

<Research SAMPLE PAPER. This paper was prepared with Time New Roman font, point 12. Max 14 pages> Transactions on Management

## **THE EFFECTS OF LEARNED HELPLESSNESS ON PERFORMANCE EFFICACY AND CONTROL EXPECTANCIES**

Stephen B. Schepman  
and  
F. Lynn Richmond  
Central Washington University, Washington, U. S. A.

### **ABSTRACT**

*This paper discusses a laboratory study of the effects of learned helplessness reactions in organizations. In this study, learned helplessness was manipulated through the use of random, non-contingent feedback. Performance efficacy and expectations of control were measured on a subsequent task involving the solving of anagrams. Statistically significant differences were found between helplessness and control groups on control expectancies and perceived ability on the second task. It was concluded from the result of the study that the lack of personal control felt by many members of organizations has serious implications for worker performance and motivation.*

### **INTRODUCTION**

Reactions to uncontrollable events have been studied extensively in the context of learned helplessness theory (Seligman, 1975; Abramson, Seligman & Teasdale, 1978), which states that an organism exposed to a situation in which outcomes are independent from behaviors will come to expect that outcomes in general cannot be controlled. Research support has been found for the debilitating nature of this expectation on a wide variety of human responses, including depression, academic and work performance, burnout, and physical health. Results from animal learning studies conducted by Seligman and his associates (Overmeir and Seligman, 1967; Seligman and Maier, 1967; Maier, 1970; Seligman, Maier and Solomon, 1971) indicated that uncontrolled shocks led to a generalized performance deficits in new situations.

The consistent findings in these animal studies resulted in attempts to apply the learned helplessness concept to human subjects. Inconsistent results indicated that human reactions to uncontrollable outcomes were more complex than responses made by animals in the initial helplessness studies. Human learned helplessness research emphasized individual and situational differences that influenced the ways in which uncontrollable experiences affected future behavior (Roth, 1980). To account for these differences, a reformulation of learned helplessness was proposed including additional cognitive steps, including the perception of present and past perceptions of control as well as attributions made for the causes of the uncontrollable events. The Attributional Style Questionnaire (ASQ; Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982) was developed as an integral part of this reformulation to measure the extent to which individuals are susceptible to learned helplessness ("hopeless") and generalize the perceived lack of future control to other, controllable tasks.

Subsequently, research on learned helplessness effects on humans have focused on the mediating processes that occur between exposure to uncontrollable events and the subsequent deficits described

above. Mikulincer (1994) specified two distinct reactions associated with expectations of future control. The first, termed personal helplessness, occurs because people believe they lack the necessary skills or abilities to perform a particular task. Feelings of personal helplessness, which occur as a result of exposure to uncontrollable outcomes, can also be defined as a reduction in feelings of self-efficacy. As defined by Bandura (1977), self-efficacy is a person's conviction that he or she is capable of successfully completing a behavior in order to produce certain outcomes. This belief can lead to whether or not an individual will even attempt a certain behavior and in general, is related to the likelihood of successful performance (Bandura, 1977, 1986, 1997).

The second type of feeling associated with expectations of future control, termed universal helplessness, occurs because people believe that no response will result in a successful task outcome. This feeling results from the experience of a lack of contingency between the individual's behavior and the outcome of the learned helplessness training task. It is suggested that because no contingency existed during this helplessness training task, no future contingency will be expected. According to Mikulincer (1994), the expectation of no control which results from learned helplessness training may be based on personal or universal helplessness, or both.

The purpose of this study was to further explore the initial reactions to exposure to uncontrollable events using the traditional learned helplessness laboratory paradigm. Feelings of personal and universal helplessness were measured following a traditional learned helplessness training task to assess the effects on self-efficacy and outcome contingency expectations.

## **METHOD**

**Subjects.** One hundred eleven undergraduate psychology students were used as subjects in the study, earning extra credit for their participation. Subjects were randomly assigned to high helplessness (n= 30), low helplessness (n= 44) and no helplessness/control groups (n= 37). Group sizes were unequal due to missing and/or unusable data.

**Procedure.** Subjects were initially asked to complete the Attributional Style Questionnaire (ASQ; Peterson et al, 1982). Following exposure to one of three conditions (high helplessness, low helplessness, control), the subjects responded to a group of items assessing perceived level of control on 1) the helplessness training task and 2) expected level of control and perceived ability on an anagrams task they were told was the final part of the experiment. Subjects were then informed that due to a problem with materials, they would be excused from the final experimental task. Following a debriefing, they were allowed to leave.

