When experiences of failure promote expectations of success: The impact of attributing failure to ineffective strategies[1]

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Abstract

This experiment examined the effects of attributing initial failure to in-effective strategies on performance expectancies. Subjects were induced to attribute performance at a persuasion task to either their strategies (a controllable factor) or abilities (an uncontrollable factor). Subjects then failed at their initial persuasion attempt. Following failure, strategy subjects expected more successes in future attempts than did ability subjects. Strategy subjects also expected to improve with practice, while ability subjects did not. Comparisons to control subjects, who received no attribution manipulation prior to success or failure, clarify these results. Findings suggest that subjects attributing task outcomes to strategies monitored the effectiveness of their strategies and concluded that by modifying their strategies they would become more successful. In contrast, subjects attributing task outcome to abilities failed to attend to strategic features and concluded that they could not improve. Implications of this overlooked factor for attribution theory and learned helplessness are discussed.

When people fail at a task, they often become discouraged and give up, also showing motivational and performance decrements at similar tasks in the future (Seligman, 1975). But occasionally, an individual remains optimistic and claims that despite past failures, he will succeed the next time. Thus, although Dave fails to close a single deal during his first days as a car salesman, he still expects to succeed in his next sales attempt. Although Sue, a Red Cross volunteer, fails to persuade her initial contacts to pledge a blood

donation, she continues to call people because she "knows" the next person will agree to donate blood. What causes Sue and Dave to persevere after experiences of failure that would lead others to give up? When do experiences of failure promote expectations of success?

Attempts to answer such questions typically emphasize that an individual's reaction to failure is determined by one's perception of why the failure occurred (in the learned helplessness domain, cf. Abramson, Seligman, & Teasdale, 1978; Dweck, 1975; Dweck & Reppucci, 1973; Klein, Fencil-Morse, & Seligman, 1976; Wortman & Dintzer, 1978. In the achievement motivation domain, cf. Kukla, 1972; Weiner, 1974, 1979; Weiner et al., 1971; Weiner & Kukla, 1970; Weiner & Sierad, 1975). If a person thinks the failure was produced by stable factors that are not easily controlled and modified, the person will decide that subsequent failures are inevitable, and will probably give up. But, if the person thinks the initial failure was produced by unstable factors that can be controlled and modified, then the person might decide that initial setbacks can be mastered. Although there are many controllable and uncontrollable factors that may play a role, researchers typically have studied only two factors. The controllable factor thought to promote success expectancies in the face of failure is "effort." That is, Dave and Sue might expect future success if they attribute their initial failures to their own lack of effort; they can try harder on subsequent attempts. The uncontrollable factor thought to promote failure expectancies is "ability." That is, individuals might expect future failure if they attribute their initial failures to their own lack of ability; they cannot easily modify their abilities on subsequent attempts.

Basically, we agree with the above motivational analysis. Attributing failure to a controllable rather than an uncontrollable factor (like ability) should lead to increased success expectancies and increased persistence. However, we disagree with the presumption that individuals expect success following failure *only* when they believe that they did not "try hard enough." For some tasks the analysis of motivation requires a *directing* component as well as the more typical *energizing* component labeled effort. This directing component can be viewed as "strategy"—the particular approach, tactic, or method one uses in attempting to achieve a goal or solve a problem. Note that strategy can be independent of effort; that is, a person's strategy can change even when the person's overall level of effort remains the same. Thus, in attempting to persuade others to buy a car, or to donate blood to the Red Cross, one may modify the specific strategic features of the sales pitch on

each attempt without changing the overall level of effort operationalized as persistence or self-ratings).

While the energizing aspect of performance has been extensively studied, the directing aspect has been largely ignored. Perhaps this reflects the fact that early work in this area, concerned with developing an attributional model of achievement motivation (Kukla, 1972; Weiner, 1974; Weiner et al., 1971; Weiner & Kukla, 1970; Weiner & Sierad, 1975) dealt primarily with simple single strategy or algorithmic tasks (e.g., digit-symbol substitution, anagrams, simple arithmetic problems) where the only apparent solution was to "try hard." But whatever the reason, the model that evolved from this research emphasized only effort.

