.1vx
Unimportant/ Positive	1.9ad	2.0eh	1.5il	2.0mp	4.1	4.3	3.9
Important/ Negative	3.6bd	3.3fh	3.3jl	3.2np	3.7r	3.4tu	3.9w
Unimportant/ Negative	1.7bc	1.9fg	1.4jk	1.7no	3.1qr	3.1st	3.1vwx

Note: Means with like subscripts are significantly different.

two important conditions differed from the unimportant-characteristic/negative-feedback condition with the important characteristics receiving higher ratings. For "accurate" the important-characteristic/negative-feedback condition differed from the important-characteristic/positive-feedback condition and for "useful" the important-characteristic/positive-feedback condition differed from the unimportant-characteristic/negative-feedback condition. The predicted effect of a significant difference between the two unimportant conditions but not between the two important conditions did not occur. For "accurate" the opposite effect occurred. Hypothesis III was not supported.

The next hypothesis was concerned with whether feedback on an important characteristic more often leads to choice of a self-enhancing social comparison than does feedback on an unimportant characteristic (Hypothesis IV). The interaction was not significant for the first social comparison measure, but it was for the second, x^2 (3) = 8.0, $p < .05$. Table 7 shows that the two positive-feedback conditions differed from the unimportant-characteristic/negative-feedback condition.

Table 7
Mean Ratings for Second Social Comparison Measure (Hypothesis IV)

Condition	Mean Rating
Important/Positive	3.0a
Unimportant/Positive	2.8b
Important/Negative	2.6
Unimportant/Negative	2.4ab

Note: Means with like subscripts significantly differed.

This is not the predicted effect of a difference between the two important-characteristic conditions but not between the two unimportant-characteristic conditions. Hypothesis IV was not supported.

Turning from importance of the characteristic to nature of the characteristic (opinion or ability) the next hypothesis stated that feedback on opinions would more likely lead to choice of a similar social comparison under negative feedback than would feedback on abilities (Hypothesis V). This analysis was significant only for the second social comparison measure, x^3 (3) = 9.9, $p < .02$. As can be seen in Table 8, the two negative-feedback conditions differed from the ability/positive-feedback condition. This is the opposite of the prediction; Hypothesis V was not supported.

Table 8
Mean Ratings for Second Social Comparison Measure (Hypothesis V)

Condition	Mean Rating
Ability/Positive	3.1ab
Opinion/Positive	2.7
Ability/Negative	2.5a
Opinion/Negative	2.4b

Note: Means with like subscripts are significantly different. A higher number signifies choice of a comparison below the subject.

Hypothesis VI was not supported: the nature of the characteristic/feedback analysis was not significant for self-esteem as had been predicted.

The next hypothesis was that differentiation between attribution

of causality to self and environment is greater in the case of feedback on abilities than opinions (Hypothesis VII). Five of the ten dependent variables were significantly influenced by nature of the characteristic and feedback. All environmental elements were significant, as was ability percentage [task rating, x^2 (3) = 32.7, $p < .0001$, task percentage, x^2 (3) = 37.5, $p < .0001$, luck rating, x^2 (3) = 9.5, $p < .05$, luck percentage, x^2 (3) = 12.3, $p < .01$ and ability percentage, x^2 (3) = 9.4, $p < .05$]. For task rating positive-feedback/ability differed from negative-feedback/opinion, and both opinion conditions differed from negative-feedback/ability. For ability percentage the opposite effect from that predicted occurred in that there was a difference between the two opinion conditions but not between the two ability conditions. For luck rating the predicted effect was found in that the two ability conditions differed but the two opinion conditions did not. In this instance positive-feedback/ability was attributed less to luck than was negative-feedback/ability. In addition, positive-feedback/opinion differed from negative-feedback/ability. For luck percentage positive-feedback/ability differed from positive feedback/opinion and negative-feedback/ability differed from the two opinion conditions. Thus Hypothesis VII was supported for the luck rating item (see Table 9).

Hypotehsis VIII stated that subjects would be more likely to devalue opinions that abilities following feedback. Only one of the four items was significant: "friend would say I have this characteristic", x^2 (3) = 10.8, $p < .01$. Table 10 shows that ability/negative-feedback differed from ability/positive-feedback and from opinion/negative-feedback. In addition, two of the three ratings of the assessment scale reached statistical significance: "valid", x^2 (3) = 8.7, $p < .05$,

Table 9
Mean Ratings for Attribution Items (Hypothesis VII)

Condition	Attribution Items				
	Task	Task %	Luck	Luck %	Ability %
Positive/ Ability	3.1a	18.75de	2.1h	16.83j	33.9n
Positive/ Opinion	1.9b	10.8df	1.4i	9.3jk	45.0nop
Negative/ Ability	3.2bc	26.4fg	3.2hi	19.2km	33.4o
Negative/ Opinion	1.6ac	9.7eg	1.6	12.5m	33.4p

Note: Means with like subscripts are significantly different.

Table 10
Mean Ratings for Hypothesis VIII

Condition	Evaluation Items		
	Friend says I have	Valid	Accurate
Positive/ Ability	2.5a	4.0c	4.1eg
Positive/ Opinion	2.4	4.1d	4.1fh
Negative/ Ability	2.1ab	3.4cd	3.2ef
Negative/ Opinion	2.6b	3.4	3.3gh

Note: Means with like subscripts are significantly different.

and "accurate", x^2 (3) = 13.8, $p < .005$. On both items ability/negative-feedback differed from the two positive-feedback conditions, so this was the opposite of the predicted effect. For "accurate" ability/positive-feedback differed from opinion/negative-feedback and the two opinion conditions differed from each other. There was never a case where the two opinion conditions differed and the two ability conditions did not, so Hypothesis VIII was not supported.

The remaining hypotheses deal with the credibility of the source and the feedback received. It was predicted that feedback from a credible source would have more effect on self-esteem than would feedback from a less credible source (Hypothesis IX). The statistic did not approach significance, and this hypothesis was thus not supported.

Hypothesis X stated that a less credible source of feedback would more likely be devalued by subjects than would a more credible source after failure feedback. Four of the analyses between the credibility/feedback effect and the fourteen dependent variables were significant: 'how clear was the interviewer in giving you instructions and in explaining results?", x^2 (3) = 9.9, $p < .05$, "maturity", x^2 (3) = 10.8, $p < .05$, "experience", x^2 (3) = 35.99, $p < .0001$, and "trust", x^2 (3) = 9.97, $p < .05$. Table 11 shows the differences between means. In the first item credible-source/negative-feedback differed from the other three conditions, while credible-source/positive-feedback differed from all others on the "maturity" item. There was a main effect for source credibiiity on the "experience" item and for "trust" credible-source/negative differed from the two low-credibility conditions. None of the effects exhibited the predicted difference between the two low-credible-source conditions with no difference between the credible-source conditions; Hypothesis X was not supported.

Table 11
Mean Ratings for Evaluation of Source (Hypothesis X)

Condition	Evaluation Items			
	Clear in instructions	Mature	Experienced	Trustworthiness
Credible/ Positive	5.3a	5.0def	4.4gh	4.3
Credible/ Negative	4.6abc	4.3d	4.4ij	3.9km
Low-Credible/ Positive	5.4b	4.3e	3.0gi	4.4k
Low-credible/ Negative	5.3c	4.4f	3.0hj	4.5m

Note: Means with like subscripts are significantly different.

Hypothesis XI predicted that differential attribution of positive feedback to self and negative feedback to environment would be more likely for a high credible source of feedback than for a low credible source. The analysis was not significant for any of the 10 attribution variables; Hypothesis XI was not supported.

The overall multivariate analysis with feedback as the independent variable did not reach significance, which precluded consulting the appropriate univariate analyses for Hypotheses XII, XIII, XIV, XV, XVI and XVII. Therefore none of these hypotheses was supported.

Three separate nonparametric multivariate analyses with order, version of the characteristic and sex of subject each as independent variable showed no influence of these variables on subject responses. It did not make a difference what order subjects completed the dependent measure forms, not did the 12 versions of the 4 cells formed by

the nature-of-the-characteristic/importance-of-the-characteristic interaction differentially affect behavior within cells. In addition, males and females did not show different behavior in this study. However, the analysis for experimenter team showed that experimenter team did significantly influence subject behavior, x^2 (34) = 69.54, $p < .0001$. Seven of the evaluations of the experimenter yielded significantly different ratings for the two interviewers. In all instances one interviewer was rated more negatively than the other. The variables that differentiated were: "warmth", $x^2(1) = 26.6$, $p < .0001$, "sensitivity", x^2 (1) = 12.93, $p < .0005$, "openness", x^2 (1) = 6.76, $p < .01$, "personableness", x^2 (1) = 10.46, $p < .005$, "how did the interviewer conduct the session", x^2 (1) = 8.7, $p < .005$, "interviewer's clarity in giving instructions and in explaining results", x^2 (1) = 4.95, $p < .05$ and "is the interviewer a good person for the job", x^2 (1) = 18.55, $p < .0001$. In addition, the two social comparison measures were significantly different for the two interviewers, first measure, x^2 (1) = 16.1, $p < .0001$, and second measure, x^2 (1) = 4.0, $p < .05$. This difference is partly due to the fact that one interviewer had more people not make a social comparison choice. Experimenter differences thus affected subjects responses on one variable administered in the interviewer's presence and on some of the items specifically rating her. Experimenter differences thus appear to be due to the two interviewers and not due to the other member of each team. Also, experimenter differences were not very widespread in influencing subject behavior.

The next set of analyses addressed the issue of the presence of multiple response modes. In essence subjects had four general self-enhancement variables provided to them, and a measure of self-esteem.

Analyses have showed that order of presentation had no effect on the dependent measures. Another question investigated simultaneous versus alternative use of responses, and asked whether subjects were more likely to use one response rather than another, or if they used one were they less likely to use any other. Previous research in other areas suggests ways to address this question. Pepitone and Wilpizeski (1960) computed correlations among responses under each condition to see if responses produced by experimental conditions were related to each other within the same individual. Steiner and Rogers (1963) stated that if there are low or negative correlations between response variables, this is an indication of use of alternative measures. Correlation coefficients were computed between dependent measures for positive feedback, negative feedback, important characteristic, unimportant characteristic, abilities, opinions, high credibility and low credibility. There are correlations between 34 dependent variables for each of these analyses. For each analysis a count was taken of the number of positive significant correlations between separate dependent measures. That is, we did not include correlations between related dependent measures such as the 14 ratings of the source of feedback or between the 10 attribution scores. There are a total of 830 such correlations between separate dependent measures. Contingency tables were constructed between pairs of an independent variable and the number of significant-positive and insignificant-and-significant-negative correlations. Chi-square tests were then computed. Results of such an analysis must be viewed with considerable caution given the questionable validity of this particular set of tests. Feedback, x^2 (1) = 20.26, $p < .005$ and nature of the characteristic, x^2 (1) = 7.95, $p < .005$ were significant

while the other two analyses were not. For these two independent variables there was some indication of use of alternative response measures, specifically under negative feedback conditions and for opinion characteristics (see Table 12).

