



Intention to reengage in entrepreneurship: Performance feedback, sensation seeking and workaholism

Sharon A. Simmons^{a,*}, Jon C. Carr^b, Dan Hsu^c, S. Bartholomew Craig^d

^a Department of Accounting, Finance, & Entrepreneurship, College of Business, Jackson State University, 1400 Lynch St., Jackson, MS 39217, United States

^b Department of Management, Innovation, & Entrepreneurship, Poole College of Management, North Carolina State University, Campus Box 7229, Raleigh, NC 27695, United States

^c Department of Marketing and Management, College of Business, North Dakota State University, P.O. Box 6050, Fargo, ND 58108, United States

^d Department of Psychology, North Carolina State University, Campus Box 7650, Raleigh, NC 27695, United States

ARTICLE INFO

Keywords:

Entrepreneurship
Sensation-seeking
Performance feedback
Workaholism
Intentions

ABSTRACT

This study investigates whether prior success or failure feedback motivates individuals to reengage in entrepreneurship. Three studies test the moderating effects of the dispositional factors of sensation-seeking and workaholism on this relationship. Study 1 is a hybrid experiment that employs video manipulations to engage 136 student participants. Study 2 is a field survey with a sample of 189 real-world entrepreneurs who had shut down or discontinued a prior business. Study 3 is also a field survey with a sample of 340 ex-entrepreneurs who do not currently operate a business. The results of the three studies demonstrate that entrepreneurs' compulsion (i.e., sensation seeking and workaholism) can suppress cognition (i.e., prior performance feedback) in the decision of whether to reengage in entrepreneurship. These findings provide a psychological perspective that extends beyond commonly studied cognition and overconfidence theories.

1. Introduction

At different stages of the entrepreneurial process, entrepreneurs will receive feedback on individual and firm performance that shapes their future actions (Matsui, Okada, & Inoshita, 1983). In some cases, the performance feedback will be positive, suggesting successful outcomes, such as monetary and nonmonetary rewards of prior entrepreneurial actions (Alstete, 2008). The performance feedback may also be negative, suggesting failed outcomes, such as monetary losses and punishments for prior entrepreneurial actions (Artinger & Powell, 2015). In both cases, the entrepreneur receiving the performance feedback will be faced with the decision of exiting or reengaging in the entrepreneurial activities (Hsu, Shinnar & Anderson, 2019; Hsu, Wiklund, & Cotton, 2017).

As such, performance feedback is likely an important consideration in the decision to reengage in entrepreneurship. Even so, there are still considerable differences within the literature often associated with the characteristics of the entrepreneur themselves that add confusion to the specific ways that performance feedback influences reengagement. For example, studies suggest that a person's self-employment experience, irrespective of the performance feedback (either positive or negative),

increases intentions (Carroll & Mosakowski, 1987). Research has also demonstrated that a person's escalation of commitment can create different engagement intentions, in conjunction with failure or success feedback (Hsu et al., 2017). Finally, using insights from regulatory focus theory (Avnet & Higgins, 2006), researchers have applied the concepts of regulatory fit to show that prevention-focused personality traits affect the feedback-intentions to reengage relationship (Simmons, Carr, Hsu, & Shu, 2016). These studies and others highlight that the relationship between performance feedback and the decision to reengage in entrepreneurship are also influenced by individual characteristics, to include dispositional and attitudinal components which shape how this feedback is internalized and acted upon.

Recent qualitative research on serial entrepreneurship specifically explores one such set of individual characteristics - those related to compulsion or addiction - and how they might manifest in habitual entrepreneurship behavior (Spivak, McKelvie & Haynie, 2014). Yet there are currently no insights on the role that these compulsive dispositions may play in the performance feedback - decision to reengage relationship. It is clear that compulsive dispositions could have significant personal and venture related implications (Spivack & McKelvie, 2018), yet there is a considerable gap in how they may influence this

* Corresponding author.

E-mail addresses: sharon.simmons@jsums.edu (S.A. Simmons), jon.carr@ncsu.edu (J.C. Carr), dan.hsu@ndsu.edu (D. Hsu), bart_craig@ncsu.edu (S.B. Craig).

relationship.

Therefore, the purpose of the current study is to explore this important research question – Namely that because entrepreneurial entry and exit decisions are functions of both individual disposition and performance feedback, a better understanding of compulsive dispositions that shape decision-making may provide a more nuanced explanation of why some entrepreneurs persist in entrepreneurship (Klotz & Neubaum, 2016; Simmons et al., 2016). Specifically, we theorize and empirically test the effects of the compulsive dispositions of sensation-seeking and workaholism, and how these characteristics suppress the cognitive processing of performance feedback when deciding whether to persist in entrepreneurship.

There is an emerging stream of research in the organizational behavior literature examining the disposition of entrepreneurs as they navigate the excitement (“the rush”) and work demands associated with the novelty and uncertainty of launching new ventures (Gorgievski, Bakker, & Schaufeli, 2010; Grimes, 2018). Spivack and McKelvie (2018) suggest that the excitement of entrepreneurial action is attractive to entrepreneurs with sensation-seeking trait dispositions, and also suggest the potential influence that workaholism may play in habitual entrepreneurship. Like sensation-seeking, workaholism can be conceptualized and measured as a trait-like disposition, though others have also treated it as a behavioral pattern (e.g., Spivack & McKelvie, 2018). The important point for the current discussion is that workaholism is a consistent behavioral tendency that persists across situations and occasions.

In this paper, we theorize and empirically test the moderating effects of sensation-seeking and workaholism on the relationship between business performance feedback and intentions to reengage in entrepreneurship activity. Our construct of reengagement adapts the Shepherd (2015) perspective of entrepreneurship as a series of activities that entrepreneurs engage in as part of the entrepreneurial process. Three studies were conducted with samples of students and real-world entrepreneurs. Study 1 is an experiment with a hybrid design of random assignment (for the predictor) combined with non-random assignment (for the moderator; Hsu, Simmons, et al., 2017). The experiment employed a video manipulation to engage a final sample of 136 student participants in strong experimental realism (Grégoire, Binder, & Rauch, 2019). Study 2 is a field survey with a sample of 189 real-world entrepreneurs who had shut down or discontinued a prior business. Study 3 is also a field survey with 340 ex-entrepreneurs who do not currently own a business. The results of the three studies were largely consistent. Sensation-seeking and workaholism moderated the effects of success and failure feedback on intentions to reengage in entrepreneurship.

