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TEMPORAL EFFECTS ON ATTRIBUTIONS: ACTOR AND OBSERVER DIFFERENCES

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Actors' and observers' attributions for performance on an ability test were assessed. Half of the actors were told they had performed well on the test, and half that they had performed poorly. In addition, half of the subjects gave their attributions immediately after the test, and half 3 days later. As predicted, actors who believed they had been successful gave attributions that were more dispositional 3 days after the test than when asked immediately afterward. Actors who believed they had failed gave attributions that were more situational 3 days later than immediately afterward. Observers gave attributions that did not differ over time. The results are interpreted in support of a motivational explanation for temporal effects on actors' attributions.

For more than two decades now, researchers have examined in depth the ways in which people go about making causal attributions for the events in their lives. The popularity of research on attribution processes has increased as investigators from a variety of applied areas have found that how a person explains what happens to him or her is important in predicting that individual's behavior in a variety of areas. For example, how people explain their performance at an achievement task can result in increased or decreased effort on future tasks (Weiner *et al.*, 1971). Similarly, the attributions people make for uncontrollable events have been tied to how depressed they become following the event (Abramson, Seligman, & Teasdale, 1978).

But how people explain events today may not be the same as how they explain them next week. Because most of the applied areas utilizing attributional concepts typically deal with events or phenomena that take place over an extended period of time, it is especially important that we understand how attributions change as time passes. However, early attempts to examine temporal effects on causal attributions produced inconsistent findings. Some studies found that people tended to give themselves more credit for events over time (Burger & Rodman, 1983; Moore, Sherrod, Liu, & Underwood, 1979), while others found that people tended to attribute causality more to the situation over time (Funder & Van Ness, 1983; Miller & Porter, 1980).

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An examination of these conflicting studies finds differences in tasks, methods of assessing attributions, and the extent of public surveillance, among others. However, as we (Burger & Huntzinger, 1985) have concluded, no variable clearly emerges from these studies to account for the conflicting pattern of results. On the other hand, we did identify one variable that appeared to be unmanipulated in this research and that might have been responsible for influencing the results: the perception of success or failure on the experimental task. Unfortunately, data were not collected that might have helped to determine whether this outcome variable could account for the pattern of results from the previous studies. However, it is possible that subjects' perceptions that they had either succeeded or failed on a task (e.g., an anagram task, a debate, the Prisoner's Dilemma game) could have interacted with the passage of time to affect the subjects' attributions for their performance.

In our examination of this possibility, we (Burger & Huntzinger, 1985) found in two experiments that people gave attributions for their performances that became more dispositional (personal) over time when the outcome of an experimental task was perceived as a success. When the task outcome was seen as a failure, people became more situational in their attributions over the course of 3 or 4 days. We explained this interaction in terms of an esteem-enhancing motivational distortion. That is, over time people will recall flattering attributions and forget unflattering ones. Hence, successful subjects are more likely to remember personal attributions for their performances, and failing subjects are more likely to remember situational reasons as time passes. In support of this reasoning, we found that subjects were less able to recall the unflattering reasons for their performances 3 days later when specifically asked to describe the personal and situational influences on their performance.

In the first of a pair of follow-up studies (Burger, 1985), it was found that students in an introductory psychology class gave attributions for a successful midterm exam that became more dispositional over a 4-day period, while the failing subjects gave attributions that became more situational. The second investigation found that students gave attributions for the basketball team's victory that became more dispositional

over a 3-day period. This was explained in terms of the students' forming a unit relationship with the victorious team and therefore utilizing the esteem-enhancing recall patterns found in the other investigations. Taken together, these studies suggest that task outcome has an important and consistent effect on attributions for one's own behavior over time.