Steiner and Rogers (1963) used another analysis in an attempt to address the question of use of alternative responses. Subject ranks on one response were compared with the sum of their ranks on the other responses. This was done in turn for each dependent measure compared to the sum of all others. A similar analysis was conducted on the present data, but because it would have been too cumbersome to use all 34 dependent variables, a representative for each of the five major dependent measures (social comparison, evaluation of the characteristic, evaluation of the source of feedback, self-esteem and attribution of causality) was used. The first social comparison measure was used because it is the more valid of the two measures, and the sum of the self-esteem scored constituted the self-esteem measure. For evaluation of the source 2 items with the highest correlations with all others were summed and used (competent and sensitive). "Importance to me" correlated best with the items evaluating the characteristic so it was chosen and the composite attribution scale rating was chosen for the same reason. After getting the ranks, subjects were dichotomized at the median on each single variable and also on the sum of all others. A chi-square test was conducted to determine if people who are above the median on one measure are below the median on the sum of the other measures, and vice versa. No chi-square test reached significance, which means that subjects were not more likely to be below the median on the sum of the ranks of four measures if they were above the median

Table 12
Correlations > .36 by Condition and Related Contingency Tables

Condition	Items	Condition	Items
Ability	Clear & Valid .46	Opinion	Clarity & Valid .46
	Clear & Useful .37		Clarity & Accurate .37
	Good for job & Valid .37		Clarity & Useful .40
	Insight & Valid .38		Useful & Interested in score .51
	Intelligence & Valid .42	Important	Intelligence & Valid .40
	Trust & Valid .44		Intelligence & Useful .40
	Personableness & Valid .37		Valid & Interested in score .37
	Open & Valid .42		Useful & Interested in score .40
	Trust & Friend .38	Negative	Clear & Valid .38
	Trust & Interested in score .40		Clarity & Valid .41
Positive	Clear & Valid .37		Valid & Interested in score .44
	Trust & Accurate .43		Useful & Important to me .43
	Trust & Valid .40		Useful & Interested in score .47
Credible	Clear & Valid .42	Low Credibility	Open & Valid .42
	Clear & Useful .42		Personableness & Valid .37
	Clarity & Valid .42		Useful & Important to me .41
	Clarity & Accurate .40		Useful & Interested in score .47
	Intelligence & Valid .38		
	Intelligence & Accurate .37		
	Intelligence & Useful .39		
	Trust & Accurate .37		

Table 12 (Continued)
Contingency Tables

S = Significant positive correlations

N = Not significant, and significant negative correlations

	S	N		S	N
Positive	140	690	Ability	144	686
Negative	78	752	Opinion	103	727
	S	N		S	N
Credible	134	696	Important	107	723
Low credible	114	716	Unimportant	121	709

on the fifth measure (see Table 13 for the contingency tables). This finding provides no evidence of alternative use of response measures.

Table 13
Contingency Tables for Median Ranks

Social Comparison

	Above on Sum	Below on Sum
Above on single	53	65
Below on single	38	27
Blank	5	4

Self-esteem

	Above	Below
Above on single	51	44
Below on single	45	52

Source Evaluation

	Above	Below
Above on single	47	41
Below on single	49	55

Characteristic Evaluation

	Above	Below
Above on single	50	55
Below on single	45	40
Blank	1	1

Attribution

	Above	Below
Above on single	44	53
Below on single	50	38
Blank	2	5

CHAPTER FOUR
DISCUSSION

The central foci of this chapter are discussions of the nature of the support for self-enhancement theory and social comparison theory. Then we offer some interpretation of the results and attempt to explain why the hypotheses in general were not supported.

The first point relevant to self-enhancement theory is that none of the hypotheses concerned with self-esteem were supported, nor in fact were there any influences on self-esteem. This could mean at least two things. First, if self-enhancement had been successfully achieved then self-esteem would show no effect. This is related to Hypothesis XVII and stems from the notion that self-enhancement responses are preferable in an evaluation situation to loss of self-esteem. Given the lack of support for almost all self-enhancement hypotheses this notion is unlikely. The second possible reason for no self-esteem effects is that the feedback variable may have had no effect, or negative feedback was not enough of a threat to self-concept and thus did not effect self-esteem. The manipulation check on the feedback variable suggests that it is unlikely that positive and negative feedback were not perceived differently. There were significant differences between pilot subjects' reactions to the two forms of feedback. Perhaps this difference was not strong enough to carry through into subjects' reactions to the feedback. The next place to look is the set of results relating to evaluation. How did positive and negative feedback

influence subjects? The insignificant multivariate analysis for feedback shows that there was no main effect due to that variable. In the paired-comparison test of the two-factor analyses there were a few, though not many, influences of feedback on the dependent variables. Feedback affected social comparison in one case where positive and negative ability conditions had different means, with positive subjects more likely to choose a folder with a low number. This effect shows some self-enhancement attempt, though it is opposite of the prediction of an effect on opinions but not on abilities.

Turning to attributions of causality, we see that there were several instances where feedback had effects. Positive feedback on important and unimportant characteristics had different effects on ratings of luck, luck percentage, and effort percentage, while negative feedback only affected unimportant versus characteristics on effort percentage. This does not suggest self-enhancement; one would expect negative feedback on an important characteristic to lead to defensive responses and it did not.

Looking at feedback and the nature of the characteristic, the clearest effect was on ratings of luck and ability percentage. In the former, the self-enhancement hypothesis was supported in that positive and negative feedback on abilities, but not on opinions, significantly influenced attributions to luck. For ability percentage the opposite effect occurred, but this merely shows self-enhancing attributions on opinions rather than abilities. However, these two instances out of ten possible attribution measures with several interactions is not overwhelming evidence.

On evaluation of the characteristic, negative feedback on imporant

and unimportant characteristics differentially affected ratings of validity, accuracy and usefulness of the scale, with unimportant characteristics receiving a lower rating. That unimportant-characteristic/positive-feedback did not receive lower ratings may be due to the phenomenon of raising evaluation of an attribute at which one succeeds. Negative and positive feedback on important characteristic led to different ratings on accuracy, but this was opposite of the prediction of a difference for feedback on unimportant and not important characteristics. The underlying assumption is that it is harder to re-evaluate important characteristics, but perhaps it is more crucial to re-evaluate important characteristics after negative feedback than to re-evaluate unimportant ones after success. This reflects a saving-oneself-from-implications-of-failure-on-important-characteristics, rather than capitalization-on-success-on-unimportant-characteristics phenomenon. The other evaluation-of-the-characteristic results suggest that ability and opinion operate opposite of their hypothesized effects in that in two cases positive and negative ability were different but not opinions. For the accuracy rating both opinions and abilities had different reactions to positive and negative feedback. Thus feedback does influence evaluation of the characteristic.

Finally, there is limited evidence for feedback affecting evaluation of the source. On two items there was a difference between the two credibility conditions but not between the two low-credibility conditions. This parallels the case of the greater effect of feedback on important but not unimportant characteristics in evaluation of the characteristic. Here again, though it was hypothesized to be harder to devalue high credible persons, it is more important to do so after

negative feedback than to re-evaluate a low credible person after positive feedback.

Thus there are some cases where feedback led to self-enhancing responses in that subjects behaved ego-defensively. Most of these effects were opposite to the present hypotheses, but nevertheless they do show effects of feedback and are examples of attempts at self-aggrandizement.

These self-enhancement instances show some other important things. First of all, the relationship between perception of feedback on abilities versus opinions is different than hypothesized. Ability feedback seems to be more important to subjects than opinion feedback. This may reflect greater concern for standing on abilities than for standing on opinions. It is also possible that in this particular setting the ability feedback was more believable than the opinion feedback. However, in choosing a folder of scales to consult, an analysis of the nature of the characteristic alone showed that ability and opinion characteristics did significantly differ, with subjects in ability conditions being less likely to choose to see scores below their own. The unidirectional drive upwards may lead subjects to the desire to see what a better performance is like.

Another important point is that some of the results did not support assumptions that it is cognitively harder to re-evaluate important characteristics and credible persons. Though these assumptions may be true, other factors such as the need to minimize failure, may be more important.

We now turn to the evidence relating to Festinger's (1954a) social comparison theory. Since several response modes were included in this

study, only one of which (social comparison choice) is included in his theory, only a small part of the results are pertinent. Furthermore, on the first (and more valid) social comparison measure there was no evidence for the hypothesized effects. Results on the second, objective choice measure showed that subjects in positive-feedback conditions were more likely to choose an objectively high score (not necessarily higher than their own) than were subjects in the unimportant-characteristic/negative-feedback condition. And ability subjects receiving positive feedback were more likely to choose an objectively high score (not necessarily higher than their own score) than were subjects in the two negative-feedback conditions. This is not evidence for choice of a similar comparison. But these results may serve as an example of the desire for social consensus: being unsure, those subjects in opinion conditions were more likely to look at a score similar to or below their own, perhaps in an attempt to gain some validation for their own position. And subjects in ability conditions may have wanted to see what a good performance was like.

Turning to more indirect issues, there are other results that bear on some of Festinger's ideas. The ability and opinion differences cited above can be seen as support for the unidirectional drive upward for abilities. Furthermore, negative feedback on abilities seemed to be of more import to subjects than feedback on opinions. This point shows that people are not always concerned with opinions. Though Festinger never states it in his hypotheses, presumably some opinions are of greater concern to people than others. The importance variable did not have much influence on social comparison however.

Given that there was evidence for ego-defensive responses the

present study has shown that subjects are not always interested in accepting accurate appraisal of themselves. This is not to imply that there is no drive for accuracy (in some circumstances), but it shows that self-enhancement is another possible response rather than accurate assessment.

