

EXPECTANCY VIOLATIONS AND CHANGES IN
PERCEIVED ABILITY*¹

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SUMMARY

An investigation of the effect of inconsistent outcomes (e.g., success following expected failure) on judgments of ability, motivation, and positive and negative evaluation was carried out. Descriptions of an individual which varied as to the portrayal of his general ability and motivation (high or low) and subsequent success or failure were administered to 109 male and female undergraduates who then rated his ability and motivation and made evaluative judgments of him. Consistent with an equity model, it was found that inconsistent outcomes (for example, high ability-high motivation-failure) lead to significant changes in perceived ability but not motivation. It was posited that the instability of the ability, as opposed to motivation, ratings was due to the employment of descriptions of general rather than specific ability, and consequently in most evaluative situations ability will tend to be the less stable of the variables.

A. INTRODUCTION

Drawing conclusions about the abilities and motivations of others and making evaluative judgments based on these conclusions is an enterprise in which all of us have indulged at one time or another. The particular degree to which each of these factors—i.e., ability and motivation—contribute to the evaluative judgment of others has been a central issue in attribution theory. Heider (3) stated that “people are held responsible for their intentions and exertions but not so strictly for their abilities” (p. 112). Thus praise and blame of others would appear to depend on their motivations rather than their talent.

In line with this, Weiner, Frieze, Kukla, Reed, Rest, and Rosenbaum

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(13), in a theoretical review, cited studies by Jones and deCharms (5), Schmitt (10), and Weiner and Kukla (12) which covered a range of situations calling for evaluative responses and concluded that moral judgments were consistently linked to motivations rather than to ability.

Evaluative judgments have been found to be influenced not only by ability and motivation but also by the outcome of a specific task. For example, Weiner and Kukla (13) found that reward was consistently related to success and punishment to failure. These studies dealing with moral evaluations have employed ability, motivation, and sometimes success-failure as independent variables.

Another line of investigation has varied success and failure and employed judgments of ability and motivation as dependent variables (1, 4, 6). These general findings have been that inconsistent outcomes, i.e.—success following expected failure or failure following expected success—have led to attributions of motivation, while consistent outcomes have led to attributions of ability.

However, a more recent study (9) manipulated both ability and motivation, as well as outcome, and subsequently gathered evaluative ratings of target persons in addition to subjective judgments of their effort and ability. Results showed that *S* were forced to account for the success of a low ability person by attributing high effort to him and that high motivation produced more positive evaluations under low than under high ability. Thus apparently as perceived motivation increased under low ability, evaluative ratings followed.

A theory of the attribution process based upon an equity model which fits quite well with the above findings and interpretation has been posited and supported by Taynor and Deaux (11). In general, the equity model implies that since investments should be directly proportional to rewards, outcomes which are perceived as producing rewards which are not proportional to investments should lead to changes in the perceived nature of the investments. It was found that target persons who were depicted as being in a situation which was inconsistent with their perceived role were evaluated more positively when they were successful than individuals in a congruent role situation. Further, judgments about their motivation increased in order to justify the incongruent role behavior. Similarly, if the equity model applies in the present studies, in a situation where, for example, a low ability and low motivation target person succeeds, evaluations of him should be more favorable than when he fails and in order to explain the out-of-role performance (failure is expected), shifts in perceived ability or motivation should occur.

Most of the research has posited and found that motivation has been the less stable of the variables and thus should shift. This research has employed very specific tasks which depict specialized ability rather than generalized intellectual and motivational variables. Something as characteristic of a person as his established work or study habits is perceived as relatively stable and not subject to capricious whims. Moreover, making judgments about expenditure of effort is relatively easy, at least when compared to the difficulty in ascertaining another's general ability or "intelligence." For these reasons it was predicted that in a situation pertaining to general academic ability and broad motivational predispositions unexpected outcomes are more likely to be accounted for by changes in judgment of ability rather than motivation. Thus, within the present context it was suspected that findings would be contrary to those found in situations confined to a task calling for very specialized ability. It was predicted that inconsistent outcomes would result in the re-evaluation of ability rather than motivation.

