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## A Critical Examination of Korman's Self-Esteem Motivation Theory

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A CRITICAL EXAMINATION  
OF KORMAN'S SELF-ESTEEM  
MOTIVATION THEORY

by

Dierdra E. Bowditch

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## INTRODUCTION

Since the advent of cognitive theory in learning, there has been a somewhat parallel movement among motivation theorists. The "cognitive" theorists presume that man is rational and able to organize his thoughts, attitudes, beliefs, and experiences in meaningful ways. Heider believes organisms strive to achieve "balanced states," and Newcomb has identified a "strain toward symmetry" in man's behavior (Zajonc, 1960). Lecky (1961, p.2) states that "motivation theory is incomplete without recognizing that the prime need of an organism is to maintain its mental organization as a unified whole." Festinger's "cognitive dissonance" theory (Festinger, 1957) appears to express the same thought that man will be most comfortable and satisfied when all his thoughts, attitudes, and beliefs are consistent with each other.

Vroom's (1964) more recent cognitive model of motivation similarly relies on man's desire for consistency. Vroom hypothesized that a person is most motivated to do (a) those things he most prefers to do, or those activities whose outcomes he believes to be pleasurable and he therefore assigns a positive valence, and (b) that which he sees as having the highest probability of success, or what he believes he will be able to attain (called "expectancy"). Vroom's valence X expectancy motivation theory sees man as

both rational and consistent.

Other theorists have expanded upon Vroom's theory. Particular attention has been given to the "expectancy" portion of Vroom's theory. Kaufman (1963) included one's self-concept within the theory of cognitive balance. If an individual believes that he possesses an attribute necessary for his performance, he will tend to expect that he will perform well, and he will try to see that his expectation of his performance is accurate. If, on the other hand, he fails, a state of imbalance will exist, and he will either change his belief in his own attributes or change his belief that the attribute is critical to performance.

Korman (1967a) is another theorist who has enlarged upon Vroom's valence X expectancy model. Broadly, Korman suggests that a person's expectations are influenced by his self-esteem. In Korman's terms, self-esteem acts as a "moderator variable" on an individual's behavior (Korman, 1966). Korman (1967b) relies heavily on earlier theorists to make a number of theoretical assumptions. First, he has assumed that individuals will find satisfying those circumstances which maximize their sense of cognitive balance. The second assumption is that individuals will strive to attain "balance" situations. Third, Korman assumes that social norms prescribe that individuals should seek and perform well on tasks and situations they find satis-

fyng. The last of Korman's assumptions defines self-esteem as ". . . the extent to which he sees himself as a competent, personal, need-fulfilling individual." (Korman, 1968, p. 485).

For all its similarity to earlier motivation theories, Korman has carefully delineated the differences found in his new theory from earlier theories (Korman, 1968). First and perhaps most important, Korman's theory emphasizes self-esteem and self-perception as part of the cognitive system of an individual, and suggests causes of variations in one's self-perception, such as mood or particular experiences. Second, Korman's theory is capable of explaining self-esteem conceptions on the basis of either past reinforcement history (experience) or more immediate causes, such as certain social or interpersonal influences. Third, it attempts to make predictions on three dependent variables of particular relevance to industrial psychology: work performance, work choice, and work satisfaction, all within the same theoretical framework.

Korman's specific hypothesis is that "all other things being equal, individuals will engage in and find satisfying those behavioral roles which will maximize their sense of cognitive balance or consistency." (Korman, 1970, p.32). Korman has derived two corollaries implied by this major hypothesis:

- 1) Individuals will tend to perform on a task

in a manner that is consistent with, or in balance with, their self-esteem concept on a given task. If a person has a great deal of self-esteem relative to a certain task, he will be motivated to perform well on that task to maintain his cognitive balance.

- 2) Individuals tend to choose and find most satisfying those task roles which are most consistent with their self-esteem. If a person perceives himself as a competent, achieving, need-satisfying individual, he will choose and find most satisfying those tasks which allow him to be in balance with his self-esteem.

In Korman's conception, an individual with high self-esteem will perceive himself to be capable of performing well on more difficult tasks, partially as a function of his self-esteem. The circularity of Korman's theory is reversed in the case of the individual with low self-esteem. The person with low self-esteem is more likely to accept situations where his performance will not be adequate and where he will actually not perform well, thereby maintaining his cognitive balance. This in turn will lower his self-esteem even further and lead him once again to choose tasks where his performance will be inadequate (Korman, 1967a).