However, the evidence for self-enhancement was limited, and furthermore only one of the proposed hypotheses received any support. There are a number of possible explanations for this. It may be that the independent variables do not operate as hypothesized. There was some suggestion that present assumptions about the effects of source credibility and ability or opinion importance on the cognitive mechanism of devaluation were not accurate. This explains some of the failure to support the experimental hypotheses. In addition there is a series of possibilities for which there is not much data. This relates to methodological problems in that subjects may not have perceived the situation as the experimenter presumed. As previously noted (page 25) methodological issues may be used to explain failures in other studies of self-enhancement effects. Symonds (1951, pp. 96-97) notes that

> situations apparently similar to an outside observer may not offer the same intensity of threat of failure to a given individual. It all depends on how he values that activity and whether his performance in it is interpreted by him as important.

Though the pilot test showed that the importance variable was manipulated successfully, the total situation as experienced by the subject may not have been significant. This is an age-old problem in experimentation with humans, especially in reactive settings such as the psychology laboratory. The experimenter often assumes that the subject in the

laboratory views the situation as the experimenter constructed it. In fact, the situation is often seen very differently by the subjects and they may not place the same degree of importance and worth to the scene as the experimenter does. Receiving feedback on one's performance on ability and opinion scales as part of a national research project may not matter much to students, especially if the nature of the feedback is somewhat vague and nebulous. In fact, several students mentioned wanting to see their scale to note which responses had led to the evaluation. In addition, it is possible that subjects did not believe the cover story, although we have no evidence bearing on this.

Symonds (1951, p. 176) again makes a valid point concerning this issue

> It is difficult to think of the problem of level of aspiration wholly from the vantage point of the experimental studies...because these studies are defined in terms of the limitations of the experimental laboratory while aspirations penetrate every corner of living.

This also applied to the process of self-enhancement. For certain variables and certain realms of experience, the experimental laboratory may not offer the opportunity to realistically test given principles of human behavior. For areas as sensitive as self-concept and responses to evaluation of oneself, the laboratory presents some drawbacks in being removed from individuals' daily lives and probably not being perceived as the experimenter assumes it is being perceived. This is not to say that self-evaluation cannot be studied in the laboratory; clearly many good investigations have been conducted in such settings. But experimenters must be particularly aware of the attendant difficulties

in constructing the situation and assuming a certain reaction on the individual's part.

The present study attempted to preclude some methodological problems. First, the pilot testing of manipulations prior to experimentation tested for operational differences in independent variables. Also we included both sexes and more than one set of experimenters in an attempt to increase generalizability and test for differences. In the present analyses it was possible to block on both these variables, and see the effects over and above unintended effects of experimenters and sex of subject. This notion applied as well to multiple versions of independent variables, such as the use of 12 characteristics to represent the cells of the importance and nature of the characteristic interaction. The fact that there was no effect due to the different characteristics in the same cell increases confidence that the effects were not due to a particular operationalization, as may often be the case in research that does not include multiple representation.

In addition to the point that both sexes, more than one set of experimenters and multiple versions of independent variables be used in future, investigators in this area must be particularly careful about the setting used. It is important for the demonstration of self-enhancing behaviors that subjects take the situation seriously and feel a real threat to self-esteem in the negative-feedback conditions. Perhaps use of existent situations will promote this. For instance, rather than setting up a cover story for an experiment, a researcher might use the classroom situation in order to test reactions to feedback. The increase in mundane and experimental realism raises questions about the ethics of such a study and it would be particularly incumbent

on such a researcher that she or he safeguard subject feelings and avoid long-term negative effects. But within ethical limits such "natural" situations offer promise in the study of self-enhancement.

APPENDICES

APPENDIX A
PRE-EXPERIMENTAL RATINGS OF THE CHARACTERISTICS

Rating Scales

1. For the following list of objects which people might have an opinion about, please rate how important you think it is for someone to have an opinion on that object by placing the appropriate number in the first blank.

   1 = Very unimportant
   2 = Unimportant
   3 = Somewhat unimportant
   4 = Somewhat important
   5 = Important
   6 = Very important

Politics____//____
Dating____//____
Economics____//____
Religion____//____
Child-rearing____//____
Probation officers____//____
Suicide____//____
Military____//____
Evolution____//____
Physical fitness____//____
Divorce____//____
Education____//____
Farming____//____
Campaign regulations____//____
Academic freedom____//____
Birth control____//____
University of Fla.____//____
Sex education____//____
Mental institutions____//____
Socialized medicine____//____
Censorship____//____
Union strikes____//____
Capital punishment____//____
Welfare____//____
Death____//____
Justice____//____
Feminism____//____

Communism____//____
Birthday parties____//____
Prostitution____//____
Platform shoes____//____
Malpractice insurance____//____
Team competition____//____
Disabled people____//____
Ethnic groups____//____
Teaching as a career____//____
China dishes____//____
House pets____//____
Antique cars____//____
Self-reliance____//____
Patriotism____//____
Gambling____//____
Radial tires____//____
Sociologists____//____
Conservation____//____
Rotary engines____//____
Pollution control____//____
Food stamps____//____
Government____//____
Television violence____//____
Plants____//____
Cleanliness____//____
Public television____//____
Wearing t-shirts in public____//____

2. Now go back over the list and in the second blank rate how interested you would be in finding out if your opinion on the issue was similar to that of experts who knew a lot about the issue.

   A = Very uninterested
   B = Uninterested
   C = Somewhat uninterested
   D = Somewhat interested
   E = Interested
   F = Very interested

Rating Scales

1. For the following list of abilities please rate how important it is for you to be good by placing the appropriate number in the first blank.

   1 = Very unimportant
   2 = Unimportant
   3 = Somewhat unimportant
   4 = Somewhat important
   5 = Important
   6 = Very important

Social skilss____//____
Verbal ability____//____
Logic____//____
Make analogies____//____
Change flat tire____//____
Physical defense____//____
Scholarship____//____
Resist temptation____//____
Organization____//____
Persistance____//____
Athletics____//____
Memorization____//____
Painting____//____
Clear thinking____//____
Persuading others____//____
Reading comprehension____//____
Manual dexterity____//____
Perceptual tasks____//____
Crossword puzzles____//____
Social interaction____//____
Music composition____//____
Musical playing____//____
Public speaking____//____

Defending beliefs____//____
Doing laundry____//____
Cooking____//____
Driving a car____//____
Typing fast____//____
Negotiating traffic____//____
Arranging flowers____//____
Building cupboards____//____
Designing buildings____//____
Solving interpersonal problems____//____
Making others feel at ease____//____
Having a good party____//____
Balancing a checkbook____//____
Tuning a car____//____
Sewing clothes____//____
Doing well under pressure____//____
Standing up for your rights____//____
Dancing____//____
Fine tuning a color TV____//____
Pursuit rotor ability____//____
Fantasizing____//____
Decision-making____//____
Holding your liquor____//____

2. Now go back over the list and in the second blank rate how interested you would be in finding out where you placed on a measure of each ability.

   A = Very uninterested
   B = Uninterested
   C = Somewhat uninterested
   D = Somewhat interested
   E = Interested
   F = Very interested

APPENDIX B
CONTENTS OF BOOKLET AT SESSION I

Cover letter, background information sheet and
the twelve assessment scales

Institute for Assessment Research

Curtis Foundation
New York, New York 10022

Academic Year
1975-1976

Dear Participant,

You are taking part in a large nation-wide study being conducted by the Institute for Assessment Research, a department under the auspices of the Curtis Foundation. Our project involves a number of different research questions, such as:

1. How well can we use demographic data to predict performance on various ability and opinion assessment procedures?
2. How do various segments of the population differ in their performance on our scales?
3. What assessment procedures are the most practical for widespread use?
4. How useful are assessment procedures for the various organizations and institutions in our society?

These are only a few of the topics we are studying over a period of several years. I personally would like to thank you for your part in this research. It is through the cooperation and honest responses of people like you that we can answer important questions about human behavior.

Thank-you again for your part in this project.

With warm regards,

D.W. Bates
National Executive Director

DWB:sk

Student Form B

Background Information

Please answer the following questions as best you can. This information is important to use in the research project. The forms you fill out will be anonymous, except for the first phase when you meet individually with one of our interviewers. For that purpose, please make sure your name is on the first page of this booklet. That page will be omitted when we conduct the analyses.

1. Sex: Male Female

2. Age: _____

3. Date of Birth: _____

4. Nationality: _____

5. Grade Level: Freshman Sophomore Junior Senior Graduate Student

6. Course major (if declared): _____

7. Preference for Course Major (if undeclared): _____

8. College or University you attend: _____

9. State of your legal Residence: _____

10. Place of Birth: _____

11. Religion: _____

12. Socio-economic Status: _____

13. Parents' Occupation: Father: _____

Mother: _____

14. Political Affiliation or Preference: _____

15. Marital Status: Single Married Divorced Separated Widowed

Now turn the page and you will find an assessment scale for one of the attributes included in our study. Please answer the questions as best you can. Sometime in the future you will be scheduled to meet with one of our interviewers who will inform you of your placement on the scale you complete.

Please make sure your phone number is near your name on the from page so that you can be contacted for the individual session.
Thank-you for your cooperation in this project.

Reading Comprehension

Read the paragraphs below and answer the questions as best you can.

1. Advertising has changed remarkably in recent years. Its methods used to be quite simple and crude as compared with the highly organized departments and carefully planned advertising campaigns which feature modern business. For example, I remember the leading merchant in a little town out West. His store stood on the town's busiest corner, where his 3 sons helped him sell drygoods. Every Saturday noon in winter he used to get up on the roof of his store and throw a new overcoat into the street. The crowd scrambled for it. That was advertising in those days. Incidentally, one of his sons was supposed to be quick enough to grab the coat and rush it back to the shelves to be thrown down again the next Saturday. It was a bad day for the boys if they let an outsider get away with that decoy coat!

I. The western merchant is portrayed as (1) opposed to advertising, (2) a miserly money-grabber, (3) a typical advertiser of his day, (4) a man with modern business ideas, (5) a harsh father

II. Indicate whether these statements are True (+), False (-), or unrelated (0)

1. Advertising methods have changed considerably. _____
2. Modern advertising is highly organized. _____
3. The western merchant used modern advertising methods. _____
4. The merchant gave away a coat each Saturday in the year. _____
5. Giving away merchandise is not good advertising. _____
6. One of the merchant's sons tried to recover the coat. _____

2. "I have considered the structure of all volant animals, and find the folding continuity of the bat's wings the most easily accommodated to the human form. Upon this model I shall begin my task tomorrow, and in a year expect to tower into the air beyond the malice or pursuit of man. But I will work only on this condition, that the art shall not be divulged, and that you shall not require me to make wings for any but ourselves."