Two sets of hypotheses were tested. The first set dealt with affective evaluations of the target person: (a) Differences in positive and negative evaluations should be greater under high and low motivation than under high and low ability. (b) More positive evaluations should occur under success than under failure.

The second set of hypotheses dealt with judgments of ability and motivation: (a) The high ability-high motivation-success and the low ability-low motivation-failure groups will be rated differently on both ability and motivation. (b) The inconsistent conditions (high ability-high motivation-failure and low ability-low motivation-success) will continue to show differences in the motivation but not in the ability ratings. Again the rationale here is that motivation is clearly visible, while ability is more abstract and less stable and thus will shift under discrepant information in order to produce consistency with the outcome.

B. EXPERIMENT 1

1. Method

a. *Subjects.* Sixty-three male and female students enrolled in an undergraduate psychology course served as *Ss*.

b. *Stimulus materials.* Four different portraits of a fictitious student were produced which varied systematically regarding the portrayal of the student's intelligence and motivation. For example, the low ability-low motivation portrait was as follows:

John Stuart had always been a mediocre student; even in grade school and high school, he had not been very interested in academics, nor had he shown any particular aptitude. So his performance in college (2.00 GPA) was expected. His courses were in education and sociology. John seemed never to be at a loss for ways to avoid studying. It would be interesting to follow him through a typical day. John gets up at 10:00 A.M., even though he has a 9:00 class. He decides to cut his 11:00 class and goes over to the Union and plays pool until lunch time. At 12:30 he and some friends wander back to the cafeteria and spend a leisurely hour eating and talking. After some thought on the matter, he decides to make his 2:00 class, since there was an exam that day. His other class loses out to a group of friends playing frisbee. He goes to the magazine stand and picks up some new comic books, which he takes back to the dorm and reads until dinner. After dinner he comes back to the dorm and watches reruns of *Bonanza*, *McHale's Navy*, and *I Dream of Jeannie*. After his shows are over, he decides that he'd better study for a half hour or so; so he turned on his stereo and books it for a couple of hours. Then he goes back and finishes a Western he had been reading. At 11:30 there is a *Godzilla* movie on TV that he couldn't miss. He goes to bed at 1:00 A.M.

This was fairly typical of John Stuart's four years as an undergraduate. During his senior year he applied to law schools. His preadmission law boards were low—350, which is the 7th percentile. He was accepted at only one school—Ohio Northern, a school which has difficulty in attracting applicants. He barely scraped through law school having a hard time with the material, putting in a few hours, and earning a GPA of only 2.00. The critical test was yet to come: the Ohio State bar exam, which everyone wishing to be a lawyer in Ohio must take, but only 50% of those taking it pass. Before it is taken, there is a six week period of intensive study. John's study habits during this period were no different from those all through college. Finally the day came for the Ohio State bar exam. It was gruelling as was expected. Now all that awaited was notification of whether he had passed.

The remaining portraits were changed appropriately. For example, in the high-ability high-motivation portrait, John Stuart was depicted as working from early morning until late at night, taking difficult courses, and earning top scores on the law boards.

c. Procedure. The four portraits were randomized and distributed to the Ss in class along with scales for rating motivation, ability, and probability of success. Ss were told that they would be reading an actual case of a student named John Stuart and subsequently were asked to rate him on intelligence, motivation, and the probability that he would pass the bar exam. Both ability and motivation were rated on nine point scales from 1 (poor) to 9 (outstanding) for motivation, and from 1 (below average) to 9 (genius) for intelligence. Probability of passing was rated on a 10 point scale anchored at 100% and 0%.

In addition to these ratings the degree of positive or negative evaluation was measured by an index on cognitive structure developed by Gold, Cowles, and Woulff (2).