A reasonable next step in this research is the examination of how attributions change over time when explaining someone else's behavior. A large actor–observer literature indicates that how individuals explain their own behaviors can be very different from the way others explain them (cf. Jones & Nisbett, 1971; Watson, 1982). For example, actors and observers have been found to differ in their focus of attention, and hence in the perceptual salience of various features in the situation. Actors and observers also differ in the knowledge they have about the actors' past performances and in their degree of esteem-enhancing motivation. Because actors and observers differ in these important ways, comparing the attributional patterns of actors and observers should provide a greater understanding of the mechanisms underlying the previously uncovered effects of time and outcome. More specifically, if, as we (Burger & Huntzinger, 1985) propose, changes in actors' attributions over time are the result of esteem-enhancing motives, then one would not expect to find a similar pattern of changes for observers, who have no apparent reason to selectively forget certain types of attributions about the actors' performance. In the only study providing information on this point to date (Burger, 1985, Experiment 2), it was found that students exhibited the esteem-enhancing pattern over time when their basketball team won, but did not when the team lost. The students presumably formed a unit relationship with the winning team and therefore were motivated to protect their self-esteem. On the other hand, because actors and observers differ in cognitive as well as motivational ways from each other, the problem of teasing apart the cognition–motivation confound probably, as always, will be quite difficult.

In addition, there are some important applied reasons to better understand how attributions for others change over time. Many situations call for people—employers, teachers, psychotherapists—to make judgments about the causes of other persons' behavior. It has been found, for example, that the attributions teachers make for their students' performances can have an impact on future interactions with the children and perhaps the students' later performance in class (Cooper & Good, 1983). Understanding how these attributions change over time will allow for a greater understanding of these applied phenomena.

In the present investigation, actors' and observers' attributions

were assessed for either a successful or an unsuccessful performance, either immediately or 3 days after the task. It was predicted that actors would make attributions that became more dispositional over time when they were successful and more situational when unsuccessful, thus replicating the earlier findings. However, it was predicted that observers, who would not have this need to recall the performance in a self-flattering way, would make attributions that became neither more situational nor more dispositional over time as a function of task outcome.

METHOD

SUBJECTS

A total of 84 female undergraduates served as subjects in exchange for class credit. Of these, 4 were dropped from the study because they did not return for the second half of the experiment, leaving 80 subjects in the final sample.

PROCEDURE

The procedures for the experiment were taken largely from those of the Burger and Huntzinger (1985) study. Subjects signed up for the experiment in pairs, with the understanding at the time of recruitment (later verified by the experimenter) that the two did not know each other. It was explained that the experimenter was interested in assessing individual differences in an ability identified as "manual dexterity and cognitive perception coordination." Subjects were told that one of them would be taking a standardized test to measure this ability. They were also told that the researchers were interested in identifying any noticeable differences in the way people who were high and low in this ability went about working on the problems. Therefore, the other subject's task would be to observe the first subject and report her observations.

Subjects then drew a slip of paper from two presented by the experimenter, which assigned them to either the "worker" (actor) or "observer" role. Subjects were seated across from each other at a table, approximately 1 meter apart. The experimenter sat between the subjects at the end of the table, also approximately 1 meter from each of them. The experimenter then administered the test to the actor. The observer was instructed to observe quietly and not to help the actor. The test

consisted of arranging colored sticks (approximately 23 centimeters long) on the tabletop to match a geometric design presented by the experimenter in shape and color. When the subject completed a design, she was instructed to take the sticks apart and work on the next design presented by the experimenter. When the subject reached the third stick on the fourth design (approximately 5 minutes after beginning the test), the experimenter announced that her time was up. The experimenter then quickly counted the total number of sticks the subject had successfully used during the test, which always came to 45.

At that point, the experimenter asked the worker whether she would like to compare her score with some norms the experimenter had available. All subjects said they would. The experimenter, who had been blind to the outcome manipulation up to this point, quickly glanced at a table that randomly assigned subjects to either the success or failure condition. In the success condition, subjects were presented with a norm table that identified a score of 45 for a college-age female as falling on the 85th percentile. The experimenter pointed to the score on the chart so that both subjects could see it and explained that this meant the worker had done better than 85% of the people who had taken the test. In the failure condition, the experimenter presented a chart which identified a score of 45 as falling on the 15th percentile, and again explained what this meant.

Subjects in the immediate condition, who had signed up for one session only, were then separated and given the experimental questionnaire. The two subjects were placed in separate rooms, and each was assured that the partner would not see the responses. The subjects received identical questionnaires, with the exception that the worker/actor's questions were worded to inquire about her performance and the observer's questions were worded to inquire about the worker/actor's performance.