"Why," said Rasselas, "should you envy others so great an advantage? All skill ought to be exerted for the universal good; every man has owed much to others, and ought to repay the kindness he has received."

"If men were all virtuous," returned the artist, "I should with great alacrity teach them all to fly. But what would be the security of the good, if the bad could at pleasure invade them from the sky? Against an army sailing through the clouds neither wall nor mountains nor seas could afford any security. A flight of northern savages might hover in the wind, and light at once with irresistible violence upon the capital of a fruitful region that was rolling under them."

1. The author of the passage expresses a philosophy which: (a) is currently applicable, (b) expresses optimism, (c) was valid only in his day, (d) reminds one of a military strategist, (e) is similar to existentialism. _____
2. In this selection the author is using the literary device of (a) onomatopoeia, (b) flashback, (c) symbolism, (d) alliteration, (e) irony. _____
3. Worldwide peace, according to the passage, could come about by (a) arming for defense, (b) eliminating evil tendencies, (c) resorting to strategem, (d) establishing firm controls, (e) letting intellectuals govern. _____

4. The attitude of the person giving his point of view is one of: (a) optimism, (b) sprightliness, (c) distrust, (d) innocence, (e) sarcasm. _____

5. The person whom Rasselas is speaking is: (a) a tailor, (b) a gambler, (c) a bat, (d) an artist, (e) a biologist. _____

6. The word "volant", according to the context, means: (a) crawling, (b) flying, (c) violent, (d) carnivorous, (e) ferocious. _____

Ability to Think Clearly

Read the items carefully and answer as best you can.

1. Given: Either the queen will not punish the prince or if war is not inevitable, then the prince's lover will not be jealous; but if the jealousy of the prince's lover implies that war is inevitable, the king will be angry and if the queen's punishing the prince implies that the king is angry, then the king is bald, but he's not bald.
   (a) Will the queen punish the prince?
   (b) Will the king be angry?
2. Given: Albert, Bill, Charlie and David are storekeepers and that either Albert of Bill must go shopping every day, but never on the same day, and that when Albert stays home, Charlie always goes shopping, and when Bill stays home, David always goes shopping.
   (a) Can David stay home when Charlie stays home?
   (b) When David stays home, does Charlie go shopping?
   (c) If Bill goes shopping, can Charlie stay home?
   (d) If David does not go shopping, can Albert still go shopping?
3. Given that "Countries receiving U.S. aid are never poor" is true, what do you know about the following? (True = T, False = F, Unrelated = U). Circle one.

a. Countries failing to receive U.S. aid are never rich.	T	F	U
b. Few countries fail to receive U.S. aid.	T	F	U
c. No rich country receives U.S. aid.	T	F	U
d. Few countries receiving U.S. aid are rich.	T	F	U
e. Countries failing to receive U.S. aid are always rich.	T	F	U
f. No poor country fails to receive U.S. aid.	T	F	U
g. Every rich country receives U.S. aid.	T	F	U
h. A few poor countries receive U.S. aid.	T	F	U

In each of the following sets of propositions, assume A is true; what then do you know about B?

4.	A. Few hedgehogs read the New York Times.			
	B. A few hedgehogs read the New York Times.	T	F	U
5.	A. Every Dodo loves to run a caucus-race.			
	B. Few Dodos love to run a caucus-race.	T	F	U
6.	A. All that glitters is not gold.			
	B. Some glittering objects are gold.	T	F	U
7.	A. All that sparkles is not a diamond.			
	B. Only diamonds sparkle.	T	F	U

Given the first proposition as true, what can you determine about each of the following?

7. At least certain underdeveloped nations will eventually become developed.

a. At least a few underdeveloped nations will not become developed.	T	F	U
b. Underdeveloped nations never will become developed.	T	F	U
c. Eventually all nations will become developed.	T	F	U

8. All governments are not neutral.

a. Few governments are neutral.	T	F	U
b. Every government is neutral.	T	F	U
c. No government is netural.	T	F	U

Are the following arguments deductive or inductive?

10. The Republicans are going to win the November election, Mr. Gallup reported. Of those interviewed who were not undecided 59% said they plan to vote Republican.
11. Everybody will agree that swimming is the most healthful sport, for it exercises more muscles of one's body than any other sport and this is of course more healthful.
12. The Yankees have the odds on the pennant again this year, for they've won it more than any other club.
13. It's going to rain. Listen to the thunder! Every time I've heard it thunder like that it rained.

Decision-Making Ability

Answer the following questions by picking what you think is the best response.

1. For some time now in a certain family a child about 11 years old has been developing poor work habits in regard to school work. The child leaves homework until the last minute and often does not get it done or does it carelessly. What should the parents do?
   a. Ignore it; do nothing about it.
   b. Help the child with the homework.
   c. Punish the child if the homework is not completed.
   d. Explain the importance of developing good work habits.
   e. Set a definite time each day for the child to do homework.
   f. Check each day to make sure the child has done the work.
2. If your oven caught on fire what would you do?
   a. Close the oven door and wait for the fire to burn out.
   b. Pour baking soda on the fire.
   c. Call the fire department.
   d. Use a fire extinguisher.
3. If alternative A had a 20% probability of giving you a payoff of $100, alternative B had a 50% probability of giving you a $40 payoff, alternative C had a 80% probability of giving you a $25 payoff and alternative D had a 70% probability of giving you a $30 payoff, which alternative would you choose?
   a. A
   b. B
   c. C
   d. D
   e. None of them.
4. When you face an approach-approach conflict what do you do?
   a. Pick the alternative that has the surest benefits.
   b. List the pros and cons of each alternative.
   c. Flip a coin to choose one alternative.
   d. Wait for more information.
   e. Pick the alternative that has the longterm payoff.
   f. Pick the alternative that is best at the moment.
5. A person nears their home and sees that the front door is ajar and the front room seems to be in disarray. The nearest neighbor is ½ mile away. What should the person do?
   a. Carefully enter the house and get to the phone to call someone.
   b. Determine whether anyone is in the house.
   c. Run to the neighbor's and phone the police.
   d. Call out, "Is anyone there?".
   e. Sneak behind the bushes and listen for 5 minutes.
6. For some time now in a certain family a child about 11 years old has been stealing things from a local department store. No one else knows about it but the parents. What should they do?
   a. Explain the results of crime and point out that "crime doesn't pay".
   b. Deprive the child of TV and movies for a month.
   c. Threaten the child with telling the police if it happens again.
   d. Ignore it; do nothing about the situation.
   e. Spend more time with the child and do more things together.
   f. Make the child take back the stolen things and pay for what cannot be returned.

7. You are having a hard time deciding whether to go to college A or college B. What would you do?
   a. Pick the one where you would get the best education.
   b. Pick the one where you would be happiest.
   c. Flip a coin to choose one alternative.
   d. Go where your parents want you to go.
8. If a friend wanted advice on an interpersonal problem, what would you do?
   a. Listen carefully, but make no declarative statement.
   b. Tell what you honestly think about the situation.
   c. Say that you would rather not be involved.
   d. Listen carefully and say what you think the person wants to hear.
   e. Listen carefully and help the person sort out his/her thoughts.
   f. Try to change the subject.
9. What do you think is the most important principle in decision-making?
   a. Act as fast as the situation warrants.
   b. Decide, and don't look back.
   c. Act rationally.
   d. Imagine all possible outcomes and choose the one that seems right.
   e. Consider all the pros and cons.
   f. If it feels right, do it.
10. In cohesive groups, which are good ways to insure effective thinking and decision-making?
   a. Playing the devil's advocate.
   b. Listing the pros and cons.
   c. Taking the majority decision.
   d. Critically evaluating all ideas.
   e. Acting rationally.
   f. Consulting outside advisors.
11. A person has been invited to go somewhere with a person they are not very fond of and they accept. Later a person that they really would like to know asks them somewhere for the same time. What should they do?
   a. Decline the second offer.
   b. Accept the second offer and tell the first person they are sick.
   c. Accept the second offer and explain the situation to the first person.
   d. Decline the second offer, break the first date and stay home.
   e. Decline the second offer and invite the person for another time.
12. As you are driving along the deserted road you come upon a car that has hit a tree. The nearest phone is 5 miles away. What should you do?
   a. Stop the car, get out and try to help any injured persons.
   b. Drive ahead to the phone and call the police.
   c. Put any injured persons in your car and get them to a doctor.
   d. Get out to help, and set up a signal to any cars that might pass.
13. You are a senior in college and have been offered a job that would provide ample salary and benefits but you really want to study Egyptian history in graduate school. What should you do?
   a. Take the job and put off graduate school until later.
   b. Do what your heart desires and go to graduate school.
   c. Take the job and concentrate on advancement rather then a useless degree.

d. Tell your employer you want to leave the job in two years in order to get the graduate degree.
e. Wait to see if you get graduate funding.

Education Scale

Read each item carefully and put the number next to it that expresses your feeling about the statement. Be sure to answer each item.

1 = Strongly Disagree
2 = Disagree
3 = Undecided
4 = Agree
5 = Strongly Agree

_____ 1. A person can learn more by working four years than by going to high school.
_____ 2. The more education a person has the better he or she is able to enjoy.
_____ 3. Education is no help in getting a job today.
_____ 4. A high school education is worth all the time and effort it requires.
_____ 5. Our schools encourage an individual to think for himself or herself.
_____ 6. Solution of the world's problems will come through education.
_____ 7. Savings spent on education are wisely invested.
_____ 8. Parents should not be compelled to send their children to school.
_____ 9. Education is more valuable than most people think.
_____ 10. Education has failed unless it has helped people to understand and express their own feelings and experiences.
_____ 11. How students feel about what they learn is as important as what they learn.
_____ 12. The goals of education should be dictated by children's needs and interests, as well as by the larger demands of society.
_____ 13. Teachers should have academic freedom---freedom to teach what they think is right and best.
_____ 14. Learning is experimental; the child should be taught to test alternatives before accepting any of them.
_____ 15. The true value of education is so arranging learning that children gradually build up a store house of knowledge that they can use in the future.
_____ 16. Education and educational institutions must be sources of new social ideas; education must be a social program undergoing continual reconstruction.
_____ 17. Certain facts and knowledge are necessary for the study of all subjects and these facts do not change very much.
_____ 18. Pupils should study only subjects that they feel they will need in later life.
_____ 19. All children should be encouraged to aim at the highest academic goals.
_____ 20. A person's experiences have more to do with his or her learning ability than does innate intelligence.
_____ 21. An activity, to be educationally valuable, should train reasoning and memory in general.
_____ 22. It is more important for children to have faith in themselves than for them to be obedient.