This lack of concern about strategy is particularly surprising since the choice of strategy can determine whether we succeed or fail at a wide range of tasks. For example, whether one succeeds in selling cars depends in part on the strategic features of the sales pitch, and whether one persuades someone to donate blood depends largely on the specific persuasive strategy selected. Strategies have been shown to influence individuals' performance in achievement tasks (cf. McGraw, 1978) such as discrimination (Deiner & Dweck, 1978; Gholson, Levine, & Phillips, 1972) and insight problems (Glucksburg, 1962, 1964), and in interpersonal tasks (cf. Zimbardo, 1978) such as dating (Curran, 1977). Also, anecdotal evidence suggests that people often believe that failures are due to using the wrong technique. Witness the explanations commonly given for lost basketball games ("We should not have tried to run with them"), failed exams ("I studied for multiple choice questions and she gave us an essay exam"), and lost loves ("I guess I just came on too strong").

There is thus evidence that strategy choice is a major determinant of success and failure, and that individuals often attribute their failure to inappropriate and ineffective strategies. But will attributing a failure to ineffective strategies lead to higher expectations of success than attributing the failure to uncontrollable factors, such as ability? The present experiment examined this issue by comparing how individuals react to failure when they perceive task outcome as strategy determined versus ability determined. In the experiment, subjects were asked to persuade another student (via telephone) to donate blood to the Red Cross. We selected this task because pretesting indicated that it could appear to be primarily influenced by strategies or by abilities. Prior to attempting this task, subjects talked to another subject (actually a confederate in the experiment) who stated, in the course of discussing the upcoming task, that in his opinion a person's persuasiveness depends upon

the "strategies" he uses (strategy condition) or upon his "abilities" (ability condition). This attribution manipulation was designed to predispose subjects to later attribute their outcomes to a particular causal factor. Subsequent to this manipulation, these subjects were led to believe that they failed in their persuasion attempt. Finally, to assess the impact of task outcome and attribution on subjects' expectations, all subjects were asked to estimate their likely success at the task in the future.

In addition, two other conditions were included to provide baselines against which to compare the results of the attribution conditions. In these conditions, subjects received *no* attributional manipulation prior to experiencing apparent failure (failure condition) or success (success condition) at the task. The failure condition provided a baseline of subjects' typical expectancies following failure at this task. Comparisons to this condition allowed us to determine whether strategy and ability attributions raised or lowered these typical expectancies. The success condition provided a baseline of subjects' expectancies when they believe that they are good at the task and will be successful. Thus, this condition provided a subjective criterion of "good" performance against which we could compare the expectancies of those subjects who had apparently failed.

Our primary prediction was that subjects led to perceive their initial failure as resulting from the relative ineffectiveness of their strategies would expect higher levels of subsequent success than those subjects led to perceive their initial failure as resulting from their own lack of ability. That is, strategy subjects should exceed ability subjects in their expectations for success. As outlined above, this prediction is based on the notion that since strategies are within individuals' volitional control, strategy subjects will consider ways to modify and improve their strategies once they learn that their initial ones are ineffective. However, since ability subjects attribute their failure to low abilities, which they cannot easily control and modify, their expectations should remain low as a function of the failure experience.

Method

Subjects

Subjects were 14 males and 22 females who participated in an experiment billed as a study of persuasion techniques. Subjects received either $2.00 or credit toward a class requirement for their participation. Nine subjects were randomly assigned to each experimental condition.

Procedure

Upon arrival, each subject was asked by the experimenter to wait until a second subject arrived for the experiment. When this second subject

(actually a confederate in the experiment) arrived, he and the real subject were presented with a brief introduction to a study on persuasion techniques being conducted by the Red Cross, in preparation for an upcoming blood donor drive on campus. Specifically, they were told that the Red Cross was planning to conduct a telephone blood drive on campus in which student volunteers were to call other students and try to convince them to pledge blood. The experimenter then explained that past telephone campaigns had not been as effective as the Red Cross would like. While some volunteers were successful in getting a large number of people to pledge blood, others were unsuccessful in getting anyone to pledge blood. The experimenter then explained that the Red Cross was conducting the present study to discover what factors determine whether volunteers succeed or fail. To do this, a small scale telephone campaign was being conducted in which the subject's task was to act as a volunteer caller, trying to solicit blood donations on campus (via telephone). The experimenter noted that his job was to listen to the calls and make notes on what factors he observed influencing the outcome of the calls. The experimenter also noted that he would later ask subjects to give their own impressions of what determined the outcome of the calls. The subject and the confederate were then given information (obtained from the Red Cross) about the blood donation procedure and were asked to prepare a telephone "sales pitch."