2. Results

A series of 2 × 2 unweighted means analyses of variance Kirk (7) were carried out upon the dependent variables of intelligence, motivation, and probability of success in order to determine whether the manipulations had indeed been valid and upon the affective evaluation measure in order to test hypothesis 1. The means are presented in Table 1.

a. *Intelligence.* The dependent measure of intelligence ratings showed a significant ability main effect ($F = 55.10$; $df = 1,59$; $p < .001$) and a significant motivation main effect ($F = 5.75$; $df = 1,59$; $p < .05$). No significant interaction was found.

b. *Motivation.* The differences between the high and low motivation conditions on the motivation ratings were also highly significant ($F = 611.86$; $df = 1,59$; $p < .001$), as was the difference between the ability groups ($F = 13.78$; $df = 1,59$; $p < .01$). The interaction was significant but quite small compared to the main effects ($F = 6.35$; $df = 1,59$; $p < .05$).

c. *Probability of passing.* The analysis of the probability of passing ratings showed significant main effects for both ability ($F = 27.18$; $df = 1,59$; $p < .001$) and motivation ($F = 21.11$; $df = 1,59$; $p < .001$). The interaction was not significant.

It can be seen from Table 1 that the mean probability of passing ratings were as expected with the high-high and low-low conditions scoring high and low, respectively, and the two mixed conditions (high-low and low-high) both scoring at approximately 50% probability.

TABLE 1
MEAN INTELLIGENCE, MOTIVATION, AND PROBABILITY OF SUCCESS RATINGS
AND SCORES OF AFFECTIVE BALANCE (BAL): EXPERIMENT 1

Dependent measures	Condition			
	High ability High motivation	High ability Low motivation	Low ability High motivation	Low ability Low motivation
Intelligence	6.43	6.71	3.92	5.00
Motivation	8.50	3.48	8.23	2.07
Probability of success	.79	.57	.54	.29
Bal	.79	.19	.52	-.02

Note: Since a few Ss either failed to fill out the structural measure or chose only a single adjective, the Ns in some cells for Bal were slightly reduced and varied between 13 and 21.

d. Affective balance. Scores on the measure of affective balance (Bal) showed only a significant motivation main effect ($F = 11.36$; $df = 1,56$; $p < .01$) with the high motivation group having significantly more positive evaluations. The difference between the high and low ability conditions was not significant. Thus hypothesis 1 was supported.

3. Discussion

The highly significant ability and motivation main effects for the dependent variables of intelligence, motivation, and probability of passing reflected the effectiveness of the manipulations.

Hypothesis 1 stated that differences in positive and negative evaluations should occur between the high and low motivation conditions but not between the high and low ability groups. The analysis of the Bal scores showed a significant difference only between the motivation conditions.

An interesting aspect of the results was that a significant main effect for ability occurred for the motivation ratings and a significant motivation effect occurred for the ability ratings. The effect for the motivation ratings was in the expected direction with the high ability group scoring higher than the low ability group. The intelligence rating results showed just the opposite effect; i.e., the low motivation condition was perceived as being more intelligent than the high motivation condition. It appears as though the perception of high effort worked to depress the perception of ability, whereas the perception of high ability inflated the perception of motivation.

C. EXPERIMENT 2

1. Introduction

Since the manipulation of ability and motivation showed highly significant differences for both the intelligence and motivation ratings and since highly significant differences in the probability of passing ratings were found, the manipulations were considered to be valid. The second study then was an attempt to discover the effects of providing information as to a success or failure outcome on the intelligence and motivation ratings and upon the affective evaluations (Bal).

2. Method

- a. Subjects.* One hundred and nine male and female students enrolled in a course in social psychology at the University of Maine served as Ss.
- b. Stimulus materials.* The four portraits described in Experiment 1

were employed in the present study. In addition a second page was added to each portrait which conveyed the information that John Stuart had either passed or failed the bar exam.

c. Procedure. The procedure was identical with that employed in Experiment 1 with the exception of the deletion of the probability of passing rating scale from the test booklet.

