

EXPECTATIONS AND ENTREPRENEURIAL PERSISTENCE

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Marieke A. Pieterman

**College of William & Mary
Williamsburg, VA 23187-8795**

Kelly G. Shaver

**Department of Psychology
College of William & Mary
Williamsburg, VA 23187-8795
804-221-3885
FAX: 804-221-3896**

**Elizabeth J. Gatewood
University of Houston SBDC
1100 Louisiana, Fifth Floor
Houston, TX 77022
713-752-8444**

Author to be contacted: Kelly G. Shaver

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Marieke Pieterman, College of William & Mary
Kelly G. Shaver, College of William & Mary
Elizabeth J. Gatewood, University of Houston

ABSTRACT

Persistence following failure is a critical issue for entrepreneurship theory and practice. Unfortunately, most research on the subject has had to rely on interview studies that are subject to alternative explanations. The present study experimentally induced expectations of entrepreneurial success or failure in Executive MBA students. Results showed diminished persistence on a task related to business creation among subjects led to expect failure.

INTRODUCTION

Entrepreneurs rarely succeed on their first try; plenty of strike-outs precede the home run. The important issue for entrepreneurship researchers, and for policy makers interested in encouraging repeated attempts at business formation is, "What motivates an individual to persist following failure?" In the general management literature, three different accounts have been proposed for the relationship between prior success or failure and subsequent work motivation. Chronologically, these are expectancy theory (Vroom, 1964; see also Klein, 1989; Miller & Grush, 1988; Mitchell, 1982; Porter & Lawler, 1968), goal-setting theory (Locke, 1968; see also Katzell & Thompson, 1990), and self-efficacy theory (Bandura, 1977). Although these three theories can be construed to make differential predictions about the relationship between expectancy and performance¹ _ recent work has attempted to integrate the three formulations into a single view of work motivation (Locke & Latham, 1990; Locke, Motowidlo, & Bobko, 1986).

Can any of these principles be used to account for entrepreneurial activity? There have been suggestions that this may be the case at least for expectancy theory (Gatewood & Shaver,

¹ This relationship should actually be between expectancy and *effort*, because of the possibility that external factors out of the individual's control might intervene between the expenditure of effort and the final performance (often as judged by the individual's superiors).

1991; Gatewood, Shaver, & Low, 1991; Locke & Latham, 1990) but none of the accounts has been subjected to experimental test in an entrepreneurial context. That is the purpose of our research.

Correlational studies of the relationship between expectancy and entrepreneurial success abound, but all such studies suffer from the problem that plagues virtually any correlational research: the inability to identify the direction of causality. Is the expectancy of success high because there has been previous success, is there success because there has been a prior high expectancy, or are both the expectancy and the success really caused by some unmeasured third variable? The way to make clear causal statements about the effects of expectancy is, of course, to manipulate that expectancy in an experimental context. Such manipulations cannot ethically be performed if the dependent variables are *real* business success and failure, so most experimental studies have merely asked people to *imagine* that they either possessed or did not possess entrepreneurial traits, or to imagine that they began a business that became either a success or a failure (e.g., Gatewood, Shaver, & Low, 1991). Occasionally, studies have manipulated entrepreneurial expectations as did research by Shaver, Williams, & Scott (1991). But this study tested students with no prior business experience and used dependent variables (creativity, and expressed willingness to take risk) not intimately related to the process of founding a venture.

To overcome these limitations, the present research sought to manipulate expectancy in the presence of some real incentives, using subjects who more closely approximate the population of business founders, and collecting dependent variables more clearly representative of the business planning process. On the basis of past research and theory, we predicted that higher expectancies for entrepreneurial success would lead to greater entrepreneurial persistence.

METHOD

Subjects and Stimulus Materials

Subjects were 26 EMBA students from the University of Houston. In brief, these individuals were asked to participate in a two-stage process that was claimed to be part of the selection process for teams to compete in a number of national business plan contests. Although EMBA students consider the monetary prizes associated with success in such competitions minimal, the high founding rate of successful plans can be considered an important, and real, incentive to participate and do well.

