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ABSTRACT

Research has found that, in many performance situations, attributions of success and failure may reflect numerous experiences occurring over time. To expand this research, achievement attributions in an extended ego-involving situation, i.e., performance in an academic course, were examined. In addition to the traditional causes of effort, ability, luck, and task difficulty, students (N=114) in math and psychology courses were asked for attributions concerning teacher's performance and interest in the course. Questionnaires about perceptions of and reasons for their performance in the course were presented to the students late in the semester. The highest attributions for performance were made to effort, teacher's performance, and interest. Successful students made higher attributions to teacher's performance, effort, ability, and interest. Correlational analyses indicated that for males, attributions to ability increased with perceived success: for females, attributions to interest and effort were correlated with perceived success. The results demonstrate that attributions for extended performance in an academic course are similar to those made in less ego-involving tasks. (Author/NRB)

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Attributions of Achievement for

Academic Achievement: A Field Study

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Attributions of Achievement for Academic Achievement: A Field Study

In recent years there has been a plethora of research on the attribution of success and failure in achievement situations. This process has typically been studied utilizing either experimentally manipulated tasks (Bar Tal & Freize, 1976; Deaux & Farris, 1977; Fether and Simon, 1971) or hypothetical situations (Freize, 1976). A very small number of recent investigations have looked at the process in relationship to perceived success and failure on a college course examination (Arkin & Maruyama, 1979; Giimor & Reid, 1979; Simon & Feather, 1973). These studies reveal the process in a more realistic and ego-involving situation, however, they still focus on a single task outcome. Weiner (1979) suggests that in many performance situations the attributions may summarize a number of experiences occurring over a period of time. In line with this suggestion, this study focuses on achievement attributions in an extended ego-involving situation, performance in an academic course.

Much of the attribution research has been guided by the assumption that in most achievement situations the causes which are perceived as responsible for success or failure are ability, effort, task difficulty and luck (Weiner, 1979). These causes have been interpreted as representing attributional dimensions of locus, internal vs. external, and stability, stable vs. unstable. Effort and ability are interanl, while task difficulty and luck are external. Ability and task difficulty are



Effort is difficult to classify because it may be interpreted as a temporary state or a stable trait. Gilmor and Reid (1979) found that students making attributions about exam performance perceived effort as stable. The typical strategy employed in studying achievement attributions has been to measure attribution to only the four basic causes. Elig and Freize (1979) have questioned this practice, because in responding to an open ended format subjects frequently mention additional causes such as other people, interest, and mood.

In general, success and failure outcomes tend to produce different attributions. Zuckerman (1979) recently found that in 71% of the studies he reviewed more internal, ability and effort, attributions were made for success than failure. Studies have also found a tendency for more stable attributions following success than failure (Arkin & Maruyama, 1979; Freize, 1976; Miller, 1976). The findings of studies utilizing academic performance are consistent with the laboratory studies. Gilmor and Reid (1979) found that students who perceived themselves as successful on a college exam attributed their success more to ability and effort, while students who perceived their performance as failures attributed more to the task. In a similar study, Arkin and Maruyama (1979) found that successful students made more internal attributions for their own performanca. The tendency to make more internal attributions following success and more external ones following failure has been interpreted in terms of a self-serving bias, providing enhancement and protection of self-esteem respectively (Zuckerman, 1979).

Studies on sex differences in attribution of achievment have produced



mixed results. Some studies have found no sex differences (Feather and Simon, 1971; Miller, 1976). Other studies have shown that men tend to attribute their success to ability, while women tend to make more attributions to luck (Bar Tal & Freize, 1976; Deaux & Farris, 1977; Simon and Feather, 1973), task difficulty (Simon & Feather, 1973) or effort (Feldman-Sumners & Keisler, 1974). These findings seem to indicate a tendency for females to make external and unstable attributions which may block self-enhancement and the raising of expectations following success.

A major goal of this study was to expand the research on attribution of achievement to an extended ego-involving situation. Students were asked to make attributions concerning their performance in an academic course. This type of attribution should involve summarizing a number of experiences over the semester. It was hypothesized that successful students would make more internal attributions than unsuccessful students. Male students were expected to produce more internal attributions for success than female students.

A second goal was to investigate the importance of causes not traditionally included in attribution studies. Based on the work of Freize and her associates (Elig & Freize, 1979; Freize, 1976; Freize & Snyder, 1980) it was assumed that teacher's performance and interest in the course content might be seen as important causes of academic achievement. Freize (1976) found that subjects making attributions about academic situations were most likely to request information about the teacher when the outcome was failure. This suggests unsuccessful students might tend to use attributions to the teacher as a self-protective device.