After a few filler items, the questionnaire asked subjects to indicate on an 11-point scale the extent to which they believed the worker had done well on the test, relative to most college students. Next, subjects were asked to list "as many reasons as you feel apply for [your/the worker's] performance (the test score). That is, why did [you/the worker] score as high or as low as [you/she] did?" Space was provided for six reasons, but subjects were told to list only those reasons they felt genuinely applied. Subjects then were instructed to go back to their list and divide 100 points among the responses to indicate the relative importance of each in explaining the performance. That is, if a response accounted for half of the performance, a value of 50 was assigned to it. This method of assessing attributions, taken from the Burger and Huntzinger (1985) study, was used to reduce the problem of suggesting

responses to subjects that they might not have generated themselves (Elig & Frieze, 1979).

Next, subjects' attributions were assessed with two 11-point scales. Subjects were asked to indicate the extent to which the performance was the result of "personal factors, such as [your/the worker's] level of ability . . . or level of effort." Subjects also were asked the extent to which the performance was the result of "situational factors, such as the environment the test was taken in, the directions, or the materials."

Subjects in the delayed condition had signed up for the experiment with the understanding that it consisted of two sessions. These subjects completed the questionnaires when they returned 3 days later.

RESULTS

MANIPULATION CHECK

Subjects were asked the extent to which the actor had performed well on the test relative to most college students. It was found that subjects in the success condition ($M=8.20$) rated the actor's performance as better than subjects in the failure condition ($M=4.02$), $F(1, 72)=277.96$, $p<.001$. No other independent variables affected this measure significantly. Thus, the manipulation of the outcome variable appeared to be successful.

OPEN-ENDED ATTRIBUTIONS

Subjects' responses on the open-ended attribution question were coded independently by two trained judges blind to experimental condition. The judges coded each response as either dispositional (e.g., the actor's ability, her effort) or situational (e.g., the directions, the materials). The judges agreed on 92% of the codings. Where disagreements occurred, I determined the coding, also blind to condition. The values subjects had assigned to each of the responses were then totaled for the responses coded as dispositional. This resulted in a score indicating the percentage of the performance subjects perceived as caused by dispositional sources. Because all responses were coded, calculating a score for the situational responses would have provided redundant information.

The dispositional percentage score was first examined within a 2 (actor vs. observer) × 2 (success vs. failure) × 2 (immediate vs. delayed)

analysis of variance (ANOVA). Only a significant main effect for task outcome was found, $F(1, 72)=5.25$, $p<.03$, with subjects giving the actor more credit for successful outcomes than for failures. To better examine the differences between actor and observer attribution patterns over time, separate 2 (success vs. failure) × 2 (immediate vs. delayed) ANOVAs were conducted for actors and observers. For the actors, a significant interaction was uncovered, $F(1, 36)=4.10$, $p<.05$. As shown in Figure 1, actors gave attributions for successes that became more dispositional as time passed, whereas they gave attributions that were more situational over time for failures. Thus, the pattern found for actors in earlier studies was replicated. A Newman-Keuls test found that only the two delayed-condition scores differed significantly ($p<.05$). No other significant effects emerged in the ANOVA. When observers' attributions were examined, no significant effects were found. As shown in Figure 1, there was a nonsignificant tendency ($p<.07$) for observers to make attributions for success that were more dispositional than their attributions for failure.

LIKERT-SCALE ATTRIBUTIONS

Subjects indicated on 11-point scales the extent to which they attributed the actor's performance to personal and situational causes. To obtain an overall score for the analysis, subjects' situational score was subtracted from the personal score.[1] This composite score then was examined within a three-way ANOVA. As with the other attribution measure, only a significant main effect for outcome was found, $F(1, 72)=11.79$, $p<.001$, with higher (more personal) scores in the success condition ($M=1.78$) than in the failure condition ($M=-0.85$).

Once again, separate ANOVAs were performed for the actors and observers. For the actors, a significant main effect for outcome was found, $F(1, 36)=4.55$, $p<.04$, with more dispositional attributions being made for successes than for failures. However, the predicted interaction fell just short of significance ($p<.07$). As shown in Figure 2, the same pattern found with the other attribution measure and in earlier research was produced. When observers' scores were analyzed, only a significant main effect for outcome was found, $F(1, 36)=7.30$, $p<.01$, with more dispositional attributions given for successes than for failures, as shown in Figure 2.