These studies make important contributions to the literature. First, the question of why some entrepreneurs do or do not reengage following success and failure events is a hot topic in entrepreneurship research (Hogarth & Karelaia, 2012; Hsu, Wiklund, et al., 2017). Some researchers approach this question from human, financial and social capital perspectives (Gompers, Kovner, Lerner, & Scharfstein, 2010; Jenkins, Wiklund, & Brundin, 2014; Minniti & Bygrave, 2001; Westhead & Wright, 1998). Other researchers use an institutional lens, focusing on normative expectations (Simmons et al., 2014, 2019). Psychological perspectives, however, have received less attention, although decisions to persist in entrepreneurial careers are shaped by personality dispositions and cognitive responses to situational cues (Patel & Thatcher, 2014). Our paper provides a psychological perspective that extends beyond commonly studied cognition (Monsen & Urbig, 2009) and overconfidence (Hayward, Forster, Sarasvathy, & Fredrickson, 2010) theories to suggest that other less studied dispositions, such as sensation-seeking and workaholism (Spivack & McKelvie, 2018), can provide insights into why some entrepreneurs stop pursuing entrepreneurial actions, while others reengage in entrepreneurial pursuits.

Second, we contribute to the organizational literature on workaholism. At present, the number of empirical studies on workaholism are limited (Ng, Sorensen, & Feldman, 2007) and are focused on employees

within established organizations (Porter, 1996; van den Broeck et al., 2011). The entrepreneur role, however, is different from the employee role. While the manager or employee is tasked with day-to-day decision making of an established organization, “the entrepreneur is part of the complex process of new venture creation” (Gartner, 1988, p. 57).

As Stephan (2018) notes, embedded in entrepreneurial work are unique interrelationships among the entrepreneur’s personality and non-work roles, uncertain market and competitive environments, and external stakeholder pressures. These unique interrelationships and identity attachments present different types of stressors and needs for self-regulation that may not exist for employees engaged in organization work. For instance, one interesting finding regarding organization work is that employees become more positively engaged in work as they add their own personal resources and strengthen their subjective control over their environments (Bakker & van Wingerden, 2021). In entrepreneurship contexts that are characterized by risk and uncertainty, however, the continued addition of personal resources can lead to escalations of commitment that result in business failures, and potentially a permanent exit from entrepreneurial work (McCarthy, Schoorman, & Cooper, 1993).

Third, entrepreneurship provides a different context to study the sensation-seeking trait disposition. From the psychology literature, we know that sensation seekers seek out and engage in activities like gambling (Reardon, Wang, Neighbors, & Tackett, 2019), drugs (Hamdan-Mansour, Mahmoud, Al Shibi, & Arabiat, 2018) and high-risk sexual activities (Kalichman, Heckman, & Kelly, 1996) that are indicative of reduced self-regulation and self-control. However, although there is risk and uncertainty in entrepreneurship activity, the planning that needs to take place for entrepreneurial action requires some degree of self-regulation and controlled decision making (Haynie, Shepherd, & Patzelt, 2012); thereby raising the question of what role sensation-seeking would be expected to play in entrepreneurial behavior.

In summary, we seek to explore the important gap that exists with respect to the role of individual compulsions and the performance feedback-intentions to reengage in entrepreneurship relationship. Our theoretical review, hypotheses development, and empirical study development is provided below.

2. Theoretical background

2.1. Success and failure performance feedback

The success or failure of entrepreneurship activity can be conceptualized using objective measures or subjective perceptions of performance (Jenkins & McKelvie, 2016). The rise or fall of revenue, expenses, gains, and losses provide objective feedback on firm performance. The perceptions of entrepreneurs as to whether their firms or individual performances are successes or failures are subjectively shaped by the match between the actual returns or outcomes and their expected returns or outcomes. This means that entrepreneurs can subjectively perceive positive revenues and gains as failure feedback, if higher returns or gains were anticipated. They can also perceive net operating and capital losses to be success feedback at acceptable threshold levels (Jenkins & McKelvie, 2016). Since the perception of success or failure varies from person to person, this paper conceptualizes performance feedback from the subjective perspective, that is, the person’s self-interpretation of success or failure.

Using a different theoretical lens, a number of studies have examined the effects of success and failure feedback on intentions to reengage in entrepreneurship, finding that success and failure feedback can trigger different behavioral responses (Lee & Chiravuri, 2019; Ucbasaran, Shepherd, Lockett, & Lyon, 2013). For example, using an adaptation of prospect theory (Kahneman & Tversky, 1979), researchers have found that entrepreneurs who encounter financial losses (failure feedback) have heightened intentions to reengage in entrepreneurship due to escalated commitments to recuperate their losses (Hsu, Wiklund, et al.,

2017). Studies also use cognition theories to suggest that the intentions of entrepreneurs to reengage in entrepreneurship are influenced more by efficacy beliefs and dispositional tendencies than by external performance feedback (Gompers et al., 2010; Jenkins et al., 2014; Minniti & Bygrave, 2001; Parker, 2013; Simmons et al., 2016; Westhead & Wright, 1998). For example, research has found that while positive performance (success feedback) generally motivates entrepreneurs to persist in entrepreneurial careers, this relationship is reversed for entrepreneurs with a strong prevention-focused personality orientation (Simmons et al., 2016). As another example, generative learning theories suggest that entrepreneurs have cognitive schemas that enrich their learning from practical experiences (be they success- or failure-related) and increase their likelihood of reengaging in entrepreneurship activity (Lafuente, Vaillant, Vendrell-Herrero, & Gomes, 2018; Stam & Schutjens, 2006; Zhu, Hsu, Burmeister-Lamp, & Fan, 2018).