Method

The subjects were 74 female and 40 male undergraduates enrolled in math and psychology courses. The classes were selected to provide a range of course difficulty. A questionnaire was presented to the students during a scheduled class period late in the semester. The students were asked for their perceptions for that particular class, regarding the course difficulty, their success in mastering the course, the reasons for their success. All items were on a 7-point scale. The attribution items included the four traditional causes plus the teacher's performance, and interest in the course content.

Results

A general look at the means of the attribution items revealed that the highest attributions for performance were made to effort ($\underline{M}=5.45$), teacher's performance ($\underline{M}=5.37$), and interest in the course ($\underline{M}=5.10$). Ability ($\underline{M}=4.34$) and task difficulty ($\underline{M}=4.0$) received only moderate attributions for performance, while luck ($\underline{M}=1.76$) received the lowest ratings.

The subjects were separated into success and failure groups based upon their response to the item concerning their perception of successful mastery of the course. Respondents above the median were included in the success group (N = 53), those falling at or below the median were included in the failure group (N = 62). This division avoided subject loss and maintained a relative balance in group size.

Each of the six attribution items were analyzed with a 2-way ANOVA using sex and success as the factors. There was a significant main effect



for success on the attributions to teacher's performance F(1, 111) = 27.96, p < .001, effort F(1, 111) = 5.28, p < .05 ability F(1, 111) = 4.33, p < .05 and interest in the course F(1, 111) = 8.33, p < .011. Inspection of the means presented in Table 1 reveals that for each of these items higher attributions were made for success than for failure. The largest difference between means occurred in the attributions to the teacher's performance. There were no other significant main effects or interactions.

Separate correlations between the students perception of success and each of the attribution items were conducted for males and females. For both males and females attributions to the teacher's performance increased with increasing success, $\underline{r}=.58$, p<.01 and $\underline{r}=.59$, p<.01 respectively. Males also increased attributions to ability with success, $\underline{r}=.31$, $\underline{p}<.05$, however, females did not, $\underline{r}=.06$. For females attributions to both effort, $\underline{r}=.25$, $\underline{p}<.05$ and interest, $\underline{r}=.24$, $\underline{p}<.05$ were significantly correlated with success.

Discussion

The findings of this study seem to indicate that the attributions made for extended performance in an academic course are quite similar to those made in short term and less ego-involving achievement tasks. The overall finding that students made the highest attributions to effort and the lowest to luck are consistent with the findings in much of the achievement research (Weiner, 1979). The fact that teacher's performance and interest in the course received attributions at about the same level as effort supports Elig and Freize's (1979) contention that additional causes should be included. The teacher's performance may be considered an external-unstable cause; while interest may be seen as an internal-



unstable cause. The students in this study made higher attributions to these unstable causes than to the internal stable cause, ability. Following Weiner's (1979) theory of motivation this would suggest that academic achievements in a particular class should have little effect on general expectations about academic performance.

Consistent with previous attributional findings (Arkin & Maruyama, 1979; Gilmor & Reid, 1979; Zuckerman, 1979) successful students attributed more of their performance to effort and ability than unsuccessful students. The successful students also made higher attributions to teacher' performance and interest, indicating perhaps a general proclivity toward making attributions. This is somewhat unexpected, given the evidence cited by Weiner (1979) that failure often leads to a greater tendency to seek information and make attributions.

The increase in attributions to the teacher's performance by the successful students deserves special consideration. The largest difference between the successful and the unsuccessful groups occurred on this item. The findings in relationship to the teacher's performance are contrary to a self-serving bias. Successful students do not anpear to be enhancing their self-esteem since their highest attribution is to the teacher's performance. Contrary to our original expectations, there appears to be no tendency for the unsuccessful students to engage in self-protection by blaming the teacher. These findings may also have some implications for teacher ratings. There may be a tendency for successful students to rate teachers high since they are seen as important causes of the student's success.

The evidence for sex differences in attributing academic achievement



is mixed. There was no evidence for a sex difference in the analysis of variance; however, there was some support in the correlational data. There was a significant relationship between the way males perceived success and their attributions to ability. For females, increasing success led to attributions to more unstable factors, effort and interest. These findings are consistent with earlier studies which have shown a greater tendency for men to make ability attributions while women make more unstable attributions (Bar Tal & Freize, 1976; Deaux & Farris, 1977). Such & sex-difference may imply that males would be more likely to change their expectancies following an academic success than females.



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Table 1

Means and Standard Deviations for Attribution

of Success and Failure

	Success	Failure
Teacher's performance	m 6.09	M 4.74
•	sd .88	sd 1.67
Effort	M 5.70	M 5.22
	sd .89	sd 1.22
Ability	M 4.62	M 4.10
,	sd 1.42	sd 1.28
Interest	M 5.49	M 4.77
	sd 1.37	sd 1.29
A .		
Course difficulty	м 3.92	M 4.26
	sd 1.47	sd 1.45
Luck	м 1.77	M 1.74
	sd 1.23	sd 1.19