Korman has allowed for certain fluctuations in self-esteem. Some people may have a relatively stable concept of their self-esteem across all tasks and situations. Other individuals' self-esteem may vary with the particular task at hand. Finally, and of particular relevance to the present paper, self-esteem may be influenced by the expect-

tations that others have of us, as demonstrated and discussed by Tannenbaum (1962).

The two manipulations under study in this paper have been examined separately by Korman (1970). Korman attempted to manipulate self-perceived competence and determine its relative effects on high and low self-esteem individuals. He predicted that the higher the goals are set for an individual, the higher the implied competence and the better the performance (Korman, 1971), particularly for high self-esteem individuals. Perhaps one of the most famous, though controversial, studies dealing with self-perceived competence was made by Aronson and Carlsmith (1962). They predicted and substantiated the fact that individuals who experience dissonance between their self-perceived competence can also influence performance. Ziller (1969) has theorized that self-esteem mediates social stimuli and responses: people with high self-esteem (HSE) are more insulated from evaluations and manipulations, while persons with low self-esteem (LSE) are more easily influenced by any evaluations or manipulations around them. Not only can performance be affected by an individual's self-perceived competence, but his self-perceived competence can also be manipulated, thereby changing his performance (Digory, 1966). Korman has predicted and obtained the result that high self-esteem (HSE) people perform better than low self-esteem (LSE) persons

on the same task (Korman, 1970).

The second manipulation made by Korman (1970) involved the delay of feedback of performance on a given task. Ostensibly, individuals with low self-esteem (LSE) who were told they were not performing well would not modify their performance. Persons with high self-esteem (HSE), however, would change their behavior if they were told they were not performing well. Specifically, feedback was immediate when the Brick Uses Test was used as the dependent variable because Ss could see their degree of success as they went along. There was no feedback given when the Watson-Glaser Critical Thinking Appraisal served as the dependent variable because Ss were never told the correct responses (Korman, 1970). Korman predicted that the high self-esteem (HSE) persons would perform better than the low self-esteem (LSE) people when both were given feedback on their performance. Results obtained by Korman (1970) give reasonable support to the predictions.

Korman's two studies that have dealt with self-perceived competence and delay of feedback (Korman, 1968; 1970) have used either the Brick Uses Test or the Inferences Subtest of the Watson-Glaser Critical Thinking Appraisal. No particular explanation was given for using these tests, other than they are "creativity" type tests (Korman, 1970). The author of the present study has recognized that in order for Korman's results to be more widely



acceptable and generalizable, a broader range of "creativity" tests should be employed as dependent variables. It is also a notion of this author that performance on such tests might be modified not only by self-esteem, but by a more basic attribute, such as "intelligence," as well.

The purpose of the present study is (1) to replicate the results of Korman's (1970) previous study, (2) to investigate the interaction effects between self-esteem, delay of feedback, and self-perceived competence, and (3) to determine whether the results of Korman's (1970) study are generalizable to dependent variables other than those employed by Korman.

## METHOD

The subjects for this study were 33 Western Michigan University students enrolled in the course "Psychological Measurement," offered by the Psychology Department. The class was moderately heterogeneous with respect to academic major areas. Approximately half of the students were psychology majors, and the other half was composed of education and multifarious other major areas. The majority of subjects were juniors and seniors. Virtually all Ss had little, if any previous experience as subjects in any type of psychological experiment.

A number of separate studies were planned. First, a 2 X 2 X 3 analysis of variance design, with the independent variables self-esteem, self-perceived competence, and delay of feedback was devised. The dependent variable for this design was the Inferences subtest of the Watson-Glaser Critical Thinking Appraisal (Form YM), used previously by Korman (1970). The second study was a 2 X 2 design, with self-esteem and self-perceived competence as the independent variables. For this design, the Match Problems test was chosen because (a) it could be scored objectively, and (b) statistically, it was least related, of a number of "creativity" tests, to the Brick Uses test, also used previously by Korman (1970) (Cline, et. al., 1962; Cline, et. al., 1963). The only reason that the feedback

variable was not administered with this design using the Match Problems test as the dependent variable was due to a lack of time; the answers to this test are rather complex and would have required Ss to give more than a rapid glance to obtain feedback. The third investigation was intended to determine the relative contributions of self-esteem and "intelligence" to the two dependent measures, the Watson-Glaser and the Match Problems test. However, it was later decided that due to a small N, this analysis would be questionable.