2.2. Need for further study

Although prior studies use different lenses to explain intentions to reengage in entrepreneurship, the implicit assumption is that the entrepreneurs will learn from success and failure performance feedback (Cope, 2011; Shepherd, 2003) and that there will be causal impacts on future decision making (Walsh & Cunningham, 2017), including decisions to exit or restructure engagement. What we know about the sensation-seeking and workaholism personality dispositions may challenge these assumptions and is, therefore, worthy of further study. These variables have been associated with disinhibited behaviors that disregard feedback and to impulsive decision making under uncertainty (Andreassen, Griffiths, Sinha, Hetland, & Pallesen, 2016; Xu et al., 2019). An emerging stream of studies generally find disinhibitions to be predictive of intentions to reengage in entrepreneurship versus conventional employment (Nofal, Nicolaou, Symeonidou, & Shane, 2018; Verheul et al., 2015; Wiklund, Patzelt, & Dimov, 2016). Specifically, with regard to the disinhibitions of sensation seekers, a few studies (Nicolaou, Shane, Cherkas, & Spector, 2008; Spivack & McKelvie, 2018, 2021; Spivack et al., 2014; Wiklund et al., 2017) provide conceptual and empirical evidence of the positive relationship between this individual difference variable and entrepreneurial activities.

Entrepreneurs as a group are characterized in the literature as having higher levels of sensation-seeking and workaholism, when compared to corporate managers (Brandstätter, 2011; Nicolaou et al., 2008). Sensation-seeking (Patel & Thatcher, 2014) and workaholism (Spivack et al., 2014) have also been suggested to be positively correlated with self-employment in general. Lerner, Hunt, and Dimov (2018) further these propositions, with their suggestion that entrepreneurship is sometimes not the outcome of reasoned actions, but rather an impulsive and non-deliberative behavior that serves as the basis of entrepreneurial actions. It is important to understand how sensation-seeking and workaholism affect entrepreneurial decision making and actions taken following success and failure performance feedback.

2.3. Sensation-Seeking

The theoretical construct of sensation-seeking has been studied for many years and is considered to be a core facet of the “Big Five” personality dimension of Extraversion (Barlow, Woodman, & Hardy, 2013; Zuckerman, 1979). Sensation-seeking is the dispositional desire to engage in unusual, novel, or intense sensations and experiences (Barlow et al., 2013). Sensation-seeking has been linked to impulsive aggressive behaviors that are emotional reactions to provocation (Horvath & Zuckerman, 1993) as well as to deliberate and goal oriented aggressive behaviors that are planned (Schumpe, Bélanger, Moyano, & Nisa, 2020). Prior sensation-seeking research has shown that this personality trait is relatively stable over the lifespan of an individual, although there can be some fluctuations or spikes in the need for stimulation (Lynne-Landsman, Graber, Nichols, & Botvin, 2011). Prior research also shows

that the focus of sensation-seeking behaviors can be reoriented. Schumpe et al. (2020), for example, demonstrated the use of peaceful demonstration as an intervention that reorients behavior away from political violence.

While it may appear to be conceptually similar, sensation-seeking has characteristics that make it somewhat different from risk propensity (Macko & Tyszka, 2009). For sensation seekers, the physiological response from high-risk activity can be rewarding and potentially reinforcing in and of itself. Individuals with sensation-seeking trait dispositions are averse to repetition and routines and get pleasure from dynamic or new situations (Nicolaou et al., 2008; Wiklund et al., 2017). This, in turn, heightens the level of stimulus they need to achieve the physiological responses they desire from their behaviors and situational contexts. Because sensation-seekers have preferences for high-risk activities that may also draw on their skills and interests, there is also the preference and potential for their activities to have higher reward outcomes (Zuckerman, 1994). This potential for high returns has garnered the interest of entrepreneurship researchers (Wiklund et al., 2017).

2.4. 5 Moderating effects of sensation seeking on performance feedback

The risk and uncertainty of the entrepreneurship environment (Knight, 1921) provides an ideal context for studying the disinhibitions and impulsivity of individuals with the sensation-seeking trait disposition. The relationship between success and failure feedback and decision making is influenced by individuals’ abilities to extract information about prior performance and to adjust their behaviors accordingly (McCormick & Telzer, 2017). Leicht et al. (2013) examined the processes through which different personality traits affect the processing of feedback. They found sensation-seeking individuals to have a low reactivity to loss that may reflect a bias in how these individuals process feedback events. Based on their findings, Leicht et al. (2013) propose that individuals high in the sensation-seeking trait disposition may have a positive bias in their performance expectations that can interfere with their attention and working memory for negative feedback events.

Similarly, Xu et al. (2019) found that high sensation seekers have behavioral and neural insensitivities to performance outcomes during decision-making under uncertainty. Such blunted sensitivity to feedback when integrated into ongoing decision-making processes has been linked to increased risk-taking behavior (McCormick & Telzer, 2017). For example, Zheng and Liu (2015) found that sensation-seeking moderated the effect of the magnitude of gains and losses on behavioral choice, with high sensation seekers showing no change in behavioral strategy at different risk levels.

Drawing upon this prior literature, we argue that entrepreneurs who are high sensation seekers have reduced sensitivities to success and failure feedback in their decision-making process (Lawson et al., 2012). High sensation-seeking entrepreneurs will move more rapidly and make quicker decisions that may not integrate performance feedback in risky and uncertain contexts (Gancarz, Robble, Kausch, Lloyd, & Richards, 2012). Accordingly, our first hypothesis states that:

Hypothesis 1. Sensation-seeking will moderate the effects of prior performance feedback (e.g., success or failure) on intentions to reengage in entrepreneurship, such that the relation between feedback and intentions to reengage will become weaker at higher levels of sensation-seeking.

2.5. Workaholism

Workaholism is defined in the organizational behavior literature as an internally driven “tendency to work excessively hard and to be obsessed with work, which manifests itself in working compulsively” (Shimazu, Schaufeli, Kamiyama, & Kawakami, 2015, p. 18; see also Schaufeli, Taris, & Bakker, 2008). Workaholism, as a consistent pattern of behavior, has dispositional characteristics in that it persists across

time and situations, but it can also be activated by situational features of the work environment (Mazzetti, Schaufeli, & Guglielmi, 2014; Součková, Vaculík, & Procházka, 2014). In other words, workaholism has a behavioral dimension of working excessively and a cognitive dimension of working compulsively.

