Teacher Attributions of Student Performance:
Effects of Outcome

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Teacher attributions for elementary school students' successful and unsuccessful performances in real classrooms were assessed during three different times of the school year. Results suggest that practicing teachers' explanations of their own students' performances follow patterns consistent with earlier research on attribution processes.

Among the many areas to which attribution theory has been applied, one of the most important involves teacher attributions for student performance (see Cooper, 1979; Weiner, 1976). Unfortunately, most of the research in this area has been limited to laboratory investigations in which the subject plays the role of a teacher while a confederate plays the role of a successful or failing student.

The research employing role-playing teachers or students not only suffers from inconclusive findings (Zuckerman, 1979; Arkin, Cooper, & Kolditz, 1980), but there are also reasons to question whether these findings are applicable to actual classroom settings. It has been argued (see, for example, Cooper & Lowe, 1977) that a different set of motives may be present for real teachers and students working together on a continuing basis from that present in the typical laboratory situation. Teacher concerns for overall classroom progress, discipline maintenance, and productivity of future interactions with the student are not present in the laboratory setting. Further, Heider (1958) suggested that distortions in perceptions of causality are most likely to occur in situations in which the attributor has limited information about the covariation of relevant events. Thus, while role-players in short studies may provide evidence of attributional distortions (see, for example, Ross, Bierbrauer, & Polly, 1974), it is

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not at all clear that teachers, after observing hundreds of performances for each student, will exhibit similar attribution patterns.

The purpose of this study was (a) to examine the attributions of practicing teachers for the successes and failures of students in their own classrooms and (b) to measure attributions at three times of the school year, so the influence of familiarity on causal judgments could be assessed. Also, attributions were examined separately for students with relatively high, average, and low rates of expected success.

METHOD

Participants

Seventeen teachers, all female, were participants. Teachers taught third-, fourth-, or fifth-grade classrooms in five different schools serving a midwestern community of approximately 90,000. All schools were in middle- to lower-middle class neighborhoods. All teachers were volunteers participating in a larger study for which they received $50 for time spent out of class. Only students whose parents gave permission (about 60%) were included.

Procedure

Rate of Success Measurement. Teachers were asked to rank consenting students according to the students' "probable success at verbal tasks" and their "general academic potential." The rankings correlated .84. The two lists were averaged to arrive at a final ranking. Males and females were then separately divided into high-, average-, and low-rate-of-success groups based upon these rankings. Two males and two females were randomly chosen from each of the groups. These 12 students comprised the 12 target students from each of the 17 teachers. In total, information was collected for 204 students.

Attribution Measurement. To assess teachers' attributions of these students' successes and failures, each teacher was given an open-ended attribution questionnaire (Cooper & Burger, 1980). The questionnaire was completed at three times during the school year, in November, February, and May. Expected success rates were reassessed at concurrent intervals. These revealed the initial high, average, and low distinctions remained valid throughout the year.

The attribution questionnaire asked teachers to list separately for each student the reasons for the student's academic successes and failures. The teachers were free to list as many reasons as they felt genuinely applied. The teachers were then asked to provide the percentage of time each of the reasons listed applied to the success or failure of the student. Two scorers then placed the teacher responses into one of 12 attribution categories, as defined by Cooper and

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Burger (1980). The 12 categories were ability, previous experience, acquired characteristics (habits, attitudes), stable effort, interest in the subject matter, immediate effort, attention, physiological processes (mood, health), directions or instructions, the task, family background, and other students. The scorers were kept blind to the student's expected rate of success. Interrater reliabilities, as indicated by Cohen's Kappa coefficients, were .89, .77, and .86 for the three administration periods. When the original coders disagreed on the coding of an item, a third rater was used to determine classification.

Data Analysis. The percentages of outcomes attributed to each causal category were the dependent variables. The physiological processes category was dropped due to its infrequent use. Three MANOVAs were used to initially analyze the data. One MANOVA contained internal stable attributions (ability, previous experience, acquired characteristics); another, effort-related attributions (stable effort, interest in the subject matter, immediate effort, attention); and the third, external attributions (directions or instructions, task, family background, other students). Each MANOVA treated the teacher as the unit of analysis (n = 17) and the students as repeated stimuli presented to teachers. Stimulus student differences were used to form a complete within-teacher crossing of expected student success rate (high/average/low), specific performance outcome (success/failure) and the time of school year (November/February/May). Only those effects that produced significant multivariate F values were examined with univariate F tests.

RESULTS

In general, internal factors were cited more often than external factors for student successes (internal = 73.2% versus external = 26.6%) as well as for student failures (internal = 52.7% versus external = 42.5%). Table 1 provides the means and F values for the seven categories for which the outcome main effects reached or approached significance ($p < .10$) on both the multivariate and univariate testings. Significant interactions between outcome and expected rate of success were found for six of the attribution categories. These are listed in Table 2.