### **Helplessness Manipulation .**

The concept formation task used in this study was developed by Levine (1966) and has been used successfully as a helplessness manipulation in other studies (e.g. Pittman & Pittman, 1979, Mikulincer & Nizan, 1988). The task includes the use of a series of five-dimensional stimulus patterns. Each of the five dimensions has two values as follows:

- 1) letter (either A or T)
- 2) letter color (red or black)
- 3) letter size (large or small)
- 4) border surrounding letter (circle or square)

## 5) texture of border (dotted or solid)

In this task, subjects are presented with a series of 5 X 8 cards, each of which contains two stimulus patterns. On one side of the card, a pattern made up of one of the values for each of the five dimensions is shown. On the other side of the card, a pattern made up of the complimentary values for each of the five dimensions is shown. For example, the stimulus pattern on the left side of a card might consist of a small, red A surrounded by a dotted circle. The stimulus pattern on the right side of the card would consist of complimentary values of the five dimensions, including a large, black T surrounded by a solid square. The task for each subject is to choose which side of the card contains the "correct" value, which is defined as one of the possible 10 values associated with the five dimensions (e.g. a large letter, a T, a dotted border, etc.). In the present study, subjects worked on 6 problems, each consisting of a series of 10 cards. Following the presentation of each card, the subjects responded by stating which side of the card he or she thinks contains the "correct" value. The experimenter responded to the choices made by subjects according to the following helplessness training procedure:

High helplessness: Subjects in this condition received non- contingent feedback throughout the 6 problems (60 cards). For this condition, a predetermined pattern of feedback was delivered to the subject (e.g. CIICICCI, where C = "correct" and I = "incorrect"). To enhance the helplessness training effect, subjects were always informed that their last response was incorrect. The proportion of correct and incorrect feedback was held constant at .5 for all low and high helplessness subjects.

Low helplessness: Subjects in this condition received non- contingent feedback on only the last two problems. For the first four problems, contingent feedback was provided to the subjects. Control: Subjects in this condition received contingent (accurate) feedback throughout the 6 problems.

**Attributional Style.**

The Attributional Style Questionnaire (ASQ) is a self-report measure of patterns of individual explanatory style, defined as the tendency to select certain causal explanations for good and bad events. The widespread use of the ASQ as a measure of attributional tendency was documented in a recent meta-analysis conducted by Sweeney, Anderson & Bailey (1986). In this review of the effects of attributional style on depression, the results of 104 studies (and over 15,000 subjects) were analyzed, revealing a reliable relationship between attributions measured on the ASQ and depressed affect. While it is not specified exactly how many of the studies used the ASQ, it was stated that the instrument was used in "much" of the research to measure individual attributional tendencies. In order to measure explanatory, or attributional style, rather than an explanation for a particular event, 12 hypothetical events are described in the ASQ. Half of the events described are good events (e.g. "you become very rich", "you meet a friend who compliments you on your appearance") and half the events are bad (e.g. "you give an important talk in front of a group and the audience reacts negatively", "you go out on a date and it goes badly"). For each of the 12 hypothetical events, subjects are asked to imagine that they are in the situation and to write one major cause for the event. After specifying a cause for the event, respondents are asked to rate the cause of the event in terms of the three attributional dimensions discussed above. Perceptions about the locus, stability, and globality of the cause of the hypothetical event are reported on 7 point scales for each of the 12 events. The reliability of the Locus, Stability, and Globality scales are modest, with reported Cronbach's alpha ranging from .21 to .69, with lower reliabilities reported for the Locus scale, in which ratings in the middle range of the scale are common (Tennen & Herzberger, 1985). Internal consistency in terms of composite scores for good and bad events is higher, with reports ranging from .62 to .75 (Peterson et al, 1982,

Seligman & Schulman, 1986). The authors of the scale suggest that the modest reliabilities reported with respect to the individual scales is due to the small number of items for each scale and recommend that composite scores be used, arguing that the scales are substantially intercorrelated within good and bad events (Peterson et al, 1982). There is a fairly large literature supporting the criterion and construct validity of the ASQ (Tennen & Herzberger, 1985). In an critique of the ASQ, it is stated that studies testing the reformulated model of learned helplessness measuring attributional tendencies with the ASQ "have generated a good deal of enthusiasm in the academic community" and that "with some exceptions, studies using the ASQ have generally produced findings consistent with the reformulated model" (Tennen & Herzberger, 1985).