1. As in the earlier studies (Burger, 1985; Burger & Huntzinger, 1985), examination of the dispositional and situational attributions separately yielded similar, but statistically weaker, results as compared with the composite measure.

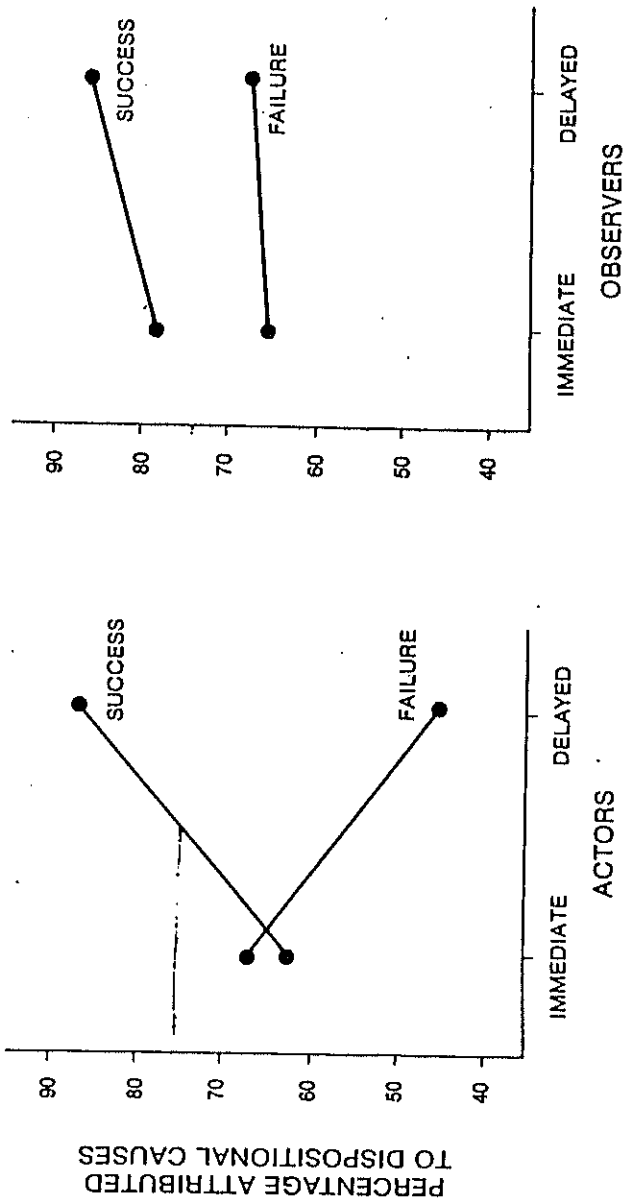

FIGURE 1
Mean dispositional percentage scores for open-ended attributions.