The three studies were carried out in rapid succession. All 33 Ss had finished half the class period. The course instructor prefaced his introduction of the experimenter by explaining to the Ss that they had studied about tests all semester; now they were going to have some experience actually taking tests. The E was then introduced, who in turn introduced her two assistants. All three Es were female, to avoid experimental bias. The entire group of Ss were asked to complete Ghiselli's Self-Description Inventory (1971), the measure of self-esteem. Immediately following completion of the Inventory, all Ss were given the Wonderlic Personnel Test (Form D). The Wonderlic served as the measure of "intelligence." The Ss were then randomly divided into three groups. Each of the three groups of Ss were then assigned to a separate room and E. Two Ss were lost in transit.

The Es distributed both tests, the Match Problems and the Watson-Glaser, in a packet, to all Ss. Ss were asked to read the "purpose of tests" explanation attached to each pair of tests. This statement of purpose served as the independent variable self-perceived competence and was drawn directly from an earlier study by Korman (1968). The statement which served as the low level of the self-perceived competence variable read:

This is the first time these two tests ("Match Problems" and "Watson-Glaser Critical Thinking Appraisal") have been used as part of a normative aptitude study at Western Michigan University. Previously, these tests have been administered at Harvard University. Harvard is highly selective in its admission policies: an individual in the 90th percentile here at Western would only be in the 50th percentile at Harvard. Similarly, a student in only the 50th percentile at Harvard would be in the 90th percentile here at Western. From the results of these tests from Harvard, we know what the average levels of performance are. Now we are moving these tests into more "mass" institutions like Western where students are of a much wider range in quality and where the average student at Western is considerably below the Harvard student in ability. We expect to get lower levels of performance here.

The opposite approach was taken for the high level of the self-perceived competence variable. Ss were told they would be compared with junior and community colleges whose admission policies were much less selective than at Western. The same relative percentiles were used: a student at the 90th percentile at a junior college would only be at the 50th percentile at Western. Ss were told "we expect to get higher levels of performance here."

Half of the Ss in each of the three groups, or five or six Ss per group, were given the high self-perceived competence statement, and the other half, or the remaining five or six in each group, received the low self-perceived competence statement. Both statements occupied approximately the same number of lines of type, Ss were not allowed to talk among themselves at any time during the experiment, and Ss were given no opportunity to ask questions about the "purpose of tests" statements. As soon as all Ss finished reading their "purpose of tests" statement, each E immediately read the directions for the Match Problems test. There does not seem to be any reason to believe Ss did not remain naive about the existence of two different statements.

As soon as each group of Ss completed the Match Problems test (a total of 31 Ss), they were asked to read the statement attached to the second test, the Watson-Glaser Critical Thinking Appraisal. This second statement was basically a reminder of the purpose of the tests. For example:

Remember the purpose of these tests is to compare aptitude norms of Harvard students with a "mass" institution such as Western. An individual in the 90th percentile at Western would only be in the 50th percentile at Harvard. We expect to get lower levels of performance here.

A similar restatement for high self-perceived competence Ss was also given. Great care was taken by E to insure

that the main statement of purpose and the reminder were either both directed to high self-perceived competence, or both to low self-perceived competence. Again, Ss were not allowed to talk among themselves and Ss were not given the opportunity to ask questions. Up to this point, the procedure for all three groups of Ss was identical.

When the Ss were finished reading the restatement of the "purpose of the tests," Es read aloud the instructions to the Inferences Subtest of the Watson-Glaser Critical Thinking Appraisal. One E read only the instructions for the Inferences Subtest, then let the Ss take the test as it is normally given. One of the remaining Es added these instructions, which served as the delay of feedback variable:

When you finish the first ten answers, raise your hand and I will give you a sheet that has the first ten correct answers on it. Compare your answers with the answers on this sheet. Do not change any of your answers. Continue working on the test. When you have completed the next ten answers, raise your hand again and I will give you a sheet which has the next ten correct answers on it. Again, compare your answers with this sheet, but do not change any of your answers.