In Phase 1 the subjects filled out a bogus entrepreneurial personality inventory, the Entrepreneurship Research Scale (ERS). The Entrepreneurship Research Scale (ERS), devised by Shaver, Williams, and Scott (1991), includes a standard locus of control scale and has been successfully used to create beliefs in one's entrepreneurial tendencies. At the same time, subjects read an abbreviated business plan for a corporate transportation venture and indicated what additional information would be needed to: (a) determine whether the venture should lease or purchase its planes, and if the former, what sort of lease, and (b) establish projections of possible

demand for the service for the next 4 years. Subjects were told that their scores on the ERS, together with their answers to the two questions, would be compared to a normative group of MBA students who have gone on to found successful businesses. They were also told that they would receive a computerized analysis of their performance at the next week's class session, at which time they were to complete the second Phase of the selection process.

In Phase 2 of the study, conducted one week after Phase 1, subjects received false feedback about their performance in Phase 1. This feedback manipulated expectancy by suggesting to each person that s/he either possessed the characteristics of successful founders or did not possess such characteristics. Immediately after receiving the false feedback, subjects again read the abbreviated business plan, and then wrote suggestions for how the plan might be improved.

Goal Setting and Expectancy

All of the instructions for Phase 1 included a description of the task and a request for the subject to place him/herself in the role of the entrepreneur behind the business proposal. For half of the subjects these orienting instructions to Phase 1 also asked that the person "think about the performance goals you have for the company. Set challenging but realistic objectives for yourself and the company. Remain committed to your goals, regardless of any temporary setbacks the company may suffer." This is a standard manipulation of goal-setting. The other half of the subjects were merely told to "do the best you can," a standard motivational alternative to specific goal-setting. The goal-setting instructions, which were given both in Phase 1 and Phase 2, were embedded in the general directions for what to do with the business plan.

As promised, a week after Phase 1 all subjects received individualized computer-generated feedback regarding their performance on the planning task and the ERS. The printed feedback included a "personality profile" that, although slightly different for each person, either showed a close match to the profile of the "successful business founders" or showed several critical differences from that profile. This feedback was the manipulation of expectancy for entrepreneurial success. Informal reactions during testing indicated that subjects had attended closely to the false feedback.

Dependent Measures

After they had been given ample opportunity to examine their individual profiles, subjects were asked to look through the business plan a second time and to (a) indicate what specific information would be necessary to make the proposal into an acceptable business plan, and (b) make creative suggestions that would improve the overall business plan. After responding to these two open-ended questions, subjects completed an "Evaluation Questionnaire" that embedded measures of self-efficacy in among filler items having to do with the business proposal.

There were four major dependent variables for the study, derived from the two open-ended questions. First, the number of *words* used in each of the two answers was taken as a direct measure of persistence at the task. Second, for each answer, the individual suggestions for

all subjects were combined into a single list, and then each subject's *proportion* of the total responses was taken as a secondary measure of persistence and creativity. Expectancy theory predicts that negative feedback will decrease persistence; goal setting theory predicts that setting specific objectives will enhance persistence in the face of failure.

RESULTS

The data were analyzed as a 2 x 2 (Goal Setting x Expectancy) analysis of covariance, with locus of control scores and self-efficacy scores as covariates. The analyses of covariance produced results identical those produced in the comparable analysis of variance, so the results reported are from the analysis of variance. Although there were both male and female students in the class, there were too few females to permit using subject sex as an additional factor in the statistical design. Consequently, the data reported here are combined across sex.

The analysis revealed no effects for the goal setting manipulation on any of the four dependent measures of persistence. Moreover, the initial analyses of covariance indicated that neither locus of control nor self-efficacy influenced the persistence results. Indeed, across the measures of persistence there was only one significant finding: Participants led to expect entrepreneurial success wrote nearly twice as many words in their creative suggestions for the business plan proposal ($M = 24.31$) as did participants led to expect entrepreneurial failure ($M = 13.46$), $F(1, 22) = 5.14, p < .05$. Although the percentages of creative suggestions offered followed the same pattern ($M_s = 7.46$ and 4.77 for the positive and negative expectancy conditions, respectively), this difference did not reach conventional levels of statistical significance.