In some prior studies, workaholism has been framed positively as a passion or joy for working that can result in high productivity, job crafting, and job satisfaction (Hakanen, Peeters, & Schaufeli, 2018). In other prior studies, workaholism has been framed negatively as a syndrome (Aziz & Zickar, 2006) or obsessive behavior that negatively impacts performance (Burke, 2000; Cherrington, 1980; Killinger, 1991; Robinson, 1989; Schaef & Fassel, 1988; Taris, Geurts, Schaufeli, Blonk, & Lagerveld, 2008). We do not examine this dichotomy in our study. Rather, we focus on the effects of dispositional workaholism on reengagement, in light of performance feedback.

2.6. Moderating effects of workaholism on performance feedback

To better understand the moderating effects of the workaholism disposition on the feedback-reengagement relationship, we draw upon employee studies in the organizational behavior literature (Zeijen, Peeters, & Hakanen, 2018). Falvo, Visintin, Capozza, Falco, and De Carlo (2013) find that while some employees incorporate observations of performance feedback into decision-making processes, workaholic employees because of their activity orientation attempt to shorten the distance between current and desired states by quickly engaging in new tasks without observing or assessing the process inefficiencies or failures of prior tasks (Zeijen et al., 2018). This focus on rapid movement with a failure to process feedback may explain why prior studies found negative associations between higher employee scores on workaholism and individual, interpersonal, and organizational outcomes (Clark, Michel, Zhdanova, Pui, & Baltes, 2016). Prior studies also find that workaholics self-punish and experience guilt when they are unable to work towards their goals (Schaufeli et al., 2008; Zeijen et al., 2018).

Because of differences between employees and entrepreneurs (or the self-employed) recognized in the literature, there is a need to better understand the effects of workaholism in the context of entrepreneurs and entrepreneurship (Spivack & McKelvie, 2018, 2020). As Gorgievski et al. (2010) state, self-employed individuals and employees have different predictors of contextual performance, i.e., behaviors that are aimed toward changing or implementing new organization processes (Sonntag & Frese, 2002). For example, workaholism and entrepreneurship are both strongly correlated with achievement-oriented personality traits, such as the need for achievement (nAch) (Clark et al., 2016; McClelland, 1965). Gorgievski and colleagues also found that self-employed individuals reported working more excessively than employed individuals and stronger negative relationships between working compulsively and performance. Building on these findings, we argue that it is important to examine whether the moderating effects of workaholism on the processing of success or failure feedback by employees, as predicted by the organizational literature, will also exist in the entrepreneurship context.

As Clark and colleagues (2016) discuss, workaholics are likely to persist in their engagement when the attributes of the work domain fit their behavioral tendencies. Specifically, the researchers found that managerial status, work enjoyment, work engagement overall and absorption were positively related to workaholism (Clark et al., 2016). In general, entrepreneurs are venture managers who commit their whole selves – physically, emotionally, and cognitively to their work (Kahn, 1990). However, those entrepreneurs who are workaholics will work excessively and often compulsively without disengagement (Gorgievski et al., 2010, 2014; Ng et al., 2007; Simms et al., 2011; van Beek, Taris, & Schaufeli, 2011; van den Broeck et al., 2011), ignoring self-observations and assessments of performance feedback. As noted earlier, workaholics, in general, have a higher nAch, which has been associated with increased effort (activity) after performance feedback, regardless of

whether the feedback is negative or positive (Stahl, 1986). Our second hypothesis therefore states:

Hypothesis 2. Workaholism will moderate the effects of prior performance feedback (e.g., success or failure) on intentions to reengage in entrepreneurship, such that the relation between feedback and intentions to reengage will become weaker at high levels of workaholism.

3. Methods

We used a hybrid experiment (Hsu, Simmons, & Wieland, 2017) as Study 1¹, where participants were randomly assigned into the experimental groups receiving a video manipulation of venture performance feedback, with sensation-seeking and workaholism measured for all participants with established personality scales. We used undergraduate students as our participant pool for Study 1. There are strengths associated with our use of this participant sample. Undergraduate students are relatively homogeneous in age and have less occupational experience that may contaminate the experimental results (Burmeister-Lamp, Lévesque, & Schade, 2012; Hsu et al., 2017). Thus, the treatment effect should be stronger in the student sample. Therefore, we address the potential limitation on the generalizability of the results (or external validity) associated with the use of a student sample with a survey of 189 real world entrepreneurs in Study 2. The mixed method approach, including a hybrid experiment and a self-reported survey with different samples, enabled us to triangulate the study results and enhance the study reliability and the confidence in our findings.

3.1. Study 1 - sample and procedure

We followed procedures recommended by Shadish, Cook, and Campbell (2002) regarding the development of our experimental design. One hundred sixty-one (161) student volunteers from introductory psychology classes in a university in the mid-Atlantic United States participated in the experiment for course credit. As would be expected for an introductory class, the students came from a variety of educational backgrounds, and were pursuing undergraduate degrees from majors across the university. The experiment was undertaken using an experimental lab associated with the psychology department. Participants were randomly assigned to one of two experimental groups (described below).

Each student first watched a 15-minute video associated with a new venture launch. After the video, the computer screen displayed a newspaper story reporting the after-funding activities of the entrepreneur (success or failure, depending on random assignment), which served as a manipulation of prior venture performance. After reading the newspaper story, participants were asked to imagine that they were the entrepreneur and answered several questions regarding what they would do next for their future career. Specifically, the post-experimental questionnaire was given to all the students to measure the study variables and related controls. The experimental materials were the same across our two groups.

3.2. Study 1 – Video and experimental manipulation

A key to a successful experiment is to engage participants (Grégoire et al., 2019). It has been argued that experimental participants are more engaged when videos are used (Aguinis & Bradley, 2014). Therefore, we used a video presentation and a related newspaper story. We carefully selected a publicly available video excerpt from the television program, *Shark Tank*, about a young entrepreneur who proposed a product and venture called Dream Water, which manufactures and sells a health

¹ IRB Protocol 11,791 titled Entrepreneurship Attitudes was assigned exempt status.

supplement drink that helps people sleep. Since the entrepreneur in the video was a college-age student, we deemed that this case would be easy for our student participants to relate to, since they could readily identify with the entrepreneur and his venture (Greenberg & Eskew, 1993). At the end of the video, the student participants would read a randomly assigned story about Dream Water (either the Dream Water venture was a success or a failure), and then respond to our questionnaire.