3. Results

Since the second study was more complicated than the first, equal *N* analyses of variance were carried out in order to facilitate the computational procedures. *S*s were randomly discarded within each group yielding all *N*s equal to 12.

a. Ability and motivation ratings. In order to compare the ability and motivation ratings for the treatment groups, each set of ratings was standardized separately upon the mean and standard deviation of the distribution of its respective ratings. The resulting standard scores were then entered into a $2 \times 2 \times 2 \times 2$ split plot analysis of variance (7) with ability, motivation, and outcome acting as unrepated variables and the standardized ratings acting as a repeated variable. The means for all of the dependent variables are presented in Table 2.

The ability, motivation, and success-failure main effects were all significant (Ability: $F = 74.64$; $df = 1,96$; $p < .001$; Motivation: $F = 91.31$; $df = 1,96$; $p < .001$); Success-failure: $F = 13.13$; $df = 1,96$; $p < .001$). Significant interactions were found between each of the above variables and the standardized ratings (Ability \times Ratings: $F = 48.44$; $df = 1,96$; $p < .001$; Motivation \times Ratings: $F = 129.38$; $df = 1,96$; $p < .001$; Success-failure \times Ratings: $F = 8.46$; $df = 1,96$; $p < .01$).

Since the interactions between each of the independent variables and the

TABLE 2
MEAN INTELLIGENCE AND MOTIVATION RATINGS AND AFFECTIVE
BALANCE SCORES (BAL): EXPERIMENT 2

Dependent measures	Condition							
	Success				Failure			
	H.AB. H.MOT.	H.AB. L.MOT.	L.AB. H.MOT.	L.AB. L.MOT.	H.AB. H.MOT.	H.AB. L.MOT.	L.AB. H.MOT.	L.AB. L.MOT.
Intelligence	.97	.87	-.67	-.08	.18	.62	-.97	-.92
Motivation	1.00	-.68	.67	-.80	1.03	-1.04	.88	-1.06
Bal	.97	.81	.65	.08	.50	-.23	-.47	-.30

Note: AB. = ability; Mot. = Motivation; H. = High; L. = Low.

ratings of intelligence and motivation were all significant, simple main effects tests were carried out for each interaction. The tests for the ability \times rating interaction showed a significant difference between the high and low ability conditions on intelligence ($F = 121.77$; $df = 1,96$; $p < .001$) but not on the motivation ratings. The simple effects tests for the motivation \times ratings interaction showed a significant difference between the high and low motivation conditions on the motivation ($F = 222.08$; $df = 1,96$; $p < .001$) and on the intelligence ($F = 4.33$; $df = 1,96$; $p < .05$) ratings. The difference between the motivation groups on the intelligence ratings was quite small compared to that on the motivation ratings. Finally, the simple effects tests for the success-failure \times ratings interaction indicated that the manipulation of outcome had its effect upon the intelligence ratings ($F = 20.98$; $df = 1,96$; $p < .001$) and not upon the motivation ratings ($F < 1.00$).

The hypotheses dealing with the rating variables dealt with differences between specific cells: i.e., the high-ability high-motivation and low-ability-success and failure conditions. These predictions were tested through one tailed t tests, but since the four way interaction was not significant, error terms for each comparison were based upon the independent samples t formula (8). The prediction that the high ability-high motivation-success and low ability-low motivation-failure conditions would show results comparable to those in Experiment 1 was confirmed. Significant differences were found between these conditions for both the intelligence ($t = 8.18$; $df = 22$; $p < .001$) and motivation ($t = 13.29$; $df = 22$; $p < .001$) ratings. It was also predicted that the inconsistent conditions would show differences on the motivation but not on the intelligence ratings. This was also confirmed: the high ability-high motivation-failure and the low ability-low motivation-success conditions were significantly different on the motivation ($t = 11.09$; $df = 22$; $p < .001$) but not on the intelligence ($t = .66$ n.s.) ratings.