Attribution manipulation. At this point, the experimenter explained that since there was only one telephone in the room, one of the subjects would be sent to a different room with a second researcher, who would supervise the calls. The experimenter then left the room, supposedly to check on the other room and researcher. As he left the room, the experimenter told half the subjects, those in the Attribution conditions, that they should "feel free to discuss the phone calls and the task."

As soon as the experimenter left the room in the Attribution conditions, the confederate introduced himself and proceeded to make comments designed to influence the way that the subject would perceive his/her performance at the task. The confederate accomplished this by indicating that, in his opinion, persuading people to pledge blood is a task in which either strategies (strategy condition) or abilities (ability condition) determine a volunteer's success or failure. Specifically, in the strategy condition, the confederate said, "It seems to me that we could do all right if we approach this thing in the right way. I have a friend in Oakland who is a salesman for Bristol-Meyers. At first he didn't do too well. Then, he started using different tactics until he found one that worked. He's developed a strategy that's pretty successful. I think we should try the same type of thing. What do you say?" In the ability condition, the confederate said, "I think that the problem is exactly what that guy (the experimenter) said it was: some people do well, others do poorly. I had some friends calling for the Cancer Research Foundation. One guy was really good. He could talk just about everybody into contributing. The other guy couldn't get anybody to contribute. It is sort of like either you've got it or you don't. What do you say?" Note that since the experimenter was absent during this Attribution

nanipulation, he was blind with respect to the type of attribution the
ubject was given.

In the No Attribution conditions, subjects were asked to not discuss the
)hone calls while the experimenter was gone, and the confederate made
10 attempt to influence the subjects' perceptions and reactions to the task.

Success-failure manipulation. After a brief period (5 minutes), the ex-
)erimenter returned with a second researcher. This second researcher left
vith the confederate to supposedly start on his telephone calls. The ex-
)erimenter then instructed the subject to make a practice call to the first
)f the potential donors, explaining that the targets for all calls had been
andomly selected from registered students at Stanford. Producing a list
)f names, the experimenter asked the subject to begin by contacting the
irst name on the list. After failing to contact the first person dialed, the
ubject then succeeded in reaching the second party (actually another con-
ederate in the experiment) and was given the experience of either suc-
·essfully persuading an individual who had initially sounded uninterested,
)r of failing to persuade a prospect who had initially seemed mildly pos-
tive.

In the Attribution conditions all subjects failed to persuade the confed-
·rate to donate blood. In the No Attribution conditions half of the subjects
ucceeded (success condition) and half failed (failure condition). In sum-
1ary, there were four conditions. The two Attribution conditions, strategy
.nd ability (both failure), were designed to test our hypothesis that attrib-
·ting failure to an inappropriate strategy would lead to higher expectations
)f success than would an ability attribution. The two No Attribution con-
litions, success and failure, were designed to yield a baseline estimate of
vpical effects of success and failure at this task. To insure that the failure
·xperiences were similar in the three failure conditions, the confederate
vho provided this outcome was blind to the subjects' experimental con-
lition.

Followup to the attribution manipulation. At this point, subjects in
he Attribution conditions were asked to write a short explanation of their
uccess or failure in the initial call. The experimenter justified this by
eminding these subjects that one type of data he was gathering in the
xperiment was subjects' own impressions about what factors influence
he outcomes of their calls. We included this task so that subjects would
ave a chance to reflect on what had happened in their initial call. Subjects
n the No Attribution conditions were not given this follow-up "explana-
on task." The experimenter merely gave these subjects a couple of min-
tes to look over the Red Cross materials and to ask questions before he
)roceeded.