After watching the video, each group of participants was asked to read on the computer screen, one of the two versions of the article (e.g., Appendix) about the after-funding activities of the entrepreneur, Vincent Porpiglia. The participants were told that the article was adapted from the actual true account of Dream Water from the *Wall Street Journal*, which was true for one of the versions, but was a deceptive manipulation in the other version. The first version stated that the entrepreneur was very successful with Dream Water and subsequently left the venture with significant capital. This version of the story was given to the students in the financial success/gain group. Specifically, the students in the success group were instructed to “imagine that you were the entrepreneur, Vincent Porpiglia. After leaving Dream Water with the financial gain of \$300,000, how would you answer the questions below?” The other participants, who were in the randomly assigned financial failure/loss condition read the second version of the article, which told them that Vincent left Dream Water with the financial loss of \$300,000. The students in the failure group were specifically told that the entrepreneur lost significant amounts of money and left the venture. The group exposed to the financial success article were coded as “1” with respect to prior venture performance, and the group assigned to the financial failure group were coded as “0,” so that higher numbers indicated more positive performance feedback. The stimulus articles used in the manipulation are available from the authors.

To check whether the participants attended to the information on venture performance correctly (i.e., the manipulation check), we asked a question on the next computer screen after the video and story - “What were you told about Vincent Porpiglia’s personal financial condition after he left Dream Water?” There were three options: “He made \$300,000 as personal earnings,” “He had \$300,000 in personal debt,” and “Neither.”

3.3. Study 1 - measures

As discussed earlier, the independent variable, prior venture performance feedback, was experimentally manipulated and coded as “1” vs. “0.” The two variables, Sensation-Seeking and Workaholism, were measured in the post-experimental questionnaire. Although the relatively stable sensation-seeking and workaholism dispositions can be temporarily heightened by endogenous variables, such as situational cues (Schumpe et al., 2020), we believe that our video manipulation would not have made the participants more or less likely to be sensation-seeking or workaholic.

Sensation-seeking was measured using the Brief Sensation-Seeking Scale (BSSS) which was developed and validated by Hoyle, Stephenson, Palmgreen, Lorch, and Donohew (2002). Participants responded on a five-point Likert scale, anchoring from 1 = “Strongly disagree” to 5 = “Strongly agree.” The brief sensation-seeking scale was defined as a dispositional characteristic associated with factors associated with various behaviors. This eight-item scale includes items, such as “I would like to explore strange places,” “I like new and exciting experiences,” and “I like wild parties.” Cronbach’s alpha = 0.81 was obtained from our experimental Study 1 sample.

Workaholism was measured using the workaholism subscale from the computerized adaptive assessment of personality disorder (CAT-PD), validated by Simms et al. (2011). This scale captures a general dispositional preference towards work as it relates to relationships and other important aspects of a person’s life, with an emphasis on a person’s excessive focus on accomplishment and success. Examples of these items include, “I work so hard that relationships suffer,” and “I notice that I put

work ahead of too many other things.” Participants responded using a five-point Likert scale, anchoring from 1 = “Strongly disagree” to 5 = “Strongly agree.” Cronbach’s alpha for this scale was 0.82 in our Study 1 sample. We treated workaholism as a disposition, which is ascribed to each individual. While most of students do not have a full-time job, they may have a summer job or part-time job. Even if they have not worked at all, their school-learning style may also speak to their workaholism disposition. Past studies have used the same scale to survey undergraduate students (Long, Reinhard, Sellbom, & Anderson, 2021; Thimm, 2020). We believe that our purposeful use of this scale is consistent with the motivation of our study.

The dependent variable, intentions to reengage in entrepreneurship, was measured with six items adapted from Hsu, Shinnar, Powell, and Coffey (2017). Consistent with their usage, we contextualized the items for experimental scenarios that described financial failure and success feedback conditions. Participants were asked to imagine they were the entrepreneur who had gained performance feedback from their venture. Participants were then asked about their intentions to reengage in entrepreneurship. For example, we prompted the respondents in the financial success group that if they were the entrepreneur, “Given my financial gain, I would set up a company in the future.” The word “gain” was replaced with “debt” for the financial failure group. Participants responded on a seven-point Likert scale, anchoring from 1 = “Strongly disagree” to 7 = “Strongly agree.” Cronbach’s alpha for the six-item scale was 0.89.

With all our study alphas higher than 0.80, we were confident in our level of internal scale agreement within our study measures. We also carefully selected control variables, based on the methodologists’ recommendations. Spector and Brannick (2011) argue that the role of variables suitable for use as controls “is assumed to be confounding, that is, producing distortions in observed relationships” (p. 288). Consequently, we included participant gender, coded as “0” = males and “1” = females, and family business background as the two controls for this study, because the work-family interface theory suggests that the two variables are likely to affect individuals’ likelihood of entering or exiting entrepreneurship (cf., Powell & Eddleston, 2013). Family business background was measured with the question “Did anybody in your immediate family previously own a family business?” (0 = “No” and 1 = “Yes”). Prior to our analyses, we standardized our model variables to ensure that we could capture our relationships.

4. Study 1 - results

One-hundred and sixty-one students participated in and finished the lab experiment. Several participants were excluded from analysis due to incomplete answers or the manipulation check. Our final sample consists of one hundred thirty-six (136) students.

For Study 1, we examined whether there were differences in workaholism and sensation-seeking with respect to our primary control variables. Specifically, we compared mean differences in workaholism and sensation-seeking across gender and family business background. Results indicate no significant differences for gender with sensation-seeking ($t = 1.42, n.s.$) and workaholism ($t = -0.66, n.s.$). Likewise, no significant differences were found between family business background with sensation-seeking ($t = 1.39, n.s.$) and workaholism ($t = -0.17, n.s.$).