Attitude toward Self-reliance

This scale contains a list of items such as this:

I think children should be able to brush their teeth daily without being told to do so by the age of _____.

We want you to read an item, then think of children who are neigher high nor low in intelligence, physical development, etc., but near the average. Then mark in the blank the age at which anyone of these "near-average" children should be able to perform this task.

For example, if you think that the average child should be able to brush his or her teeth daily without being told to do so by the age of five years, place the figure five in the blank, like this:

I think children should be able to brush their teeth daily without being told to do so by the age of __5__.

In some cases you may wish to put down the age in months rather than years. In such cases write "mos." after the figure, like this: 2 mos.

We want your <u>own</u> opinion on each item.

1. I believe that children can be taught to make a good selection of their own meal when dining in a hotel or restaurant by the age of _____.
2. I believe that children should be able to wash and dry the dishes after a family meal by the age of _____.
3. I feel that children should be able to prepare a simple family dinner without assistance after it has been planned by a parent by the age of _____.
4. (Disregard legal age when marking this item.) I feel that children should be able to drive the family car when adults are in the car by the age of _____.
5. I think that children should be able to take responsibility for keeping at least one room clean throughout the week (assuming they have help in one regular weekly cleaning) by the age of _____.
6. I think that children can be left in charge of the household with younger members of the family (not more than three children and none younger than three years and assuming at least one parent is home at night) by the age of _____.
7. I believe that children should be taught to buy their own clothing without help from an adult by the age of _____.
8. I think that children should be taught how to obtain their own answers to their questions such as "How is silk made?" and "Where does rubber come from?" by the age of _____.
9. I believe that children should be able to take the entire responsibility for their homework (i.e., complete it without parental reminder or supervision) by the age of _____.
10. I think children are capable of taking entire care of their hair (i.e., wash, comb, decide how it is to be worn, when it is to be cut, etc.) by the age of _____.
11. I feel that children should be able to make their own bed daily (excepting when sheets are changed) without help by the age of _____.
12. I feel that children should be able to plan and prepare a simple family dinner (e.g., meat, potatoes, vegetable and dessert) by the age of _____.

13. I think that children should be included in some family discussions (e.g. on expenditures of money), their opinions being considered along with the opinions of older members of the family, by the age of _____.
14. I think children should be able to choose the movies they wish to attend by the age of _____.
15. I think children should be able to partake in extra-curricular activities, with some parental guidance in the choice of activities by the age of _____.
16. I think that children should be able to choose their own reading material, including books, magazines and newspapers, by the age of _____.
17. I think a child should be allowed to leave the parental home for a period of time (e.g. to a six weeks camp) by the age of _____.
18. I think that children should be able to make desirable choice from their wardrobe of clothing to be worn, without suggestions from an adult, by the age of _____.
19. I think that children should be able to plan and give a simple afternoon party for immediate friends by the age of _____.
20. I think that a child should be able to prepare and serve lunch to the younger members of the family when the parents are away for lunch by the age of _____.
21. I think that children should be able to take the responsibility for paying one monthly bill for the family (e.g. obtain the money from the parents, pay the bill of the date it is due or before, get receipt for payment--this refers to bills such as light, gas or water bills) by the age of _____.
22. I think that children should be able to make their own arrangements about going to an evening party, when it means taking a street car or bus a distance of three miles or less, by the age of (this refers to a party which begins at seven o'clock and ends at ten o'clock and includes making decisions as to what time to go, whom to go with, how to meet companions, etc.) _____.

Attitudes toward Law and Justice

Mark the statements which you agree with in the first column, those you disagree with in the second column and those you have no opinion about in the third column.

Agree	Disagree	No opinion		
_____	_____	_____	1.	On the whole judges are honest.
_____	_____	_____	2.	Police often carry a grudge against people who get in trouble with the law and treat them cruelly.
_____	_____	_____	3.	For the most part, justice gets done by the police and the courts.
_____	_____	_____	4.	Many of the people in prisons are actually innocent of the crimes they were convicted for.
_____	_____	_____	5.	Most policement are honest.
_____	_____	_____	6.	Any jury can be fixed and most of them are fixed.
_____	_____	_____	7.	We would have less crime if our laws were more strict.
_____	_____	_____	8.	The big-time crooks never get arrested in this country. It's just the little guy that gets caught.
_____	_____	_____	9.	Most judges are honest and kind-hearted.
_____	_____	_____	10.	Juries seldom understand a case well enough to make a really just decision.
_____	_____	_____	11.	The sentences of judges in court are determined by their prejudices.
_____	_____	_____	12.	Court decisions are almost always just.
_____	_____	_____	13.	Justice does not have cross-cultural generality.
_____	_____	_____	14.	A hungry person has the right to steal.
_____	_____	_____	15.	It is all right to break the law if he or she does not get caught.
_____	_____	_____	16.	Justice is nothing more than certain acts, beliefs and attitudes of the majority of individuals in their daily relations with others.
_____	_____	_____	17.	Law is essential to the enjoyment by citizens of their inalienable rights.
_____	_____	_____	18.	Justice is something over and above human beings.
_____	_____	_____	19.	Justice is a rarely achieved goal.
_____	_____	_____	20.	Law is to secure justice and order among people.
_____	_____	_____	21.	There is no absolute standard of justice.
_____	_____	_____	22.	Justice is the maintenance and administration of the norms of the people.

Flower Arranging

1. What is the traditional bridal flower?
   a. Orange blossoms
   b. White gladioli
   c. White calla lily
   d. White rose
2. Generally, when is the best time to arrage flowers?
   a. Several hours before the function
   b. Immediately before the function
   c. Anytime before the function
   d. Day before the function
3. Which is true about water in flower containers?
   a. Completely change water daily
   b. Add cold water every day
   c. Room temperature is best
   d. Refill water only in the evening
4. What is the general principle for proportion of arrangement?
   a. Flowers 1½ times height of upright container
   b. Depends on texture of flowers
   c. Height of flowers should be that of the vase
   d. There is no general principle
5. Which of the following influence visual balance?
   a. Color intensity
   b. Texture
   c. Distance of focus from center
   d. Number of colors in arrangement

5. Where is the focal point of an arrangement?
   a. Where the brightest color is
   b. Two-thirds of the way from the top
   c. In the middle of the design
   d. Where the arranger prefers

7. In a miniature, what determines the height of the container?
   a. Length of the stems
   b. Size of the flowers
   c. Diameter of the flowers
   d. None of the above

8. What is the effect of candlelight?
   a. Makes green more yellow
   b. Lightens blue
   c. Darkens blue
   d. Deepens purple

9. What are the major principles of flower arranging?
   a. composition, unity, focus, balance
   b. balance, focus, harmony
   c. shape, focus, balance
   d. unity, composition, harmony

10. What are the types of color harmony?
    a. monochromatic, polychromatic, complementary
    b. monochromatic, analogous, complementary
    c. hue, tint, pastel
    d. chromatic, semi-chromatic, analogoug

11. Which is most true about table arrangements?
    a. Include no fruit as guests may eat them
    b. Make low enough so as not to obstruct conversation
    c. High arrangements are permissible if there is "window" space
    d. Should be equally interesting from all sides

12. What is most important in a dried arrangement?
    a. Keep away from sun
    b. Keep away from draught
    c. Place it high in the room
    d. Have it fairly low in height

13. Which are ways to keep flowers longer?
    a. Two aspirin per quart water
    b. Pounding stems
    c. Cut stems straight across
    d. Squeeze out stem juice
14. When is the best time to "condition" flowers?
    a. Anytime before placement
    b. Night before placement
    c. At least 24 hours before placement
    d. At night
15. For flower arranging, which are the forms of color?
    a. Pure color and shade
    b. Hue and pure color
    c. Pure color, white and hue
    d. Pure color, white, hue and tone
16. What does "miniature" refer to?
    a. Using small flowers
    b. Bonzai
    c. Representation on reduced scale
    d. Specially grown flowers

Cross-word Puzzle Ability

Given below are items from cross-word puzzles in daily newspapers. You are to enter in the space provided the best answer you can think of. The number of blanks indicates the number of letters in each answer.

1.	Weight of India	_ _ _ _
2.	Military group	_ _ _ _ _
3.	Ems or Evian	_ _ _
4.	Incentives	_ _ _ _ _ _ _
5.	French writer	_ _ _ _
6.	"The strife is _____"	_ _ _
7.	Aircraft metal	_ _ _ _ _ _ _ _
8.	Bravo!	_ _ _
9.	Contemporary	_ _ _ _ _ _
10.	Phobia	_ _ _ _
11.	Bar offering	_ _ _ _ _
12.	Chutzpah	_ _ _ _ _
13.	Nerve of vision	_ _ _ _ _
14.	Rorschach, for one	_ _ _ _
15.	Vicinity	_ _ _ _
16.	Rot	_ _ _ _ _
17.	Wandering one	_ _ _ _ _
18.	Road covering	_ _ _ _ _ _ _
19.	Rope fiber	_ _ _ _ _
20.	Los _____	_ _ _ _ _ _ _
21.	Kiln	_ _ _ _
22.	Washstand item	_ _ _ _
23.	Fast planes	_ _ _ _
24.	Pueblo Indian	_ _ _ _
25.	Depots: Abbr.	_ _ _ _
26.	Kind of hygiene or surgery	_ _ _ _
27.	Abhorred	_ _ _ _ _
28.	Part of Mao's name	_ _ _
29.	Pittsburgh athlete	_ _ _ _ _ _ _
30.	Frostings	_ _ _ _ _ _
31.	Glove fabric	_ _ _ _ _
32.	Devil's feet	_ _ _ _ _ _
33.	Writer Graham _____	_ _ _ _ _ _
34.	Bone dry	_ _ _ _
35.	Stendhal character	_ _ _ _ _
36.	Alliance of West	_ _ _ _
37.	Doc	_ _ _ _ _
38.	Gary of golf	_ _ _ _ _ _
39.	Range of central U.S.	_ _ _ _ _
40.	Musical alley	_ _ _ _ _ _