Dependent measures. As subjects prepared to make the series of ten
.alls that were purportedly to comprise the remainder of the experiment,
hey were asked to respond to a series of questions ostensibly to assess
heir initial attitudes toward the telephone blood drive campaign. Subjects
·ere asked to estimate the number of successes they would have in the
pcoming ten calls in the experiment (immediate success prediction), and
) predict their likely success in an upcoming blood donor drive on campus

(long-term success prediction). The long-term estimates were assessed in
two different ways. First, they predicted the percentage of successes they
would have in all the calls they were willing to make. Second, they pre-
dicted the exact number of successes they would have in each of the first
five blocks of ten calls (that is, their first 50 calls).

A more general and indirect measure of subjects' self assessments was
obtained by asking them to indicate (on a five-point ordinal scale) how
willing they would be to participate as an unpaid volunteer in an upcoming
blood donor drive.

Debriefing. After each subject had completed the dependent measures,
the experimenter asked a series of questions to assess the subject's sus-
picions regarding the various experimental deceptions (cf. Aronson &
Carlsmith, 1968). Few subjects in the Attribution conditions could recall
what they had discussed with the confederate, and no subjects had dis-
covered the manipulations and deceptions. The experimenter then ex-
plained the true purpose and hypotheses of the experiment, concentrating
on the impact the outcome manipulation might have had on the subject's
self-impressions. This "process debriefing" procedure (cf. Ross, Lepper,
& Hubbard, 1975) has proven effective in eliminating the persistent impact
of false feedback.

Results[2]

Data for subjects in the No Attribution conditions will be ex-
amined to assess the baseline effects of success and failure (in the
absence of any attribution manipulation) on subjects' expectancies
and impressions. Then data for subjects in the Attribution condi-
tions on these same measures will be examined to determine
whether the type of attribution subjects made for failure (strategy
versus ability) modified these typical responses. This will allow a
direct test of the hypothesis that strategy subjects will have higher
expectancies of future performance than ability subjects.

No Attribution Conditions

It will be recalled that in the No Attribution conditions, subjects
were not given any attributional manipulation prior to experiencing
apparent success or failure at the persuasion task. The impact of
this outcome manipulation was apparent on many, but not all mea-
sures. The success expectancies for the immediate situation, and

2. Since subjects' self-perceptions of general abilities might have affected their
reaction to the outcome manipulation, self-ratings were obtained on persuasiveness,
social sensitivity, and general communication skills. These self-ratings were then
used as covariates in preliminary analyses of the primary dependent variables. How-
ever, these global self-ratings were only weakly correlated with subjects' predictions
of future success, and analyses with the covariates did not differ from analyses
without the covariates. Therefore, these self-ratings and the analyses of covariance
are not considered further in this report.

Table 1. Means of subjects' predictions of future success.

	No Attribution			Attribution		
	Suc-cess	Fail-ure	t^a	Strat-egy	Abil-ity	t
nmediate success prediction	5.2	3.4	2.86***	4.8	3.4	2.43**
.ong-term success predictions						
Overall %	58.9	36.7	2.91***	48.9	37.0	1.90*
First 50 calls	28.2	21.0	2.18**	26.1	18.6	2.27**

^{a} All probability levels are based on two-tailed tests of significance with 16 df.
* $p < .08$.
** $p < .05$.
*** $p < .03$.

Table 2. Means of subjects' predictions of practice effects.

	No Attribution		Attribution	
	Success	Failure	Strategy	Ability
Average slope of success predictions over blocks	.211	.344	.556	.111
t^a	1.78	4.99*	7.83*	<1

^{a} t tests determining whether each slope differs from zero.
Note.—Probability levels are based on two-tailed tests of significance with 8 df.
* $p < .005$.

or both measures of general (long-term) expectancies were considrably higher for subjects who had experienced a success than for 1ose subjects who had experienced failure in their initial call. As an be seen in Table 1, success subjects expected 5.2 successes in 1eir upcoming 10 experimental calls, while failure subjects expected only 3.4 successes, $t(16) = 2.86$, $p < .02$.[3] In a future blood rive, success subjects expected an overall success rate of 58.9%, .·hile failure subjects expected only 36.7%, $t(16) = 2.91$, $p < .02$.)f the first 50 calls in a future blood drive, success subjects expected 28.2 successes, while failure subjects expected only 21.0, (16) = 2.18, $p < .05$.