Before we conducted hierarchical linear regression to test our hypotheses, we examined scale reliability and discriminant validity using Confirmatory Factor Analyses (CFA) with LISREL on all twenty items pertaining to intentions to reengage in entrepreneurship, sensation-seeking, and workaholism. The first-order CFA model, where all items were loaded on a single factor provided a very poor fit (CFI = 0.44, RMSEA = 0.16, $\chi^2 = 789.69, df = 170, p < 0.01$) (Hu & Bentler, 1999; Schreiber, Nora, Stage, Barlow, & King, 2006). We compared this single factor model with an unconstrained three-factor model, whereby items for each of the three scales were loaded on their respective constructs.

We found that there was a significant improvement in fit ($\chi^2 = 303.75$, $df = 167$, $p < 0.01$), with the fit indices for the three-factor model improved (CFI = 0.89, RMSEA = 0.08). To determine whether we were able to demonstrate discriminant validity with our Study 1 measures, we compared the squared correlations of our study variables to their respective average variance explained (AVE). For intentions to reengage in entrepreneurship, sensation-seeking, and workaholism, our AVEs were 0.76, 0.61, and 0.67 respectively, which exceed the highest squared correlation from LISREL's PHI matrix (0.24). We, therefore, conclude that the scales of the three variables are reliable and demonstrate discriminant validity. Descriptive statistics are presented in Table 1.

The results of hierarchical linear regression are presented in Table 2. Model 1 includes the two control variables and prior business performance feedback, which is significant and positive with respect to intentions to reengage in entrepreneurship ($\beta = 0.19$, $p < .05$). This means that prior success experience motivates the individuals to start another venture. This result is consistent with the self-efficacy reasoning proposed by others (Yamakawa, Peng, & Deeds, 2015). Models 2 and 4 examine the direct effects of our primary moderating variables of sensation-seeking and workaholism. As baseline tests, we found significant and positive support for the direct effects of sensation-seeking ($\beta = 0.17$, $p < .05$) and workaholism ($\beta = 0.22$, $p < .01$) on intentions to reengage in entrepreneurship.

To test the moderating effect of sensation seeking on prior business performance feedback (Hypothesis 1), we included the interaction effect of these two variables, as shown in Model 3. We did not find support for the interaction effect of sensation-seeking and prior business performance, although the sign was still positive ($\beta = 0.09$, *n.s.*). Considering the nonsignificant interaction term and the significantly positive coefficient of prior business performance, we conclude that the positive effect of prior business performance on intentions to reengage in entrepreneurship does not differ for students' sensation-seeking levels. We surmise that this may be attributed to the characteristics of the student sample. Thus, the less heightened sensation-seeking may not alter the relationship between prior performance and intention to engage much. To confirm our conjecture, we conducted Study 2 with a population of experienced entrepreneurs.

The interaction term of workaholism and prior business performance feedback was entered in Model 5 and evaluated based upon 1 SD above and below the mean. The coefficient was significant ($\beta = -0.16$, $p < .05$), supporting Hypothesis 2. To better illustrate the nature of this relationship, we conducted simple slope tests and plotted the findings in Fig. 1. Regarding slope, at higher levels of the moderator (workaholism), there was no difference in slope for the relationship between prior performance feedback and intentions to reengage in entrepreneurship (t

$= 0.34$, $p = n.s.$). However, at lower levels of workaholism, there is a significant and positive effect on intentions to reengage in entrepreneurship ($t = 3.20$, $p < .05$). In other words, for those participants who scored lower on the workaholism scale, their intention to reengage in entrepreneurship was stronger when the performance feedback was positive (i.e., success) and weaker when the performance feedback was negative (i.e., failure). On the other hand, regardless of whether the performance feedback was success or failure, our results show that participants with higher workaholism scores have higher intentions to reengage in entrepreneurship.

4.1. Study 2 - sample and procedures

Study 2 is a survey using a panel of 3,304 persons who have owned a small business within the United States, using the Qualtrics panel of small business owners. Our use of the Qualtrics panel was primarily driven by the need to identify a broad and representative sample of small business owners with prior business ownership (Peterson & Merunka, 2014). The use of online panels has been generally accepted in highly ranked journals (e.g., Yam, Christian, Wei, Liao, & Nai, 2018), including entrepreneurship journals (e.g., Michaelis, Carr, Schaeff, & Pollack, 2020). We used two screening questions: "Have you, alone or with others, previously started a new business?" and "Have you previously sold, shut down or discontinued a business you owned or managed?" As part of the screening process, those respondents who met the screening criteria also had to provide information on whether their previous business exit was successful or unsuccessful and indicate the level of success or failure associated with their prior business exit. A total sample of 189 respondents successfully met our criteria as "entrepreneurs who had shut down or discontinued a prior business."

Comparison checks indicate that our sample reflects a range of entrepreneurs from 42 states across the United States, who had both successful and unsuccessful prior business exits. Our sample also included business owners in a variety of industries, with the most common industries being personal or consumer services (29.1 %), retail and restaurant establishments (21.7 %), and business services (14.8 %). Demographically, the sample consisting of 44.4 % males and 55.6 % females, were generally well-educated (more than 60 % of the sample had a college degree) and averaged 6.81 years of prior entrepreneurial experience. The means, standard deviations, and bivariate correlations for all our Study 2 variables, prior to standardizing, are shown in Table 3.

4.2. Study 2 - measures

The measures for intentions to reengage in entrepreneurship, sensation-seeking, and workaholism used for Study 2 replicated those used in Study 1. The Cronbach alphas for these three measures were 0.91, 0.85, and 0.91 respectively. For prior performance, we used a set of six options. The entrepreneurs were asked "How would you best describe the performance of the most recent business that you sold, shut down, or discontinued?" These response options ranged from losses that exceeded what they could earn in 1–5 years, 5–10 years, or greater than 10 years in a stable job, to gains that exceed what they could earn in a stable job for the same categories. A sample statement from the gain choice options is "You had financial gains, which exceed what you could earn if you were to work in a stable job for 1–5 years." The entrepreneurs were required to choose one of the six options (either a gain or loss, and the degree to which it was a gain or loss). Based upon the choice selected, a total of 53.9 % of the entrepreneurs had gains, with 46.1 % of the entrepreneurs experiencing a loss in their prior business. Within each gain/loss category, the highest percentage of entrepreneurs had minor gains (31.7 %) or minor losses (43.9 %). The prior financial performance variable was recoded to range from large losses (1) to large gains (6).