Building Cupboards

1. Which wood is most commonly used for cupboards?
   a. Hardwoods
   b. Pine and maple
   c. Hardwoods and some softwoods
   d. Softwoods
2. Which is true of plywood?
   a. It is three layers glued together
   b. It comes in 3, 5, or 7 ply
   c. It is between ½" and 1" thick
   d. Different types of wood are glued cross-grain
3. Which wood most easily dents?
   a. Pine
   b. Redwood
   c. Cherry
   d. Maple
4. What is the thickness of lumber for cupboards?
   a. 1"
   b. ½" to 1"
   c. 3/4" or 13/16"
   d. ½"
5. Which can be used to shape wood?
   a. Lathe
   b. Shaper-press
   c. Drill-press
   d. English shaper
6. What are the kinds of stress at a joint?
   a. direct, indirect
   b. shear, compression, tension
   c. tension, shear, rabbet
   d. full, tension, shear
7. Which are standard glued joints?
   a. Cross-lapped
   b. Mortise and tenon
   c. Dovetail
   d. Mitre
8. What are drawer bottoms made of?
   a. ¼" plywood
   b. ¼" pine
   c. ¼" any wood
   d. 3/8" pine
9. What is true of the order of assembly of a drawer?
   a. Front and one side first
   b. Chamfer first
   c. Back and one side first
   d. Bottom is last
10. Which is true of sanding?
    a. Belt sander substitutes for hand
    b. Belt sander runs in both directions
    c. Belt sander not appropriate
    d. Finish with hand sanding
11. What are the types of glue?
    a. Hide, plastic resin, flake
    b. Plastic resin, white
    c. Plastic resin, hide, white
    d. Resin, celage, white
12. Which is the final grade of sandpaper used?
    a. 3/0
    b. 6/0
    c. Smooth
    d. 5/0
13. Which is the most difficult to apply?
    a. Varnish
    b. Lacquer
    c. French polish
    d. Lorton finish
14. Which joint is used for drawers?
    a. Glue-joint
    b. Mortise and tenon
    c. Dowel pin
    d. Dovetail
15. Why are dowel joints grooved spirally?
    a. To fit tighter
    b. For escape of air
    c. They are not grooved spirally
    d. For better resistance

16. What is a dado?
    a. Ornamental piece
    b. Has nothing to do with carpentry
    c. Groove
    d. Type of finial
17. What is the most important structural detail in a free-sliding drawer?
    a. Rigidity
    b. Balance
    c. Ease of slide
    d. Angle of dovetail joints
18. What is a chamfer?
    a. A saw cut
    b. A type of finial
    c. A machine to cut lumber
    d. A 45 degree cut removing a corner

Attitudes toward Social Practices: Birthday Parties

Read each item carefully and put the number next to it that expresses your feeling about the statement. Be sure to answer each item.

1 = Strongly Disagree
2 = Disagree
3 = Undecided
4 = Agree
5 = Strongly Agree

_____ 1. Birthday parties have an irresistable attraction for me.

_____ 2. I enjoy birthday parties.

_____ 3. Birthday parties accomplish nothing worthwhile.

_____ 4. Birthday parties make for happier lives.

_____ 5. Birthday parties are fun only for some people.

_____ 6. Birthday parties are an important cultural acknowledgement of a biological and social event.

_____ 7. Birthday parties reflect over-commercialism.

_____ 8. There are several disadvantages to birthday parties.

_____ 9. I dislike birthday parties, but do not object to others liking them.

_____ 10. Some birthday parties are boring.

_____ 11. Birthday parties are better than not celebrating one's birthday.

_____ 12. I love birthday parties.

_____ 13. Most people feel awkward at their own birthday party.

_____ 14. I cannot imagine someone not liking birthday parties.

_____ 15. Birthday parties reinforce notions of individualism.

_____ 16. My likes and dislikes for birthday parties are balanced.

_____ 17. Birthday parties are a waste of time and money.

_____ 18. Birthday parties are sinful.

_____ 19. Birthday parties are only appropriate for children.

_____ 20. Birthday parties serve an important social function.

_____ 21. Birthday parties can be overdone.

_____ 22. Cultures that do not have birthday parties lack an important social characteristic in the citizens.

Attitudes toward Social Practices: T-shirts in Public

Read each item carefully and put the number next to it that expresses your feeling about the statement. Be sure to answer each item.

1 = Strongly Disagree
2 = Disagree
3 = Undecided
4 = Agree
5 = Strongly Agree

_____ 1. I enjoy wearing t-shirts in public.

_____ 2. T-shirts are liked by almost everyone.

_____ 3. Wearing t-shirts in public serves a good purpose.

_____ 4. Wearing t-shirts in public should be appreciated by more people.

_____ 5. Wearing t-shirts in public is being more and more accepted as time passes.

_____ 6. There are advantages to wearing t-shirts in public.

_____ 7. There is no reason for stopping the fashion of wearing t-shirts in public.

_____ 8. Wearing t-shirts in public is all right in some cases.

_____ 9. My likes and dislikes for t-shirts in public are balanced.

_____ 10. I dislike wearing t-shirts in public but I do not object to others doing it.

_____ 11. T-shirts now come in very attractive styles.

_____ 12. Wearing t-shirts in public has limitations and defects.

_____ 13. I am not against wearing t-shirts in public but neither am I for it.

_____ 14. T-shirts in public are over-rated.

_____ 15. T-shirts in public is a revolutionary idea in fashion.

_____ 16. Designed t-shirts are a waste of money.

_____ 17. The informality of t-shirts in public is refreshing.

_____ 18. Fashion authorities are in favor of t-shirts in public.

_____ 19. T-shirts in public is a way to express one's individuality.

_____ 20. It is healthy to wear t-shirts in public.

_____ 21. Wearing t-shirts in public is a fad that will soon pass.

_____ 22. Wearing t-shirts in public is all right as long as they are clean and attractive.

Attitudes toward Social Practices: Wearing Platform Shoes

Read each item carefully and put the number next to it that expresses your feeling about the statement. Be sure to answer each item.

1 = Strongly Disagree
2 = Disagree
3 = Undecided
4 = Agree
5 = Strongly Agree

_____ 1. I enjoy the practice of wearing platform shoes.

_____ 2. Platform shoes are liked by almost everyone.

_____ 3. Wearing platform shoes serves a good purpose.

_____ 4. Platform shoes should be appreciated by more people.

_____ 5. Platform shoes are being more and more accepted as time passes.

_____ 6. There are disadvantages to platform shoes.

_____ 7. There is no reason for stopping the fashion of wearing platform shoes.

_____ 8. Wearing platform shoes is all right in some cases.

_____ 9. My likes and dislikes for platform shoes are balanced.

_____ 10. I dislike platform shoes but do not object to others liking them.

_____ 11. It is not true that platform shoes are bad for one's feet.

_____ 12. Wearing platform shoes has limitations and defects.

_____ 13. Platform shoes are a waste of money.

_____ 14. Platform shoes are over-rated.

_____ 15. Fashion authorities are in favor of platform shoes.

_____ 16. Wearing platform shoes is worthwhile.

_____ 17. Platform shoes are a good means of improving posture.

_____ 18. Wearing platform shoes lessens the incidence of tired feet.

_____ 19. Wearing platform shoes is a little foolish.

_____ 20. Platform shoes are a revolutionary idea in fashion.

_____ 21. People who wear platform shoes probably have less backaches than others.

_____ 22. I am not against wearing platform shoes, but neither am I for it.

APPENDIX C
PAPER-AND-PENCIL DEPENDENT MEASURES

Self-esteem Measure

Carefully read the questions and circle the response that is closest to what you think is the best answer.

1. How often do you have the feeling that there is nothing you can do well?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

2. When you talk in front of a class or a group of people of your own age, how pleased are you with your performance?

Very Pleased	Fairly Pleased	Somewhat Pleased	A little Pleased	Not Pleased

3. How often do you feel that you have handled yourself well at a social gathering?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

4. When you have to talk in front of a class or group of people your own age, how afraid or worried do you usually feel?

Very afraid	Fairly afraid	Somewhat afraid	A little afraid	Not afraid

5. How often do you worry about whether other people like to be with you?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

6. How often do you have the feeling that you can do everything well?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

7. How comfortable are you when starting a conversation with people whom you do not know?

Very Comfortable	Fairly Comfortable	Somewhat Comfortable	A little Comfortable	Not Comfortable

8. How often do you feel self-conscious?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

9. How often are you troubled with shyness?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

10. How often do you feel that you are a successful person?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

11. How confident are you that your success in your future career or job is assured?

Very Confident	Fairly Confident	Somewhat Confident	A little Confident	Not Confident

12. When you speak in a class discussion, how sure of yourself do you feel?

Very sure	Fairly sure	Somewhat sure	A little sure	Not sure

13. How often do you feel inferior to most of the people you know?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

14. Do you ever think that you are a worthless individual?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

15. How sure of yourself do you feel among strangers?

Very sure	Fairly sure	Somewhat sure	A little sure	Not sure

16. How much do you worry about how well you get along with other people?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

17. How confident do you feel that someday the people you know will look up to you and respect you?

Very Confident	Fairly Confident	Somewhat Confident	A little Confident	Not Confident

18. In general, how confident do you feel about your abilities?

Very Confident	Fairly Confident	Somewhat Confident	A little Confident	Not Confident

19. How often do you feel that you dislike yourself?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

20. Do you ever feel so discouraged with yourself that you wonder whether anything is worthwhile?

Very Often	Fairly Often	Sometimes	Once in a great while	Practically never

Place the number that indicates your degree of agreement next to each item. 1 strongly agree 2 agree 3 disagree 4 strongly disagree

_____ I feel that I'm a person of worth, at least on an equal basis with others.

_____ I feel that I have a number of good qualities.

_____ All in all, I am inclined to feel that I am a failure.

_____ I am able to do things as well as most other people.

_____ I feel I do not have much to be proud of.

_____ I take a positive attitude toward myself.

_____ On the whole, I am satisfied with myself.

_____ I wish I could have more respect for myself.

_____ I certainly feel useless at times.

_____ At times I think I am no good at all.

Rating of Causes

There are four general possible causes of a person's performance. These are: 1) the person's inherent ability and personal qualities; 2) the amount of effort and concentration the person applies to the task; 3) the difficulty of the task the person is trying to do; and 4) chance or luck. Please rate how much you think each of these elements had to do with the outcome of the scale you completed. There are two different measures of this because we are testing to see which one is a more sensitive index. Please complete them both.