The setting of challenging but realistic goals has been so important in other research that one wonders why it did not affect persistence in the present context. Whenever an independent variable fails to produce anticipated differences, the first explanation is methodological: Subjects were simply not affected by a brief, written manipulation, despite the fact that it was reiterated in both Phases of the study. There is, however, evidence against this alternative explanation, in the form of significant goal-setting effects on a number of measures included among the questions designed to assess self-efficacy. For example, subjects in the goal-setting condition were more likely to agree with the statement "Success in business requires just the sort of personal adaptability that I possess" ($M = 6.18$) than were subjects in the non-goal-setting condition ($M = 5.23$), $F(1, 20) = 5.33, p < .05$. This difference, and other comparable questionnaire responses showing goal-setting effects, indicate that the goal-setting manipulation was perceived as intended. It just did not have any significant effects on measures of persistence.

CONCLUSIONS

It is remarkable, given the small cell sizes, that this study obtained significant results of

any sort. The fact that expectancies for success and failure produced differences in a relatively direct measure of *persistence* -- number of words written about the business plan -- is a strong indication of their power. Many of the subjects in this research had prior business experience, yet the expectancy instructions were still capable of altering behavior on the task. Whether positive expectancies can produce business success remains to be determined, but this study takes an important step in that direction by showing that persistence, an essential ingredient of business success, can be affected by expectancies regarding personal capabilities. In a broader context, the research also shows that how people *think* about tasks related to new venture creation is more important than some of the personal qualities (locus of control, self-efficacy) they bring with them into the experiment.

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Biographical Sketches

Marieke A. Pieterman

Marieke A. Pieterman is a 1992 graduate of the College of William & Mary, with an undergraduate major in management. Originally from the Netherlands, Marieke has learned the art of entrepreneurship from her father, an entrepreneur in the transportation business. She has taken courses on Small Business Management and Entrepreneurship, and Research in Entrepreneurship, and has conducted in-depth interviews with several local entrepreneurs.

Kelly G. Shaver

Kelly G. Shaver is Professor of Psychology at the College of William & Mary. From 1977-1979, Dr. Shaver was Program Director for Social and Developmental Psychology in the Division of Behavioral and Neural Sciences at the National Science Foundation. He has served on research review committees for the National Science Foundation, the National Institute of Mental Health, and on Small Business Innovation Research review committees at the National Institutes of Health and the National Science Foundation. Professor Shaver has served on the editorial boards of the *Journal of Personality and Social Psychology*, and the *Journal of Personality*, and currently serves on the editorial boards of the *Journal of Applied Social Psychology*, *Entrepreneurship Theory and Practice*, and *Entrepreneurship and Regional Development*. He is the author of three books, co-author of two others, and is author or co-author of over 80 papers and research articles on attribution processes, psycholegal issues, and entrepreneurship. Shaver holds B.S. and M.S. degrees in Psychology from the University of Washington, and a Ph.D. in Psychology from Duke University.

Elizabeth J. Gatewood

Elizabeth J. Gatewood is Director of the University of Houston Small Business Development Center. She holds an appointment as Research Professor in the Department of Management at the College of Business Administration of the University of Houston. Dr. Gatewood served served as the Director of the Center for Business and Economic Studies at the University of Georgia from 1983 to 1989. She holds a B.S. in Psychology from Purdue University, and an MBA and Ph.D. in Business Administration from the University of Georgia with a specialty in strategy. She has taught at the Nijenrode Institute of Business in the Netherlands. Gatewood is the author of over 45 articles, papers, and book sections on entrepreneurship, innovation, strategic management, and financial analysis. She is a member of the editorial boards of *Entrepreneurship Theory and Practice* and the *Small Business Forum*; she is the current Chair of the Entrepreneurship Division of the Academy of Management.