Furthermore, if we examine each subject's predictions of success .·er five consecutive blocks of calls, we can estimate how each 1bject expected practice to influence performance.[4] Table 2 presents the average rate of improvement expected by subjects. This hows that on the average failure subjects expected to improve 1gnificantly with practice. That is, there was a significant increase 1 failure subjects' estimates over blocks of calls, $t(8) = 4.99$, $p <$)02. However, while success subjects tended to expect some im-·rovement with practice, this trend was not significant, $t(8) = 1.78$, ·s.

3. All statistical tests are based on two-tailed tests of significance.
4. For each subject, the best-fitting regression line was calculated, with expected 1umber of successes as the dependent (Y) variate and calling block (first 10 calls, ·cond 10 calls, etc.) as the independent (X) variate. The slope, then, indicates the 1bject's expected change in performance over blocks of calls. Positive slopes inicate an expectation of more successes with more practice. These slopes can be ·sted against zero, to see if subjects within a given condition expected to improve ith practice. One can also test for differences between conditions to see if subjects one condition expected more improvement with practice than subjects in another ·ndition.

Subjects' willingness to participate in an upcoming blood drive on campus was apparently unaffected by their outcome at the task. Success and failure subjects did not differ on their median level of volunteering (medians were 3 and 2, respectively; Mann-Whitney $U = 21.5$, ns).

Attribution Conditions

In the Attribution conditions, prior to experiencing failure at the persuasion task subjects listened to a confederate who suggested either that performance depended upon persuasive strategies (strategy condition), or that performance depended upon persuasive abilities (ability condition). What effect did this attribution manipulation have on subjects' reactions to failure? Briefly, strategy subjects made higher predictions of subsequent success than did ability subjects on all measures that were affected by task outcome in the No Attribution conditions.

As shown in Table 1, strategy subjects expected 4.8 successes in their 10 experimental calls, while ability subjects expected only 3.4 successes, $t(16) = 2.43$, $p < .03$. In a future blood drive, strategy subjects expected an overall success rate of 48.9%, while ability subjects expected only 37.0%, $t(16) = 1.90$, $p < .08$. Of the first 50 calls in a future blood drive, strategy subjects expected 26.7 successes; ability subjects expected only 18.6, $t(16) = 2.27$, $p < .04$. However, just as subjects' willingness to participate in an upcoming blood drive was unaffected by the outcome manipulation in the No Attribution conditions, subjects' willingness was unaffected by the attribution manipulation in the Attribution conditions (strategy median = 2, ability median = 2, Mann-Whitney $U = 41.5$, ns).

If we compare these results to the corresponding results in the No Attribution conditions, an interesting pattern becomes apparent. On each of the above measures strategy subjects made estimates almost as *high* as those of No Attribution subjects who had

initially succeeded. That is, despite their initial experience of failure, subjects who were induced to attribute that failure to strategic errors expected to perform about as well as did subjects who initially experienced success. Also note that ability subjects made estimates as low as failure No Attribution subjects. In fact, the differences produced by the attribution manipulation were as large as the corresponding differences produced by the success-failure outcome manipulation. Pooling the data for the Attribution and No Attribution conditions, we find that the attribution manipulation produced effects that did not differ significantly in size from those produced by the outcome manipulation ($Fs < 1$ for all measures).

Perhaps the most interesting aspect of subjects' estimates in the Attribution conditions, however, is that strategy but not ability subjects expected their performance to improve with practice. As shown in Table 2, over the 5 consecutive blocks of 10 calls in an upcoming blood drive there was a significant increasing linear trend in strategy subjects' estimates of success, $t(8) = 7.83$, $p < .001$; there was no significant increase in ability subjects' estimates ($t < 1$). Furthermore, the expected rate of improvement was significantly larger for strategy subjects than for ability subjects, $t(16) = 2.35$, $p < .04$, and for failure subjects, $t(16) = 2.14$, $p < .05$.