The final E read these same instructions, but distributed the answer sheets after every five answers. Summarizing, one group of Ss received no feedback on their answers to the Watson-Glaser, one group received feedback after every ten answers, and the remaining group received feedback after every five answers. It should be noted that all Ss who were given feedback were given accurate feedback for all

twenty answers to the Inferences Subtest of the Watson-Glaser Critical Thinking Appraisal. All Ss proceeded at their own pace and received a mimeographed strip of paper with the correct answers on it whenever they raised their hands. Ss were instructed to leave the room as soon as they finished the Watson-Glaser test. Twenty-nine Ss completed this test.

The entire set of experiments took approximately an hour and a half, and ended at the same time the regular course was scheduled to end.

## RESULTS

A three-way analysis of variance was employed in the analysis of the data obtained using the Inferences Subtest of the Watson-Glaser Critical Thinking Appraisal. The purpose of this statistical test was to determine the existence of any main effects or interactions among the variables self-esteem, delay of feedback, and self-perceived competence. Because there was an unequal  $n$  per cell, an unweighted means analysis was used to compute the  $F$  values (Kirk, 1968). As shown in Table I, all main and interaction results were non-significant, using  $\alpha=.05$  (see Table II for cell, row, and column means).

Similarly, a two-way analysis of variance was performed, using the scores obtained from the Match Problems Test, to determine whether the results of Korman's (1970) work were generalizable to other creativity type tests. This design also required use of the unweighted means analysis. Results given in Table II again show all results were non-significant at  $\alpha=.05$ . See Table IV for cell, row, and column means for this analysis.

Due to the relatively small  $N$ , any statistical analyses involving a correlation-type analysis were omitted. Therefore, the analyses planned for the "intelligence" scores were not performed.



TABLE I  
Analysis of Variance: Watson-Glaser  
as Dependent Variable (N=29)

Source	SS	df	MS	F
Self-Esteem (A)	.54	1	.54	.014
Delay of Feedback (B)	23.64	2	11.82	.329
Self-Perceived Competence (C)	13.51	1	13.51	.364
A X B	28.24	2	14.12	.381
A X C	29.58	1	29.58	.796
B X C	44.89	2	22.45	.606
A X B X C	35.31	2	17.65	.476
W•cell	1337.73	36	37.07	

TABLE II  
Cell, Row, and Column Means: Watson-  
Glaser as Dependent Variable

		Delay of Feedback		
		0	5	10
HSE $\bar{X}=12.0$ s.d.=2.19	LSPC*	$\bar{X}=12.0$ s.d.=2.0	$\bar{X}=13.5$ s.d.=1.5	$\bar{X}=12.0$ s.d.=1.0
	HSPC**	$\bar{X}=11.5$ s.d.=0.5	$\bar{X}=13.33$ s.d.=2.05	$\bar{X}=9.0$ s.d.=1.0
	LSPC*	$\bar{X}=10.75$ s.d.=2.28	$\bar{X}=14.0$ s.d.=1.0	$\bar{X}=8.33$ s.d.=1.7
LSE $\bar{X}=10.06$ s.d.=3.0	HSPC**	$\bar{X}=8.0$ s.d.=4.0	$\bar{X}=12.0$ s.d.=1.0	$\bar{X}=8.33$ s.d.=0.94
		$\bar{X}=10.6$ s.d.=2.99	$\bar{X}=13.2$ s.d.=1.79	$\bar{X}=9.2$ s.d.=1.99
		*LSPC (Low Self-Perceived Competence)	**HSPC (High Self- Perceived Competence)	
		$\bar{X}=11.4$ s.d.=2.67	$\bar{X}=10.4$ s.d.=2.95	

TABLE III  
 Analysis of Variance: Match Problems  
 as Dependent Variable (N=31)

Source	SS	df	MS	F
Self-Esteem (A)	25.33	1	25.33	1.57
Self-Perceived Competence (B)	13.35	1	13.35	.83
A X B	22.65	1	22.65	1.407
W•cell	434.86	27	16.11	