**Dependent Measures.**

Personal helplessness, or the feeling of self-efficacy regarding the anticipated follow up task, was measured by the response given by subjects on a 7 point scale to the question, "How do you rate your ability on the forthcoming anagrams task?" Personal control on the initial, as well as the "forthcoming" task, was measured by responses given by subjects to questions regarding the influence of ability, effort, luck and chance on their performance.

**RESULTS**

To test for the effects of the three levels of helplessness training on feelings of personal and universal helplessness, a series of one-way analyses of variance were performed. Table 1 presents the means and standard deviations for the outcome variables assessed in the study. Significant differences were found across groups for perceived ability on the forthcoming anagrams task,  $F(2,108) = 9.75, p < .001$  and also for perceived control by the subjects with respect to the preceding, helplessness training task,  $F(2,107) = 4.98, p < .01$ . Follow up Tukey's HSD tests indicated significant differences between all pairs on both perceived ability and perceived control on the helplessness training task. Mean scores for perceptions concerning control on the subsequent, anagrams task were in the same direction as hypothesized but were not significantly different.

Table 1 Means and Standard Deviations of Outcome Variables, by Experimental Group

	<u>Control</u>	<u>Low Helplessness</u>	<u>High Helplessness</u>
Perceived Ability - future task			
Mean	4.3	3.7	3.0 ***
SD	(1.2)	(1.0)	(1.4)
Perceived Control - initial task			
Mean	7.8	5.2	3.5 *
SD	(4.9)	(5.7)	(6.1)
Perceived Control - future task			
Mean	8.6	7.4	6.2
SD	(4.0)	(4.9)	(5.6)

\*  $p < .01$   
 \*\*\*  $p < .001$

In order to explore the impact of subject attributions on subject feelings following the helplessness training, a series of regression analyses were performed. No significant relationships were found between ASQ scores and perceptions of ability or control, either as main effects or interacting with the helplessness training.

## **DISCUSSION**

The purpose of the present study was to further explore the reactions associated with expected control over future outcomes following different levels of helplessness training. Differences were found both for perceived control on the helplessness task and perceptions of ability on the anticipated forthcoming task (personal helplessness). No significant differences were found in terms of expectations of control over the anticipated subsequent anagram task (universal helplessness). The measure of perceived control over the helplessness task can be seen as a manipulation check, with subjects accurately reporting the different levels of contingent feedback received across the three groups. Results of the study in terms of feelings of personal and universal helplessness are consistent with a study conducted by Mikulincer (1994). In this study, subjects undergoing helplessness training and then observing confederates working on an independent task reported significantly lower feelings of efficacy concerning their own likelihood of performing the independent task successfully. However, no significant differences were found between helplessness trained and control subjects when queried about the extent to which the confederates had control over the task.

The implications of these findings are both theoretically and practically relevant. As argued by Mikulincer (1994), the expectation of future control in most of the learned helplessness literature is based on the universal component of expectation of control, or a learned lack of contingency between behaviors and outcomes. If beliefs concerning one's self-efficacy to perform future tasks are also impacted, and if they are impacted to a greater degree than are behavior/outcome contingency beliefs, strategies intended to counteract the effects of helplessness training are necessarily different. In other words, strategies developed to increase feelings of self-efficacy are different than those intended to increase beliefs in the extent to which the individual possesses the response set required to successfully perform the task. Mikulincer (1994) goes as far as to argue that individuals performing tasks subsequent to being exposed to helplessness training usually easily learn that the contingencies are different in the new tasks; that they do have control over the task outcome. The motivational and performance deficits that follow learned helplessness training, according to this viewpoint, MUST be based on low feelings of efficacy concerning task performance. Thus the expectation of lack of control over a particular task may not stem from feelings of low outcome expectancy, but rather from feelings of lack of skills or abilities to successfully perform the task.