b. Affective balance. A $2 \times 2 \times 2$ analysis of variance was carried out on the Bal scores. Significant main effects were found for all three independent variables, as well as a significant three way interaction (Ability: $F = 14.33$; $df = 1,96$; $p < .001$; Motivation: $F = 5.56$; $df = 1,96$; $p < .05$; Success-failure: $F = 29.40$; $df = 1,96$; $p < .001$; Ability \times Motivation \times Success-failure: $F = 5.69$; $df = 1,96$; $p < .05$). Hypothesis 2 predicted a success *versus* failure main effect, and this prediction was strongly supported. An examination of the three way interaction through simple main effects tests showed that under success the only significant differences

occurred between the low-low condition and each of the others; i.e., no differences were found between any conditions where the target person was portrayed as being high on at least one of the variables. On the other hand, under failure, differences occurred only between the high-high conditions and all of the others. The success-failure comparisons for each ability motivation combination produced differential effects only where the target person was portrayed as being high on one variable and low on the other. The simple effects tests are reported in Table 3.

4. Discussion

The results of Experiment 2 supported the hypothesis that *Ss* alter their judgments of general ability when success or failure is an unexpected outcome. Whereas in Experiment 1 differences were evidenced between the high-high and low-low conditions on both the ability and motivation ratings, in Experiment 2 no difference was found between the high-high failure and low-low success conditions on the ability ratings. Thus general ability did tend to be a less stable variable than generalized motivation and was modified when the outcome was inconsistent with expectations.

In terms of the evaluative ratings Experiment 1 supported the past findings; i.e., differences in evaluation occurred between the motivation but not the ability conditions. However, in Experiment 2, the differences in evaluation occurred for both variables with the ability variable producing a considerably larger effect.

The strongest finding in Experiment 2 was for the success-failure effect. In previous studies failure resulted in the administration of punishment,

TABLE 3
ANALYSIS OF VARIANCE OF SIMPLE EFFECTS FOR AFFECTIVE
BALANCE SCORES: EXPERIMENT 2

Source	df	MS	F
H.AB. vs. L.AB. at H.MOT. Succ.	1	.613	n.s.
H.MOT. vs. L.MOT. at H.AB. Succ.	1	.163	n.s.
H.AB. vs. L.AB. at L.MOT. Succ.	1	3.195	7.00**
H.MOT. vs. L.MOT. at L.AB. Succ.	1	1.983	4.345*
H.AB. vs. L.AB. at H.MOT. Fail.	1	5.64	12.35***
H.MOT. vs. L.MOT. at H.AB. Fail.	1	3.20	7.02**
H.AB. vs. L.AB. at L.MOT. Fail.	1	.03	n.s.
H.AB. vs. L.AB. at L.AB. Fail.	1	.17	n.s.

Note: AB. = ability; Mot. = Motivation; H. = High; L. = Low; Succ. = Success; Fail. = Failure.

- * $p < .05$.
- ** $p < .01$.
- *** $p < .001$.

while in the present experiment it resulted in negative evaluations of the target person. Most of the effect was due to the difference between success and failure for the conditions where the target person was portrayed as being high on one variable and low on the other. Under success, for both the high ability-low motivation and low ability-high motivation conditions, the evaluations were quite positive, but under failure the evaluations of these same target persons became strongly negative. Thus it appears that Ss tended to disregard the variable on which the target person was portrayed as being low when he was successful but to employ that variable in forming their evaluations when he failed. The differences in evaluation between success and failure for the conditions where the target person was portrayed as being either high or low on both variables were not nearly as precipitous.

Changes in evaluation occurred when a variable previously disregarded (for example, ability in the low ability-high motivation-success condition or motivation in the high ability-low motivation-success condition) was again considered (for example, ability in the low ability-high motivation-failure condition). The interesting finding was that the strongest differences in perceived ability between success and failure outcomes occurred for the high-high and low-low conditions. This seems reasonable, since the outcome expectation was clear under these conditions as shown by the probability of passing data in Experiment 1, and thus a restructuring of the perceived role of the variables must have occurred to bring them into line with the unexpected outcome. One implication of the findings is that success seemed to cover flaws: persons who had at least one important positive characteristic were judged favorably even if their remaining assets were minimal, while failure led to a negation of an individual's positive attributes.

A second implication is that when an individual did not perform according to expectations, a restructuring of his perceived attributes occurred, and it appears as though general ability was the variable which received the restructuring.

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