TABLE IV  
Cell, Row, and Column Means: Match Problems  
as Dependent Variable

	HSE	LSE	
	$\bar{X}=8.0$	$\bar{X}=9.0$	$\bar{X}=8.56$
LSPC*	s.d.=4.65	s.d.=3.5	s.d.=4.21
	$\bar{X}=12.14$	$\bar{X}=7.5$	$\bar{X}=9.67$
HSPC**	s.d.=3.91	s.d.=2.87	s.d.=4.24
	$\bar{X}=10.05$	$\bar{X}=8.3$	
	s.d.=4.95	s.d.=3.41	

\*LSPC is Low Self-Perceived Competence

\*\*HSPC is High Self-Perceived Competence

## DISCUSSION

The results obtained in the present paper demonstrated that the variables self-esteem, feedback, and self-perceived competence failed to show a statistically significant effect on the performance of college students on creativity-type tasks. These results are not in agreement with those found previously by Korman (1970). In his 1970 study Korman found that (a) although the effects of self-perceived competence were not statistically evaluated, high self-esteem (HSE) Ss performed significantly better than did low self-esteem (LSE) Ss, and (b) that when Ss did not have any feedback on their performance, HSE Ss performed somewhat better than did LSE Ss (.06 level of significance, one-tailed test), and Korman concluded that ". . . not having knowledge of results during performance does seem to be an impediment." (Korman, 1970, p.39). Although both these experiments from Korman's (1970) study would have conformed to a simple 2 X 2 analysis of variance design, Korman made the simple hypothesis that HSE Ss would perform better than LSE Ss, then performed a t-test between HSE and LSE groups.

There was one deviation from the procedure of Korman's (1970) study that should be reported. The portion of the present study called "replication" was not, strictly speaking, an exact reproduction of Korman's (1970) study.

There is a major difference in the methodology employed to manipulate the delay of feedback variable. In the Korman (1970) study, a sort of "intrinsic" feedback was given to the Ss. To give feedback, Korman used the Brick Uses test as a dependent variable, and S knew how many answers he was making as he went along. Conversely, the "no feedback" manipulation was made when the Inferences Subtest of the Watson-Glaser Critical Thinking Appraisal was used as a dependent variable and the S could not know whether his answers were correct or incorrect. The methodology used in the present experiment was, if anything, more definite and explicit than Korman's. Since the correct answers were given to Ss on a slip of paper, feedback could be given on the Watson-Glaser test, the Brick Uses test, or the Match Problems test. In this manner, even levels (or frequency) of feedback could be manipulated. Although Korman's (1970) method of giving feedback was not used, the procedure used in this study does not appear to be radically different. Aside from this alteration of the feedback variable, the variables self-esteem and self-perceived competence were kept as similar to Korman's (1970) procedure as possible.

All results should be viewed with the limitation imposed by use of a small N in mind. Although the n per cell was small, particularly in the 3 X 2 X 2 design, the

F values are so low that even the use of a far less critical criterion for significance (e.g.,  $\alpha=.20$ ) results in the same failure to find a significant difference.

Close attention should be given to the validity of the independent variable "self-esteem." Unfortunately, no simple procedure exists for validating the self-assurance scale of Ghiselli's Self-Description Inventory. Ghiselli (1971, p. 59) investigated validation by having twenty-one personnel officers rate themselves in terms of individual job effectiveness on a fifteen-step rating scale. He then correlated those ratings with the scores from the self-assurance scale and found a correlation of 0.37 between the scale scores and the self-ratings. Ghiselli also examined the life-histories of fourteen managerial-type men. Their general effectiveness in dealing with personal and occupational problems was rated and the ratings and their scores on the self-assurance scales were correlated. The correlation was 0.66, a significant value. In the present study it appears that the Ss either lacked much self-assurance in general, or the self-assurance scale is not valid for the college Ss used. The highest scale score obtained in the present study was thirty, which corresponds to only the fifty-sixth percentile of Ghiselli's norm group. Ghiselli's norm group was composed of 346 persons, some college students and some employed persons.

The average self-assurance score in the present study was 22.39, with a standard deviation of 3.635. Ghiselli gave no average or standard deviation for his norm group. Ghiselli did, however, compute these statistics for three groups of persons: line managers, middle managers, and top managers. Even the closest population mean, that of line managers, was significantly different from the college student population used in the present study. See Table V for a comparison of these statistics. When used as an instrument for measuring the self-esteem of college students, one can only guess at the sensitivity and accuracy of Ghiselli's self-assurance scale.