We included seven control variables in our analyses. Following

Table 1
Study 1: Means, Standard Deviations, and Correlations.

| | Mean | S.D. | 1 | 2 | 3 | 4 | 5 |
|--|-------|------|-------|--------|------|--------|------|
| 1. Gender ¹ | 0.33 | 0.47 | | | | | |
| 2. Family Business Background ² | 0.40 | 0.49 | −0.21 | | | | |
| 3. Prior Performance Feedback ³ | 0.57 | 0.50 | 0.07 | −0.04 | | | |
| 4. Sensation-seeking | 28.52 | 5.87 | −0.12 | 0.12 | 0.06 | | |
| 5. Workaholism | 17.47 | 4.09 | 0.06 | 0.02 | 0.01 | 0.05 | |
| 6. Intention to Reengage | 26.00 | 7.94 | −0.20 | 0.25** | 0.17 | 0.22** | 0.21 |

N = 136.

* Correlation is significant at the 0.05 level (2-tailed).

** At the 0.01 level (2-tailed).

¹ Gender: 1 = females.

² Family Business Background: 1 = yes.

³ Prior Performance: 1 = financial success.

Table 2
Study 1: OLS Models of Performance Feedback, Sensation-seeking, and Workaholism on Intention to Reengage.

| Dependent variable | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | |
|---|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| | B | t | B | t | B | t | B | t | B | t |
| (Intercept) | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 | -0.07 | 0.00 | 0.00 | 0.00 | 0.02 |
| Gender ¹ | -0.17 | -2.01* | -0.15 | -1.81 | -0.16 | -1.88 | -0.18 | -2.23* | -0.18 | -2.27* |
| Family Business Background ² | 0.22 | 2.61* | 0.20 | 2.43* | 0.19 | 2.33* | 0.21 | 2.60* | 0.21 | 2.61* |
| Prior Performance Feedback ³ | 0.19 | 2.27* | 0.17 | 2.14* | 0.18 | 2.16* | 0.19 | 2.32* | 0.19 | 2.34* |
| Sensation-seeking | | | 0.17 | 2.06* | 0.17 | 2.08* | | | | |
| Workaholism | | | | | | | 0.22 | 2.75** | 0.18 | 2.23* |
| Sensation-seeking × Prior Perf. | | | | | 0.09 | 1.11 | | | | |
| Workaholism × Prior Perf. | | | | | | | | | -0.16 | -2.00* |
| Adj. R ² | | 0.10** | | 0.12** | | 0.12** | | 0.14** | | 0.16** |
| R ² change | | | | 0.03* | | 0.01 | | 0.05** | | 0.03* |

N = 136; Unstandardized coefficients are reported.

* Significant at the 0.05 level (2-tailed).

** At the 0.01 level (2-tailed).

¹ Gender: 1 = females.

² Family Business Background: 1 = yes.

³ Prior Business performance: 1 = financial success.

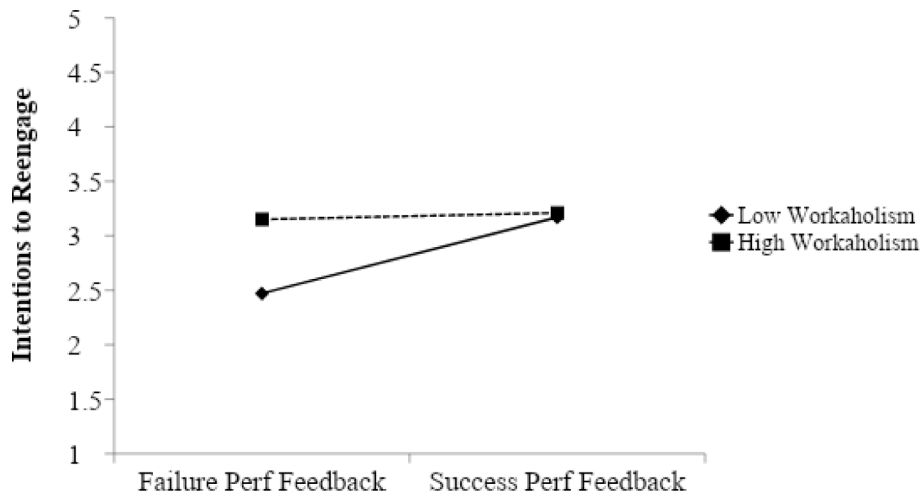


Fig. 1. Study 1: Interaction effects of prior performance feedback and workaholism on intentions to reengage in entrepreneurship.

Table 3
Study 2: Means, Standard Deviations, and Correlations.

| | Mean | S.D. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--|-------|-------|---------|---------|-------|--------|-------|---------|-------|--------|--------|--------|----|
| 1. Gender ¹ | 0.56 | 0.50 | | | | | | | | | | | |
| 2. Age | 2.94 | 1.43 | 0.05 | | | | | | | | | | |
| 3. Education Level | 2.37 | 1.27 | -0.07 | 0.11 | | | | | | | | | |
| 4. Family Business | 1.71 | 0.45 | 0.00 | 0.25** | -0.06 | | | | | | | | |
| 5. Startup Experience | 6.81 | 7.60 | -0.09 | 0.35** | 0.16* | -0.05 | | | | | | | |
| 6. Manufacturing Industry Control ² | 0.07 | 0.25 | -0.01 | 0.01 | -0.05 | 0.03 | -0.04 | | | | | | |
| 7. Service Industry Control ² | 0.48 | 0.50 | -0.14 | 0.01 | 0.02 | -0.12 | 0.04 | -0.26** | | | | | |
| 8. Prior Performance Feedback | 3.81 | 1.06 | -0.12 | -0.17* | -0.04 | -0.11 | 0.16* | -0.09 | 0.06 | | | | |
| 9. Sensation-seeking | 33.65 | 10.88 | -0.23** | -0.43** | -0.11 | -0.14 | -0.13 | -0.01 | 0.06 | 0.13 | | | |
| 10. Workaholism | 25.88 | 9.43 | -0.16* | -0.33** | -0.10 | -0.12 | 0.13 | -0.03 | -0.03 | 0.22** | 0.48** | | |
| 11. Intention to Reengage in Ent. | 29.52 | 10.39 | -0.09 | -0.28** | -0.08 | -0.23* | 0.05 | -0.01 | 0.04 | 0.17* | 0.34** | 0.45** | |

N = 189.

