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Achievement Motivation and Achievement: The Role of Locus of Control

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The status of locus of control as a moderator of the relation of resultant achievement motivation to achievement was investigated for a sample of females. Locus of control was found to moderate resultant achievement motivation in predicting academic achievement for females. The conclusions to be drawn from these data are not clear since the sample of females was predominantly internal in beliefs about the control of reinforcement. The implications of the definition of internality/externality for future research on this question are discussed.
INDEX DESCRIPTORS: Achievement, locus of control, internality/externality, resultant achievement motivation.

The prediction of academic achievement has been the concern of two approaches to personality in recent years. The theory of resultant achievement motivation (Atkinson, 1964) and the social learning theory of Rotter (1966) are both concerned with the determinants of achievement. For example, achievement theory suggests that those who are high in hope of success relative to fear of failure should be more active in their attempts to achieve and should also achieve highly in skill situations such as the classroom. Likewise, social learning theory suggests that the pursuit of excellence should characterize those who believe they control the reinforcement in their lives relative to those who do not have such a belief.

Although social learning theory attempts to predict behavior from a complex of variables including specific expectancies, reinforcement values, and situational factors, many researchers in the area have suggested that the internal-external locus of control variable is itself a determinant of achievement. For example, Wolk and DuCette (1973) have suggested that the locus of control variable moderates the effects of resultant achievement motivation on academic achievement. Specifically, it was demonstrated by Wolk and DuCette (1973) that resultant achievement motivation (hope of success minus fear of failure) is related to achievement behavior only for males who scored at the internal end of the I-E scale developed by Rotter (1966).

This study was an attempt to extend the above line of reasoning to females. Given the tremendous amount of research devoted to predicting achievement for males with the generalized expectancy locus of control (see Throop & MacDonald, 1971; Procuik & Lussier, 1975; or Phares 1976 for extensive bibliographies) and resultant achievement motivation (see Atkinson & Raynor, 1975), a determination of the relation of achievement in females to locus of control and resultant/achievement motivation would seem important. Thus the present investigation is concerned with the prediction of academic achievement for females using locus of control or resultant achievement motivation alone, and the two together. An exact replication of Wolk and DuCette's (1973) procedure was intended with an extension to the population of female college students. On the basis of Wolk and DuCette's (1973) findings for males it was predicted that a positive correlation between resultant achievement motivation and achievement would be found for internal females, but not for external females.

METHOD

Subjects

The participants were 38 female volunteers enrolled in a course in Social/Personality Psychology.

Personality Measures

Two weeks before the end of classes, a questionnaire was given out in class by a graduate student who told the class that she was interested in describing the types of students attending this university. The ques-

tionnaire included the 26 item female version of the Mehrabian (1968) Scale of Resultant Achievement Motivation (RAM) and the Rotter (1966) Locus of Control Scale (I-E). Responses to the RAM items were made using a 1 (very strong disagreement) to 9 (very strong agreement) scale. Responses to the I-E items were made in the usual forced choice manner. The I-E scale was scored in the external direction.

Academic Achievement Measures

The measures of academic achievement consisted of number of points earned in the course out of a total possible of 200 and the grade earned in the course. Points were earned by taking 7, 20-point unit exams given every two weeks. The exams were composed of ¼ multiple choice, ¼ true-false, ¼ matching, and ¼ short answer questions. In addition to the unit exams, there was a 25 point book report, and a 35 point cumulative final composed of one question of each kind from each unit exam. The book reports and short answer responses were independently scored by two graders who evidenced an inter-scoring reliability of .90. Grades were assigned on a percentage basis: 90-100% = A, 80-89% = B, 70-79% = C, 60-69% = D, and 59% and below = F.

RESULTS

Problems with the Definition of Internality/Externality

An attempt was made to define internals as those subjects obtaining an I-E score of 9 or below and externals as those obtaining an I-E score of 13 and above as Wolk and DuCette (1973) had done. Unfortunately, only 3 externals were found in the total sample of 38 using this procedure. Thus, correlations of the personality and academic achievement measures could not be calculated separately for internals and externals following Wolk and DuCette's (1973) procedure.

Table 1. Correlations of Resultant Achievement Motivation (RAM) with Achievement Activities for Internals, Externals, and the Complete Sample

		POINTS	GRADE
Internals	RAM	.44*	.59***
	Points	—	.64***
Externals	RAM	.08	-.19
	Points	—	.25
Total	RAM	.37**	.27**
	Points	—	.56

* p .10

** p .05

*** p .01

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The Moderating Influence of Locus of Control

Correlations among the achievement variables and RAM are presented in Table 1. Sub-group analysis was used to determine if the relation of RAM to achievement was moderated by IE. The RAM-achievement correlations were computed for the total sample, for internals only, and for externals only. Subjects were classified as internal or external on the basis of a median split.

DISCUSSION

Although the procedure of Wolk and DuCETTE (1973) could not be followed exactly due to a lack of externals in the sample, their results were replicated. The weak correlation of RAM to achievement for the total sample became a strong positive correlation for the internals. However, the conditions under which locus of control will moderate the prediction of achievement behavior by resultant achievement motivation are not simple. First, as Rotter (1966) has pointed out, in a highly structured situation such as the classroom, externals may behave like internals. As with any personality variable, strong situational cues may obscure the influence of a generalized expectancy such as locus of control; especially since Rotter (1966) purposely designed the I-E scale as a weak predictor of behavior in any one situation. Second, some individuals who are high in resultant achievement motivation have a low expectation for success, leading them to defensively verbalize beliefs that they are not in control of their achievement level (Rotter, 1975). In social learning terms, the specific expectancy overrides the generalized expectancy in the assessment phase of research. Third, 14-26 percent of the individuals classified as external by the I-E scale behave more like internals in that their performance in experiments concerning achievement resembles internals. This apparent misclassification probably contributes to the finding from previous research that externals are more variable in their level of achievement compared to internals.

Fourth, and finally, the operational definition of internality/externality must be carefully considered. An inspection of the literature indicates that at least two different definitions of internality/externality have been employed. Although Rotter's (1966) I-E scale is typically employed, Rotter's (1966) definition of internality/externality is many times not followed. This definition involves defining internals as those individuals who obtain a score of 9 or below on the I-E scale, with

externals defined as those individuals who obtain a score of 13 and above on the same scale. This procedure was followed by Wolk and DuCETTE (1973) along with a college population. A second definition of internality/externality involves splitting the distribution of scores from the I-E scale at the median with those individuals scoring above the median classified as externals and those scoring below classified as internals as was done in the present investigation. The difference in definition of internality/externality becomes important when one considers the fact that college populations tend to be composed of internals if one follows Rotter's procedure for classifying individuals as internal or external. The correlation of I-E and achievement in this sample was $r(36) = .27$, $p < .05$ on grades as would be expected for a sample of internals. These differences in the definition of internality/externality need to be considered in future research.

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