It was stated earlier that differences in Ss' self-perceived competence failed to show a statistically significant effect on the performance of the Ss used in this study. One explanation for this result is provided by Stedry and Kay (1966). They found that when difficult goals were perceived as challenging, performance improved. These investigators were careful to point out, however, that it is difficult to distinguish between that which is challenging and that which is impossible. The non-significant results in the present study can be explained either by the hypothesis that there simply was no effect due to the self-perceived competence manipulation, or that the task appeared too impossible for the Ss, and they were not up to



TABLE V  
Differences Between College Student Population  
and Various Managerial Populations on  
Ghiselli's Self-Assurance Scale

Groups	$\bar{X}$	s.d.	n	t
College Students	22.4	3.635	31	
Line Management	24.9	4.5	172	2.19*
Middle Management	26.7	5.3	176	4.34**
Top Management	28.6	5.1	113	7.03**

\* $p < .05$

\*\* $p < .001$

such a challenge. It is interesting to note that the effectiveness of this particular variable was also of concern to Korman (1968) in one of his earlier studies involving self-perceived competence. In that study, Korman asked each S to write a paragraph concerning his reaction to the experimental situation. Virtually all Ss responded that they "believed" the normative purpose of the study; yet there is a missing link between "believing" an experimenter and attributing the effects to the independent variable. In this day and age of over-tested, sophisticated student subjects, the more probable response is "Yes, I believe the experimenter wants to compare us to Harvard (or community college) students. So who cares? It's Friday and it's hot. Maybe if we follow directions quickly we'll get out early." The hypothesis that the different levels of self-perceived competence simply had no significant effect on Ss' performance would appear to remain the more plausible one.

From a theoretical standpoint, Korman's (1970) predictions are open to question. When feedback was given to both HSE and LSE groups and when both high- and low self-perceived competence was experimentally induced for HSE and LSE groups. Korman made the simple prediction that the HSE group would perform better than the LSE group. Jacobs and Maas (1969) have concluded that HSE Ss may

maintain their self-image by refusing to accept information that would seemingly impair their abilities. On the other hand, presentation of information to LSE Ss that would make one look more able is easier to incorporate. This conclusion would lead one to more elaborate predictions than Korman made. The Jacobs and Maas hypothesis would predict that, given either experimentally induced low self-perceived competence or feedback which disagrees with S's responses, the HSE Ss would approximately maintain their performance, while LSE Ss' performance would probably experience a relatively greater adverse effect. Similarly, if the feedback agrees with an S's responses, or when high self-perceived competence is induced, HSE Ss' performance will remain about the same, whereas that of the LSE Ss would be improved. In general, Jacobs and Maas (1969) would predict that HSE persons will more or less maintain their performance under all kinds of situations, while LSE people are more likely to be influenced by the circumstances around them. The prediction by Korman (1970) that HSE Ss will perform better than LSE Ss, with or without feedback, with high- or low self-perceived competence, could well be something of an oversimplification.

## SUGGESTIONS FOR FUTURE RESEARCH

The general topic of self-esteem as a motivational hypothesis is only beginning to be explored. Any attempt to list all possible areas of future research would be virtually endless. The results of the present study do, however, suggest several specific research areas.

Perhaps one of the most important areas for research is that of developing a valid and reliable instrument for measuring self-esteem. At the very least, validation of Ghiselli's self-assurance scale for strictly student populations needs to be undertaken. Development of new validation procedures might also assist in attaining an accurate measure of self-esteem. Research should not, of course, be confined to Ghiselli's scale; it may or may not be the ultimate answer to the dependent variable dilemma.

Another research area exists for the independent variable self-perceived competence. The procedure used initially by Korman (1968) and adopted in the present study may not be either credible or stringent enough. Other imaginative manifestations of the self-perceived competence variable need to be developed.

Research areas on the topic of self-esteem can be found not only for independent and dependent variables, but on the theory itself as well. As discussed previously

in the present study, Jacobs and Maas (1969) would make theoretical predictions different from those of Korman. Korman operates on an "absolute difference" hypothesis between HSE and LSE groups, whereas Jacobs and Maas (1969) base their predictions on a "relative change" hypothesis. An experiment designed to test these two competing hypotheses could easily be performed.