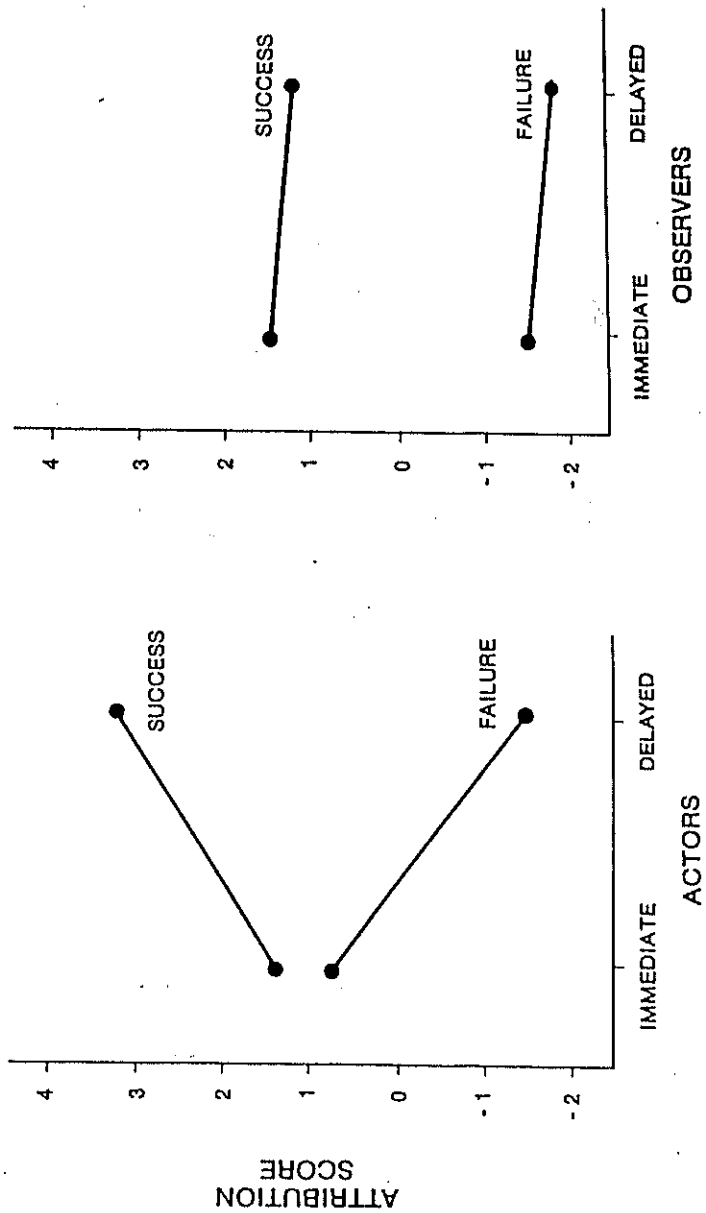

FIGURE 2
Mean composite attribution scores for Likert-scale items.

DISCUSSION

The results provide an additional replication of the effect uncovered previously (Burger, 1985; Burger & Huntzinger, 1985). Actors gave attributions for their successes that were more dispositional 3 days later than when asked about their performance immediately after the task. On the other hand, actors gave attributions for their failures that were more situational 3 days after the task than immediately afterward. It was found, however, that observers did not demonstrate this pattern. Attributions for the actors' performance given 3 days after the task were virtually identical to those given immediately after the task.

The results are consistent with the motivational interpretation for the temporal attribution effect. Actors, because they are motivated to protect self-esteem, may selectively forget personal reasons for failure and situational reasons for success over time. However, observers, who have no such motivation, have no reason to change their attributions over a 3-day period.

While the actor–observer differences uncovered in this research provide support for the motivational interpretation, other differences between actors and observers allow for alternative explanations. More specifically, strict cognitive interpretations cannot be ruled out. For example, actors may link their perception of the situation with such internal cognitions as intentions and subgoals, which the observer does not have access to. In addition, the actor is processing this information in the context of other information about his or her past that is also unavailable to the observer. Although the motivational–cognitive issue may never be satisfied completely, these issues do provide questions for further research aimed at further specifying the mechanisms underlying this effect.

The results also provide a greater understanding of the way people make attributions for others. Although many variables affect observers' attributions (Watson, 1982), no evidence was found to suggest that these attributions change systematically over time. Naturally, the generalizability of these findings to other types of tasks and different time periods needs to be determined, but there may be some implications for several applied areas in which attributional analyses have been proposed. One example is how attributions teachers make for their students' successes and failures change over time (Burger, Cooper, & Good, 1982). The leap from laboratory to real world, however, always needs to be made with caution. In this example, teachers are not only observing students, but interacting with them and influencing their behavior as well. In fact, interactions between actors and observers no doubt are the rule in real-world examples of this effect.

A remaining question that cannot be answered from these data

concerns the accuracy of the subjects' attributions. The Burger and Huntzinger (1985) motivational interpretation implies that observers are more accurate attributors than actors, who are motivated to distort their recall. However, the false-feedback paradigm obviously does not allow for a determination of the "correct" attribution. Therefore, future investigators may wish to assess attributions for which veridical information about the causes of the performance are available. What is certain is that while the observers' immediate and delayed attributions may both be correct, the actors' interpretations for their performances may be accurate either immediately after the task, after a period of time, or neither. Thus, some inaccuracy surely is being demonstrated here. Other questions that may be addressed in future research include the effect of making an attribution at the time of the event on future attributions; the introduction of motives for attributional distortion on the part of the observers (e.g., when observers anticipate performing the task in the future); and ways in which attributions change over time for events other than those with success–failure implications.

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