From an organizational standpoint, the results of the present study suggest the importance of training and re-training as a means to positively affect feelings of self-efficacy. According to Bandura (1977, 1986), the most important source of information used by individuals in assessing their level of self-efficacy is performance accomplishment. If exposure to uncontrollable outcomes results in lowered performance (and lowered expectations of successful performance due to lowered feelings of efficacy), performance based training/retraining programs providing employees with opportunities to be successful would help to address the deficits associated with feelings of helplessness.

Finally, Martinko & Gardner (1982), in a paper proposing a model of organizationally induced helplessness, note that the "properties of formal organizations often inadvertently condition employee failure and that this behavior frequently continues even after environmental changes make success possible" (p. 195). Aspects of the organizational environment such as traditional performance appraisal systems, flawed reward systems, poor leadership, personnel policies, and organizational structure all are said to lead to feelings of helplessness on the part of organizational members. If organizationally induced helplessness results in lowered feelings of performance efficacy, both for new tasks and those currently being performed by these members, strategies to increase these feelings are critical. The results of the present suggest that feelings of personal helplessness, rather than universal helplessness, are impacted to a greater extent by exposure to uncontrollable events.

### LIST OF REFERENCES

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned Helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, *87*, 49-74.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, *84*, 191-215.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall Inc.
- Bandura, A. (1997). Self-Efficacy: The exercise of control. New York, NY: W.H. Freeman and Company.
- Levine, M. (1966) Hypothesis behavior by humans during discrimination learning. Journal of Experimental Psychology, *71*, 331-338.
- Maier, S. F. (1970). Failure to escape traumatic electric shock: Incompatible skeletal-motor responses or learned helplessness? Learning and Motivation, *1*(2), 157-169.
- Martinko, M. J. & Gardner, W. L. (1982). Learned helplessness: An alternative explanation for performance deficits. Academy of Management Review, *7*, 195-204.
- Mikulincer, M. (1994). Human learned helplessness: A coping perspective. New York, NY: Plenum Press.
- Mikulincer, M., & Nizan, B. (1988). Causal attribution, cognitive interference, and the generalization of learned helplessness. Journal of Personality and Social Psychology, *55*, 470-478.
- Overmeir, J. B., & Seligman, M. E. P. (1967). Effects of inescapable shock upon subsequent escape and avoidance responding. Journal of Comparative and Physiological Psychology, *63*, 28-33.
- Peterson, C., Semmel, A., von Baeyer, C. Abramson, L. Y., Metalsky, G. I., & Seligman, M. E. P. (1982). The Attributional Style Questionnaire. Cognitive Therapy and Research, *6*, 287-299.
- Pittman, N. L., & Pittman, T. S. (1979). Effects of amount of helplessness training and internal-external locus of control on mood and performance. Journal of Personality and Social Psychology, *37*, 39-47.
- Roth, S. (1980). A revised model of learned helplessness in humans. Journal of Personality, *48*, 103-133.
- Seligman, M. E. P. (1975). Helplessness. San Francisco: Freeman.
- Seligman, M. E. P., & Maier, S.F. (1967). Failure to escape traumatic shock. Journal of Experimental Psychology, *74*, 1-9.
- Seligman, M. E. P., Maier, S.F., & Solomon, R. L. (1971). Unpredictable and uncontrollable aversive events. In F. R. Brush (Ed.), Aversive conditioning and learning (pp. 347-400). New York: Academic Press.

- Sweeney, P. D., Anderson, K., & Bailey, S. (1986). Attributional style in depression: A meta-analytic review. *Journal of Personality and Social Psychology*, *50*, 974-991.
- Tennen, H., & Herzberger, S. (1985). Attributional Style Questionnaire. In D. J. Keyser, and R. C. Sweetland (Eds.), *Test Critiques*, Vol. 4. pp. 20-30) Kansas City: Test Corp of America.

**Authors:**

**Stephen B. Schepman** is a Professor of Business and Psychology at Central Washington University (CWU), Ellensburg, Washington, U. S. A. His current research areas include workplace motivation, group development, and personality factors in organizations. Stephen holds a Ph.D. in Industrial/Organizational Psychology from Purdue University, U. S. A.

**F. Lynn Richmond** is an Associate Professor of Business Administration at Central Washington University (CWU), Ellensburg, Washington, U. S. A. His current research areas include strategic management, organizational behavior and workplace motivation. Lynn holds a Ph.D. in Organizational Sociology from the University of Oregon, U. S. A.