The results shown in Table V indicating the mean self-esteem scores of various groups suggest a final possibility for research. It is possible that self-esteem changes with experience and age. Either some type of longitudinal study measuring self-esteem at various points in time could be performed or perhaps a partial correlation study analyzing the relationship between age and self-esteem scores with age held constant could be designed. It will be recalled that such a design was proposed in the present study for self-esteem and "intelligence." Self-esteem may vary predictably not only as a function of age or intelligence, but perhaps also as a function of income, grade point average or any or a myriad of variables.

## REFERENCES

- Aronson, Elliot, and Carlsmith, J. Merrill. Performance Expectancy as a Determinant of Actual Performance. Journal of Abnormal and Social Psychology, 1962, 65 (3), 178-182.
- Cline, Victor B., Richards, James M., Jr., and Abe, Clifford. The Validity of a Battery of Creativity Tests in a High School Sample. Educational and Psychological Measurement, 1962, 22, 78-84.
- Cline, Victor B., Richards, James M., Jr., and Needham, Walter. Creativity Tests and Achievement in High School Science. Journal of Applied Psychology, 1963, 47 (3), 184-189.
- Diggory, James C. Self-Evaluation (New York: John Wiley and Sons, Inc.), 1966, pp. 203 and 259.
- Festinger, Leon. A Theory of Cognitive Dissonance (Stanford, Cal.: Stanford University Press), 1957.
- Ghiselli, Edwin E., Explorations in Managerial Talent, (Pacific Palisades, Cal.: Goodyear Publishing Co., Inc.), 1971.
- Jacobs, Alfred, and Maas, Jeannette. Changes in Self-estimates of Psychological Attributes as a Function of the Direction of Discrepancies Between Initial Estimates and Reported Test Scores. Psychological Reports, 1969, 25, 358-362.
- Kaufman, Harry. Task Performance and Responses to Failure as Functions of Imbalance in the Self-Concept. Psychological Monographs, General and Applied, 1963, 569.
- Kirk, Roger E. Experimental Design Procedure for the Behavioral Sciences (Belmont, Cal: Brooks/Cole Publishing Co.), 1968, pp. 201-204.
- Korman, Abraham K. Self-Esteem Variable in Vocational Choice. Journal of Applied Psychology, 1966, 50, 479-486.
- Korman, Abraham K. Self-Esteem as a Moderator of the Relationship Between Self-Perceived Abilities and Vocational Choice. Journal of Applied Psychology, 1967(a), 51, 65-67.

- Korman, Abraham K. Relevance of Personal Need Satisfaction for Overall Satisfaction as a Function of Self-Esteem. Journal of Applied Psychology, 1967(b), 51, 533-538.
- Korman, Abraham K. Task Success, Task Popularity, and Self-Esteem as Influences on Task Liking. Journal of Applied Psychology, 1968, 52, 484-489.
- Korman, Abraham K. Toward An Hypothesis of Work Behavior. Journal of Applied Psychology, 1970, 54, 31-41.
- Korman, Abraham K. Industrial and Organizational Psychology (Englewood Cliffs, N.J.: Prentice-Hall, Inc.), 1971.
- Lecky, Prescott. (Edited by Frederick C. Throne). Self-Consistency: A Theory of Personality (New York: The Shoe String Press, Inc.), 1961.
- Stedry, Andrew C. and Kay, Emanuel. The Effects of Goal Difficulty of Performance. Behavioral Sciences, 1966, 11, 459-470.
- Tannenbaum, A. Control in Organizations: Individual Adjustment and Organizational Performance. Administrative Science Quarterly, 1962, 7, 236-257.
- Vroom, Victor H. Work and Motivation (New York: Wiley), 1964.
- Zajonc, Robert R. The Concepts of Balance, Congruity, and Dissonance. Public Opinion Quarterly, 1960, 24, 280-296.
- Ziller, Robert C., Hagey, Joan, Smith, Mary, and Long, Barbara. Self-Esteem: A Self-Social Construct. Journal of Consulting and Clinical Psychology, 1969, 33(1), 84-95.