This pattern can best be understood by examining Figure 1, which presents the regression lines for the three failure conditions, obtained from subjects' expectancies to improve with practice.[5] As can be seen in Figure 1, strategy subjects expected to learn how to be more persuasive with practice. Failure subjects also expected to improve with practice, but apparently felt that not much improvement was possible. Ability subjects, though, expected little improvement with practice; they seemed to believe that "either you've got it or you don't."

Discussion

The results of this experiment demonstrate that when individuals are "set" to perceive initial failure as resulting from the relative ineffectiveness of their strategies, rather than their lack of ability, experiences of failure promote expectancies of success. In the experiment, strategy subjects expected significantly higher levels of success following failure than did ability subjects, both in the persuasion task in the experiment and in an upcoming blood donor

5. As mentioned earlier, a regression line was calculated for each subject. Each overall regression line presented in Figure 1 was obtained by averaging the slopes and intercepts for subjects within a condition. Note that this procedure yields the same overall regression line as would be obtained by calculating a group's regression equation by using each subject's raw data directly.
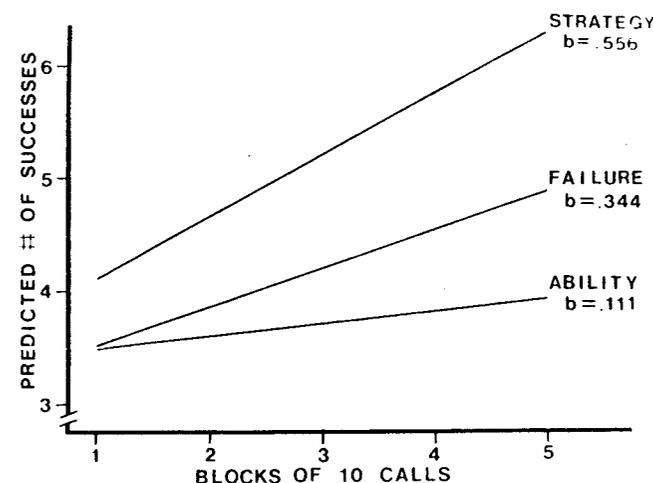
Figure 1. Predicted number of successes as a function of practice, for the experimental conditions with initial failure.

drive on campus. In fact, strategy subjects made estimates as high as those of No Attribution subjects who had experienced success in their initial persuasion attempt.

Our interpretation of these results is that when people are set to attribute task outcome (failure in this experiment) to strategies, they are likely to monitor how effectively their strategies meet the demands of the task at hand. For these subjects, initial failure indicates that their strategies were ineffective, and that in order to succeed they must modify those strategies. For example, conversation with one subject revealed that he thought he had failed because his initial persuasive strategy had not allayed the prospective donor's fears regarding the after-effects of donating blood. He decided that by adding this strategic feature in subsequent attempts, he would have a better chance to succeed. In contrast, subjects set to attribute task outcome to their abilities do not monitor the demands of the task at hand. They fail to attend to strategic features of their attempts, fail to learn from their experiences, and conclude that they cannot improve their performance.

Subjects' expectations about the effects of practice further clarify this interpretation. Recall that subjects predicted their likely success on five consecutive blocks of calls in an upcoming blood donor drive on campus. Strategy subjects predicted their rate of success would gradually and continuously increase with practice, even after they had made 30 and 40 calls; ability subjects predicted little increase (see Figure 1). This implies that strategy (but not ability)

subjects expected to continually monitor and refine the strategic features of their pitches (and thereby improve their performance) during not just the first few calls, but during all the calls they made.