Two attributions were influenced by the time of the school year. Ability was cited as the cause of student performance more often in November (M = 13.7%) and February (M = 13.3%) than May (M = 8.9%); F (1, 30) = 4.85, $p < .04$. An opposite linear trend was found for the acquired characteristics percentage in November (M = 7.7%), February (M = 9.7%), and May (M = 14.8%); F (1, 30) = 11.45, $p < .002$.

Finally, significant effects were found for two of the attribution categories when performance outcome was crossed with time of year. The diminishing use of ability attributions as the school year progressed appeared specific to success outcomes (November M = 21.3%, February M = 19.7%, and May M = 12.8% for success; November = 6.2%, February = 7.0%, and May = 5.0% for failure); F (2, 30) = 4.44, $p < .02$. The task was cited more frequently for successful outcomes

TABLE 1   Relations of Performance Outcome and Percentage
           of Causal Attribution Citations

| | Performance Outcome | | | |
Attribution	Success	Failure	F	P
Ability	17.9	6.1	9.53	.001
Stable effort	13.8	3.2	16.98	.001
Subject matter	7.5	4.0	4.19	.06
Immediate effort	16.6	25.1	10.90	.005
Attention	10.2	16.0	6.85	.02
Directions and instruction	7.4	13.0	15.72	.002
Other students	2.0	4.1	3.92	.07

Note: df = 1, 15.

in May (8.9%) than in November (4.5%) and February (4.4%), and more frequently for unsuccessful outcomes in November (11.7%) than in February (4.1%) and May (9.7%); F (2, 30) = 3.86, p < .03. No other effects proved significant.

DISCUSSION

The results of the present investigation suggest that teachers' explanations for student successes and failures appear to follow several attribution patterns found in earlier research using different populations and settings. That internal causes were used more frequently than external causes may illustrate the "fundamental attribution error" (Ross, 1977). When examined for evidence of self-serving biases (see Zuckerman, 1979), conflicting patterns emerge in the data. Whereas teachers cited directions and instruction more often for failure than for success (suggesting a counterdefensive attributional pattern), attention and immediate effort are also cited more for failure than success (suggesting a self-serving pattern).

Also similar to past research, expected outcomes (success for high-expectation students and failure for low-expectation students) are more often attributed to internal stable factors (ability, acquired characteristics, stable effort) than are unexpected outcomes. Conversely, unexpected outcomes are attributed more to unstable factors (immediate effort, directions and instruction) than are expected outcomes. These findings are consistent with attributional patterns found in other settings (see Miller & Ross, 1975).

In an extension of past research, this study found a diminishing use of ability attributions and an increasing use of acquired characteristic explanations as the year progressed. Teachers may, as the year progresses, see habits and attitudes acquired in their own class replacing the student's innate abilities as causes of performance. This interpretation has intuitive appeal because as exposure to

TABLE 2   Relations of Causal Attribution Citations to Level of
Expectation in Interaction with Performance Outcome

| Attribution | Performance Outcome | | | | | |
| | Success | | | Failure | | |
	High	Average	Low	High	Average	Low
Ability (.001)	23.0$_a$	20.1$_a$	10.7$_b$	2.8$_c$	4.8$_{b,c}$	10.7$_b$
Acquired characteristics (.02)	13.3$_a$	13.3$_a$	7.9$_b$	4.7$_b$	7.7$_b$	12.5$_a$
Stable effort (.04)	16.1$_a$	12.6$_a$	12.7$_a$	2.0$_b$	3.5$_b$	4.1$_b$
Subject matter (.02)	7.2$_d$	8.1$_{a,b}$	7.3$_{b,c}$	5.7$_c$	4.5$_c$	1.7$_d$
Immediate effort (.07)	17.6$_c$	16.5$_c$	15.7$_c$	26.5$_a$	27.4$_a$	21.2$_b$
Directions and instructions (.006)	2.6$_c$	5.6$_b$	14.0$_a$	16.3$_a$	12.2$_{a,b}$	10.4$_{a,b,c}$

Note: p levels for each attribution are presented in parentheses; df = 2, 30. Means not sharing a common subscript differ significantly (p $<$ .05) by Newman-Keuls comparisons.

another lengthens, a dyad member has observed more new behaviors emerge in the other.

Finally, support was uncovered for the "low-expectancy cycle" of teacher attributions (Weiner, 1976). That is, high-success-rate students' successes tended to be attributed more often than low-success-rate students' successes to stable internal characteristics (such as ability, acquired characteristics, and stable effort). Conversely, low-success-rate students' failures were attributed to these sources more often than were high-success-rate students' failures. This finding suggests that students for whom teachers hold low academic expectations may have difficulty altering those expectations, especially when they first begin to succeed.

Whether these attributions reflect motivational biases, information-processing distortions, or veridical perceptions of the causes of student performance awaits further investigation. However, the results of the present investigation establish the generalizability of several previous results to teacher attributions in naturally occurring classrooms.

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