I. Circle the number that expresses your evaluation of each cause.

1. Ability and personal qualities
   Not a cause 0 1 2 3 4 5 Very much a cause

2. Effort and concentration
   Not a cause 0 1 2 3 4 5 Very much a cause

3. Difficulty of the task
   Not a cause 0 1 2 3 4 5 Very much a cause

4. Chance and luck
   Not a cause 0 1 2 3 4 5 Very much a cause

II. What percentage of the outcome of your scale responses can be explained by each of the following:

Ability and personal qualities	_____%
Chance and luck	_____%
Difficulty of the task	_____%
Effort and concentration	_____%
Other factors, if any (list)	_____%
TOTAL	100%

Personnel Performance Sheet

1. Please give an overall rating of how your interviewer conducted the session. Check the appropriate one.

Excellent	_____
Very good	_____
Good	_____
Fair	_____
Not good	_____
Bad	_____
Very bad	_____

2. How clear was the interviewer in giving you instructions and in explaining results? Check the appropriate one.

Excellent	_____
Very good	_____
Good	_____
Fair	_____
Not good	_____
Bad	_____
Very bad	_____

3. Do you think your interviewer is a good person for this sort of job? Check the appropriate one.

Yes, definitely	_____
Yes	_____
Unsure	_____
No	_____
No, definitely	_____

4. Read carefully and then rate your interviewer on the following characteristics by circling the appropriate line.

Warmth:	Low	- - - - - -	High
Sensitivity:	High	- - - - - -	Low
Insight:	High	- - - - - -	Low
Maturity:	Low	- - - - - -	High
Competence:	High	- - - - - -	Low
Clarity:	Low	- - - - - -	High
Intelligence:	Low	- - - - - -	High
Experience:	High	- - - - - -	Low
Open-mindedness:	Low	- - - - - -	High
Personableness:	High	- - - - - -	Low
Trustworthiness:	Low	- - - - - -	High

5. Please rate the scale that you completed in the first session on how good an assessment procedure it is.

Valid	- - - - - -	Not valid
Accurate	- - - - - -	Not accurate
Not useful	- - - - - -	Useful

Attribute Rating Scale

In order to help us in determining the meaning that various personal attributes have for people, we would like you to fill out this scale by indicating your feelings about each attribute.

1. For the following abilities and opinion objects please rate each in terms of its importance to you. Choose the number that best expresses your feeling about each item.

1 = Very unimportant 3 = Important
2 = Unimportant 4 = Very important

_____Ability to do well under pressure
_____Ability to think clearly
_____Having an opinion on self-reliance
_____Having an opinion on education
_____Reading comprehension ability
_____Ability to design buildings
_____Ability to arrange flowers
_____Having an opinion on birthday parties
_____Having an opinion on platform shoes
_____Ability to make decisions
_____Ability to build cupboards
_____Having an opinion on justice
_____Having an opinion on dishes
_____Ability to solve problems
_____Ability to fine tune color TVs
_____Having an opinion on religion
_____Having an opinion on T-shirts in public
_____Cross-word puzzle ability

2. Please rate the following personal attributes in terms of how important you think they are to the general public. Choose the number that best expressed your feeling about each item.

1 = Very unimportant 3 = Important
2 = Unimportant 4 = Very important

_____Having an opinion on platform shoes
_____Having an opinion on religion
_____Ability to fine tune color TVs
_____Ability to solve problems
_____Reading comprehension ability
_____Having an opinion on justice
_____Ability to do well under pressure
_____Ability to build cupboards
_____Having an opinion on birthday parties
_____Ability to arrange flowers
_____Ability to design buildings
_____Having an opinion on education
_____Ability to make decisions
_____Having an opinion on dishes
_____Ability to think clearly
_____Having an opinion on T-shirts in public
_____Cross-word puzzle ability
_____Having an opinion on self-reliance

3. Please rate the extent to which a friend describing you might include reference to the following attributes.
   1 = Friend definitely would not include this attribute
   2 = Friend might not include this attribute
   3 = Friend might include this attribute
   4 = Friend definitely would include this attribute

_____Has an opinion on t-shirts in public
_____Can arrange flowers
_____Can design buildings
_____Has an opinion on education
_____Can make decisions
_____Has an opinion on self-reliance
_____Has an opinion on dishes
_____Can think clearly
_____Can build cupboards
_____Has an opinion on platform shoes
_____Has an opinion on religion
_____Can fine tune a color TV
_____Can solve problems
_____Has reading comprehension ability
_____Has an opinion on justice
_____Can do well under pressure
_____Has an opinion on birthday parties
_____Can do cross-word puzzles

4. How interested would you be in getting feedback on where you were, relative to other people, on each of the following attributes?
   1 = Very uninterested 3 = Interested
   2 = Uninterested 4 = Very interested

_____Opinion on platform shoes
_____Opinion on religion
_____Opinion on justice
_____Fine tuning color RVs
_____Solving problems
_____Reading comprehension
_____Doing well under pressure
_____Cross-word puzzle ability
_____Building cupboards
_____Opinion on t-shirts in public
_____Arranging flowers
_____Designing buildings
_____Opinion on education
_____Making decisions
_____Opinion on self-reliance
_____Opinion on dishes
_____Thinking clearly
_____Opinion on birthday parties

REFERENCES

Abelson, R.P. "Modes of resolution in belief dilemmas." In M. Fishbein (Ed.) Readings in Attitude Theory and Measurement. New York: John Wiley and Sons, 1967.

Allport, G.W. "Is the concept of self necessary?" In C. Gordon and K.J. Gergen (Eds.) The Self in Social Interaction, Vol. I. New York: John Wiley and Sons, 1968.

Argyle, M. Social Interaction. Chicago: Aldine, 1969.

Arnet, C.C., Davidson, H.H. and Lewis, H.N. "Prestige as a factor in attitude change," Sociology and Social Research, 1931, 16, 49-55.

Aronson, E., Turner, J.A. and Carlsmith, J.M. "Communicator credibility and communication discrepancy as determinants of opinion change," Journal of Abnormal and Social Psychology, 1963, 76, 31-36.

Berkowitz, L. Social Psychology. Glenview, Ill: Scott, Foresman and Co., 1972.

Bettinghaus, E.P. Persuasive Communication. New York: Holt, Rinehart and Winston, 1968.

Blau, P.M. Exchange and Power in Social Life. New York: John Wiley and Sons, 1967.

Chaikin, A.L. "The effect of four outcome schedules on persistance, liking for the task and attributions of causality," Journal of Personality, 1971, 39, 512-526.

Cohen, A.R. "Situational structure, self-esteem and threat-oriented reactions to power." In D. Cartwright (Ed.) Studies in Social Power. Ann Arbor: University of Michigan Press, 1959.

Combs, A. and Snygg, D. Individual Behavior: A Perceptual Approach to Behavior. New York: Harper and Row, 1959.

Cooley, C.H. "The social self: On the meanings of I." In C. Gordon and K.J. Gergen (Eds.) The Self in Social Interaction. New York: John Wiley and Sons, 1968.

Coopersmith, S. The Antecedents of Self-esteem. San Fransisco: W.H. Freeman, 1967.

Crowne, D.P. and Marlowe, D. The Approval Motive. New York: John Wiley and Sons, 1964.

Darley, J.M. and Aronson, E. "Self-evaluation versus direct anxiety reduction as determinants of the fear-affiliation relationship," Journal of Experimental Social Psychology, 1966, Supplement 1, 66-79.

Eagly, A.H. "Involvement as a determinant of response to favorable and unfavorable information," Journal of Personality and Social Psychology, 1967, 7, Whole Number 643.

Eagly, A.H. and Acksen, B.A. "The effect of expecting to be evaluated on change toward favorable and unfavorable information about oneself," Sociometry, 1971, 34, 411-422.

Eagly, A.H. and Manis, M. "Evaluation of message and communicator as a function of involvement," Journal of Personality and Social Psychology, 1966, 3, 483-485.

Feather, N. "Attribution of responsibility and valence of success and failure in relation to initial confidence and task performance," Journal of Personality and Social Psychology, 1969, 13, 129-144.

Feather, N. "Valence of success and failure in relation to task difficulty: Past research and recent progress," Australian Journal of Psychology, 1968, 20, 111-122.

Festinger, L. A theory of cognitive dissonance. New York: Row, Peterson, 1957.

Festinger, L. "A theory of social comparison processes," Human Relations, 1954, 7, 117-140 (a).

Festinger, L. "Motivations leading to social behavior." In M.R. Jones (Ed.) Nebraska Symposium on Motivation. Lincoln, Nebraska: University of Nebraska Press, 1954 (b).

Fine, B.J. "Conclusion-drawing, communicator credibility and anxiety as factors in opinion change," Journal of Abnormal and Social Psychology, 1957, 54, 369-374.

Fitch, F. "Effects of esteem, perceived performance and choice on causal attributions," Journal of Personality and Social Psychology, 1970, 16, 311-315.

Fontaine, G. "Causal attribution in simulated versus real situations: When are people logical, when are they not?" Journal of Personality and Social Psychology, 1975, 32, 1021-1029.

Frieze, I. and Weiner, B. "Cue utilization and attributional judgments for success and failure," Journal of Personality, 1971, 39, 591-605.

Gerard, H.B. "Experimental investigations of mediational events." In R.P. Abelson et al. (Eds.) Theories of Cognitive Consistency: A Sourcebook. Chicago: Rand McNally, 1968.

Gergen, K.J. The Concept of Self. New York: Holt, Rinehart and Winston, 1971.

Gordon, B.F. "Influence and social comparison as motives for affiliation," Journal of Experimental Social Psychology, 1966, Supplement 1, 55-65.

Gruder, C.L. "Determinants of social comparison choices," Journal of Experimental Social Psychology, 1971, 7, 473-489.

Haiman, F.S. "An experimental study of the effects of ethos in public speaking," Speech Monographs, 1949, 16, 190-202.

Hakmiller, K.L. "Threat as a determinant of downward comparison," Journal of Experimental Social Psychology, 1966, Supplement 1, 32-39.

Heider, F. "Social perception and phenomenal causality," Psychological Review, 1944, 51, 358-374.

Heider, F. The Psychology of Interpersonal Relations. New York: John Wiley and Sons, 1958.