An alternative explanation of these data is that the "attribution" manipulation simply persuaded strategy subjects that they could succeed even after initial failure, even without modifying their persuasive strategies. That is, the same results could possibly have occurred without any mention of strategies or manipulation of strategy attributions. Our interpretation is that once subjects make the strategy attribution they then infer that they can modify and improve their persuasive attempts. However, our strategy manipulation did include both a strategy attribution and a statement implying one could succeed after some initial failures—i.e., "At first my friend didn't do well; then he started using different tactics until he found one that worked." To demonstrate that our results were due to the strategy attribution we attempted to replicate our initial strategy/ability differences with a strategy manipulation that omitted any references to improvement after initial failure or to practice effects.[6] The basic results paralleled those of the main experiment, with strategy subjects expecting more initial success, more long term success, and more improvement with practice than did ability subjects.[7] The above alternative explanation of the results of our main experiment in thus disconfirmed.

Overall, the results have several implications regarding people's reactions to failure at tasks that demand effective strategies. First, attributing failure to inappropriate strategies allows individuals to react more adaptively to failure. Such attributions focus the people's attention on those strategic features that are ineffective and can be modified to improve performance. The value of this response is apparent when we realize that many problems can be solved only by discovering new ways of dealing with them. Second, an individual's reaction to a specific failure may sometimes be determined by seemingly "trivial" cues in the environment that "set"

6. We would like to thank Professor Michael Ross for pointing out this potential artifact. The attribution manipulations in the replication study, again provided by the confederate, were: strategy—"It seems to me that this is the kind of task where the tactics or strategies you use are very important. How well you do depends on the strategy that you select." Ability—"It seems to me that this is the kind of task where one's abilities are very important. It's sort of like either you've got it or you don't."

7. All significance levels are based on two-tailed t tests. Immediate expectancies, $t(19) = 1.79$, $p < .09$; Long term expectancies, $t(19) = 2.08$, $p < .05$; percent improvement expected with practice, $t(19) = 2.20$, $p < .04$. Slightly different indices of expectations were used in this replication study. The authors will provide more information about this experiment upon request.

their perception of the causes of failure. In the experiment, the confederate merely stated his opinion about the task, an opinion that many subjects were unable to recall during debriefing. Despite this, the confederate's comment had as much impact on subjects' expectancies and impressions as did apparent task outcome in the No Attribution conditions.

Finally, the present results may provide a clue to understanding why certain individuals chronically become depressed and helpless following failure (that is, have lowered expectancies and persistence). Cognitive theories of motivation all stress the importance of people's expectations in determining whether they will attempt a task, and how long and hard they will persist (Atkinson, 1964; Weiner, 1974, 1979; Bandura, 1977). A current explanation of the *chronic* reaction is that helpless individuals consistently expect failure because they consistently attribute initial failures to uncontrollable and stable factors, like ability (cf. Abramson, Seligman, & Teasdale, 1978). Consequently, these individuals are less likely to attempt a task and more likely to give up easily if they do try. It is our suspicion that strategy attributions, and the corresponding problem-solving approach to failure, may underlie differences between helpless and nonhelpless, and between other debilitated and nondebilitated groups in their efficacy expectations, style of responding (strategy shifts), and effort. Consistent with this claim is recent correlational evidence (Anderson, French, & Horowitz, Note 1) that depressed people, shy people, and lonely people are significantly less likely to attribute failure to ineffective strategies than are nondepressed, nonshy, and nonlonely people. In fact, for the hypothetical problem situations presented in that study, all of which appeared to require strategy for successful performance, there were no significant differences between the debilitated groups (depressed, shy, and lonely) and the corresponding nondebilitated groups in their tendency to make effort attributions. Thus, for example, a lonely person who feels helpless and unable to make friends knows that he *has* tried very hard to make friends, and that he has failed. He does not know that he has used inappropriate and ineffective tactics and strategies in attempting to make friends (cf. Zimbardo, 1978).

To place our comments in proper perspective, we must iterate that strategies and strategy attributions do not determine all performance at all tasks (i.e., digit-symbol substitution). There are many factors that may influence performance, and strategy is just one example. An individual must consider the particular problem or task at hand and discover what factors are relevant to that task In some cases, strategy may be relatively unimportant, and in these

cases the person should concentrate on other factors such as effort and ability. But in cases where a strategic or problem-solving approach is needed to solve the task, the person should carefully consider the role that strategy plays; this is true both for the person attempting the task and the researcher attempting to explain that person's behavior.

Reference Notes

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