Hovland, C.I., Janis, I.L. and Kelley, H.H. Communication and Persuasion: Psychological Studies of Opinion Change. New Haven: Yale University Press, 1963.

Hovland, C.I. and Weiss, W. "The influence of source credibility on communicator effectiveness," Public Opinion Quarterly, 1952, 15, 635-650.

Howard, R.C. and Berkowitz, L. "Reactions to the evaluators of one's performance," Journal of Personality, 1958, 26, 393-507.

Hyman, H.H. and Singer, E. Readings in Reference Group Theory and Research. New York: The Free Press, 1968.

Israel, J. "Experimental change of attitude using the Asch-effect," Acta Sociologica, 1963, 7, 95-104.

Johnson, H.H. and Steiner, I.D. "The effect of source on responses to negative information about oneself," Journal of Social Psychology, 1968, 74, 215-224.

Johnson, T.J., Feigenbaum, R. and Weiby, M. "Some determinants and consequences of the teacher's perception of causation," Journal of Educational Psychology, 1964, 55, 237-246.

Jones, S.C. "Self- and interpersonal evaluations: Esteem theories versus consistency theories," Psychological Bulletin, 1973, 79, 185-199.

Kelley, H.H. "Attribution theory in social psychology." In D. Levine (Ed.) Nebraska Symposium on Motivation. Lincoln, Nebraska: Univeristy of Nebraska Press, 1967.

Kelman, H. "Processes of opinion change," Public Opinion Quarterly, 1961, 25, 57-78.

Koocher, G.P. "Swimming, competence and personality change," Journal of Personality and Social Psychology, 1971, 18, 275-278.

Krech, D. and Crutchfield, R.S. Theory and Problems of Social Psychology. New York: McGraw-Hill, 1948.

Lecky, P. Self-consistency: A Theory of Personality. Garden City: Doubleday, 1969.

Lewin, K., Dembo, T., Festinger, L. and Sears, P. "Level of aspiration." In J. McV. Hunt (Ed.) Personality and Behavior Disorder, Vol. I. New York: Ronald Press, 1944.

Luginbuhl, J.E.R., Crowe, D.H. and Kahan, J.P. "Causal attribution for success and failure," Journal of Personality and Social Psychology, 1975, 31, 86-93.

Mead, G.H. "The genesis of the self." In C. Gordon and K.J. Gergen (Eds.) The Self in Social Interaction, Vol. I. New York: John Wiley and Sons, 1968.

Merton, R.K. Mass Persuasion. New York: Harper and Brothers, 1946.

Miller, N. "Involvement and dogmatism as inhibitors of attitude change," Journal of Experimental Social Psychology, 1965, 1, 121-132.

Morse, S. and Gergen, K.J. "Social comparison, self-consistency and the concept of self," Journal of Personality and Social Psychology, 1970, 16, 148-156.

Nicholls, J.G. "Causal attributions and other achievement-related cognitions: Effects of task, outcome, attainment value and sex," Journal of Personality and Social Psychology, 1975, 31, 379-389.

Nissen, H.W. "Comments on Dr. Festinger's Paper." In M.R. Jones (Ed.) Nebraska Symposium on Motivation. Lincoln, Neb.: University of Nebraska Press, 1954.

Pepitone, A. Attraction and Hostility. New York: Atherton Press, 1964.

Pepitone, A. "Attribution of causality, social attitudes and cognitive matching processes." In R. Taguiri and L. Petrullo (Eds.) Person Perception and Interpersonal Behavior. Stanford: Stanford University Press, 1958.

Pepitone, A. and Wilpizeski, C. "Some consequences of experimental rejection," Journal of Abnormal and Social Psychology, 1960, 66, 359-364.

Regan, J.W., Gosselink, H., Hubsch, J. and Ush, E. "Do people have inflated views of their own ability?" Journal of Personality and Social Psychology, 1975, 31, 295-301.

Robinson, J.P. and Shaver, P.R. Measures of Social Psychological Attitudes. Ann Arbor, Mich: Survey Press Center, Institute for Social Research, 1973.

Rogers, C.R. Client-centered Therapy. Boston: Houghton Mifflin, 1951.

Rokeach, M. Beliefs, Attitudes and Values: A Theory of Organization. San Fransisco: Jossey-Bass, 1968.

Rose, J.D. "The I and the They: A study of self-enhancement," Dissertation Abstracts International, 1966, 27(4-A), 1123.

Rosenberg, M. "Psychological selectivity in self-esteem formation." In C. Gordon and K.J. Gergen (Eds.) The Self in Social Interaction. New York: John Wiley and Sons, 1968.

Rosenberg, M. Society and the Adolescent Self-image. Princeton: Princeton University Press, 1965.

Schachter, S. The Psychology of Affiliation. Stanford: Stanford University Press, 1959.

Schlenker, B.R. "Group members' attribution of responsibility for prior group performance," Representative Research in Social Psychology, 1975, 6, 96-108 (a).

Schlenker, B.R. "Self-presentation: Managing the impression of consistency when reality interferes with self-enhancement," Journal of Personality and Social Psychology, 1975, 32, 1030-1037 (b).

Schneider, D.J. "Tactical self-presentation after success and failure," Journal of Personality and Social Psychology, 1969, 13, 262-268.

Secord, P. "Consistency theory and self-referent behavior." In R.P. Abelson, W.J. McGuire, T.M. Newcomb, M.J. Rosenbaum and P.H. Tannenbaum (Eds.) Theories of Cognitive Consistency: A Sourcebook. Rand McNally, 1968.

Shaw, M.E. and Wright, J.M. Scales for the Measurement of Attitudes. New York: McGraw-Hill, 1967.

Sherif, M. and Hovland, C.I. Social Judgment: Assimilation and Contrast Effects in Communication and Attitude Change. New Haven: Yale University Press, 1961.

Sherif, M. and Sherif, C.W. "Attitudes as the individual's own category: The social judgment-involvement approach to attitudes and attitude change." In C.W. Sherif and M. Sherif (Eds) Attitude, Ego-involvement and Change. New York: John Wiley and Sons, 1967.

Singer, J.E. "Social comparison: Progress and issues," Journal of Experimental Social Psychology, 1966, Supplement 1, 103-110.

Snyder, A.F., Mischel, W. and Lott, B.E. "Value, information and conformity behavior," Journal of Personality, 1960, 28, 333-341.

Steiner, I.D. "Reactions to adverse and favorable evaluation of oneself," Journal of Personality, 1968, 36, 553-564.

Steiner, I.D. and Rogers, E.D. "Alternative responses to dissonance," Journal of Abnormal and Social Psychology, 1963, 36, 128-136.

Strauss, H.M. "A study of reference group and social comparison processes among the blind," Dissertation Abstracts International, 1967, 27(11-A), 3939.

Streufert, S. and Streufert, S.C. "Effects of conceptual structure, failure and success on attributions of causality and interpersonal attitudes," Journal of Personality and Social Psychology, 1969, 11, 138-147.

Sullivan, H.S. The Interpersonal Theory of Psychiatry. New York: W.W. Norton, 1953.

Symonds, P.M. The Ego and the Self. New York: Appleton-Century-Crofts, 1951.

Thornton, D.A. and Arrowood, A.J. "Self-evaluation, self-enhancement and the locus of social comparison," Journal of Experimental Social Psychology, 1966, Supplement 1, 40-48.

Videbeck, R. "Self-conception and the reaction of others," Sociometry, 1960, 23, 351-359.

Weiner, B., Frieze, I., Kukla, A., Reed, L., Rest, S. and Rosenbaum, R.M. "Perceiving the causes of success and failure." In E.E. Jones, D.E. Kanouse, H.H. Kelley, R.E. Nisbet, S. Valins and B. Weiner (Eds.) Attribution: Perceiving the Causes of Behavior. Morristown: General Learning Press, 1972.

Wheeler, L. "Motivation as a determinant of upward comparison," Journal of Experimental Social Psychology, 1966, Supplement 1, 27-31.

Wheeler, L., Shaver, K.G., Jones, R.A., Goethals, G.R., Cooper, J.A., Robinson, J.E., Gruder, C.L. and Butzine, K.W. "Factors determining choice of comparison other," Journal of Experimental Social Psychology, 1969, 5, 219-232.

White, R. "Motivation reconsidered: The concept of competence," Psychological Review, 1959, 66, 297-334.

Wylie, R.C. The Self-concept. Lincoln, Nebraska: University of Nebraska Press, 1961.

Zander, A. and Medow, H. "Individual and group levels of aspiration," Human Relations, 1963, 16, 89-105.

BIOGRAPHICAL SKETCH

I, Nancy L. Ashton, born April 20, 1950, received early education in life's many facets in New Jersey and Connecticut and completed by formative schooling at Watertown High School, Watertown, Connecticut. Fortunately, I shortly thereafter left that locale forever and went on to Smith College where I received a Bachelor's degree in Psychology in May 1972. While at Smith I had a Sloan Fellowship with Len Bickman and was elected to the Society of Sigma Xi. That September I began graduate school in the sunshine of the University of Florida and completed my Master's degree in Social Psychology in August 1974. The next hurdle was over when I passed the Qualifying Examination in March 1975. Throughout this period I was able to feed and house myself with the aid of a USPHS traineeship and many babysitting hours. I also gained valuable experience teaching and doing research, with some monetary compensation in the form of a teaching assistantship. Upon completion of my stay here at Florida I will trek to parts West where I will be an assistant professor on the Psychology faculty at Kearney State College, Kearney, Nebraska.

I certify that I have read this study and that in my opinion it conforms to the acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Marvin E. Shaw, Chairman
Professor of Psychology

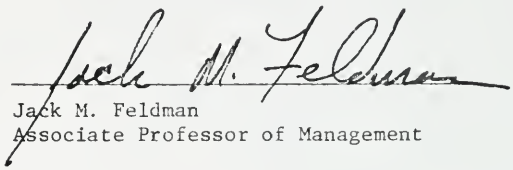
I certify that I have read this study and that in my opinion it conforms to the acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Barry R. Schlenker
Assistant Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to the acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Barbara L. Baldridge
Assistant Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to the acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Jack M. Feldman
Associate Professor of Management

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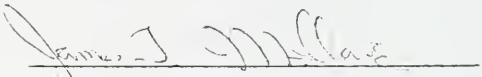

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This dissertation was submitted to the Graduate Faculty of the Department of Psychology in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 1976

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Dean, Graduate School

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