* Correlation is significant at the 0.05 level (2-tailed).

** At the 0.01 level (2-tailed).

¹ Gender: 1 = females.

² Industry Controls 1 = part of that industry group.

Spector and Brannick (2011), we included the variables that could potentially confound the relationship between the predictors and the outcome variable. As shown in previous research, these include gender (Justo, DeTienne, & Sieger, 2015), age (Parker, 2006), education, entrepreneurial experience (Cassar, 2014; Hsu et al., 2017), and

industry (Cassar, 2014). We used categorical variables for gender (coded “1” for female, “0” for male), age (coded in ranges from 20–29 to 60 and older), educational level (“High school” to “Doctorate”, and “Other”), and whether the entrepreneur considered their venture as a family business (“1” for Yes, “2” for No). We included the number of years of

experience as an entrepreneur, since an entrepreneur’s prior entrepreneurial experience reflects their ability to understand and incorporate prior successes or failures over the life of that experience. Finally, we used industry controls to ensure that industry effects were taken into account. Similar to Study 1, we standardized our model variables prior to analyses.

4.3. Study 2 - results

Similar to Study 1, we conducted mean comparisons of our primary study variables across our Study 2 control variables, to determine whether their inclusion was warranted. This proved to be an important effort, since we found significant differences in three of our control variables, thereby providing further evidence that their inclusion in our analyses was important and necessary. Specifically, we found that workaholism varied across levels of age, education, and family business background. For age, younger entrepreneurs were more likely than older entrepreneurs to have higher workaholism and sensation-seeking. The primary difference for education was between each of the education categories and “Other.” Finally, for the family business control, those entrepreneurs that viewed their ventures as a “family business” had lower levels of workaholism and sensation-seeking. Thus, there was a strong justification to include these and the other control variables within our analyses, to control for such effects.

Likewise, we conducted a confirmatory factor analysis and an assessment of discriminant validity on our primary study variables. Specifically, we examine a three-factor model, whereby intentions to reengage in entrepreneurship, sensation-seeking, and workaholism items were loaded on their respective latent constructs, as compared to a single-factor model, where all the items were loaded on a single factor. We found similar fit advantages to the three-factor model, although our fit was not ideal given typical rules-of-thumb. Specifically, we obtained a CFA of CFA ($\chi^2 = 521.95, df = 167, p < 0.01$); (CFI = 0.86; RMSEA = 0.10). Finally, we also found support for discriminant validity with our measures. Specifically, our average variance explained was acceptable for all of our study variables, with intentions to reengage (0.81), sensation-seeking (0.70), and workaholism (0.82) all exceeded the correlations between measures. Prior to hypothesis testing, study variables were standardized, following recommendations by Aiken, West, & Reno, 1991).

The results of Study 2 are consistent with Study 1, and to some degree more supportive of the hypotheses. They are presented in Table 4.

Table 4

Study 2: OLS Models of Performance Feedback, Sensation-seeking, and Workaholism on Intention to Reengage.

| Dependent variable | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | |
|---|---------|---------|---------|--------|---------|--------|---------|--------|---------|--------|
| | B | t | B | t | B | t | B | t | B | t |
| (Intercept) | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.27 | 0.00 | 0.00 | 0.04 | 0.56 |
| Gender ¹ | -0.05 | -0.75 | -0.00 | -0.05 | 0.01 | 0.10 | -0.01 | -0.08 | 0.00 | -0.00 |
| Age | -0.26 | -3.25** | -0.16 | -1.93 | -0.16 | -1.89 | -0.12 | -1.46 | -0.09 | -1.09 |
| Education Level | -0.08 | -1.13 | -0.06 | -0.84 | -0.04 | -0.57 | -0.04 | -0.59 | -0.01 | -0.17 |
| Family Business | -0.16 | -2.13* | -0.15 | -2.03* | -0.15 | -2.08* | -0.15 | -2.18* | -0.14 | -2.00* |
| Startup Experience | 0.13 | 1.68 | 0.13 | 1.74 | 0.11 | 1.49 | 0.03 | 0.46 | 0.01 | 0.11 |
| Manufacturing Industry Control ² | 0.02 | 0.26 | 0.02 | 0.25 | 0.02 | 0.25 | 0.03 | 0.43 | 0.03 | 0.42 |
| Service Industry Control ² | 0.02 | 0.22 | 0.01 | 0.11 | 0.04 | 0.49 | 0.04 | 0.59 | 0.06 | 0.91 |
| Prior Performance Feedback | 0.08 | 1.08 | 0.07 | 1.01 | 0.11 | 1.49 | 0.04 | 0.60 | 0.09 | 1.26 |
| Sensation-seeking | | | 0.25 | 3.19** | 0.23 | 3.00** | | | | |
| Workaholism | | | | | | | 0.38 | 5.23** | 0.36 | 5.01** |
| Sensation-seeking × Prior Perf. | | | | | -0.14 | -2.04* | | | | |
| Workaholism × Prior Perf. | | | | | | | | | -0.16 | -2.10* |
| Adj. R ² | | 0.10** | | 0.14** | | 0.16** | | 0.22** | | 0.23** |
| R ² change | | | | 0.05** | | 0.02* | | 0.11** | | 0.02* |

N = 189; Unstandardized coefficients are reported. Correlation is significant at the 0.10 level (2-tailed).

* At the 0.05 level (2-tailed).

** At the 0.01 level (2-tailed).

¹ Gender: 1 = females.

² Industry Controls: 1 = part of that industry group.

As shown in Models 2 and 4 in Table 4, both main effects of sensation-seeking ($\beta = 0.25, p < .01$) and workaholism ($\beta = 0.38, p < .01$) were significant. Models 3 and 5 provide our tests of our hypotheses. When our study variables are included with their interactions with prior performance feedback, we find support for our interaction hypotheses. Specifically, the interaction of sensation-seeking and prior performance feedback is significant ($\beta = -.14, p < .05$), as well as the interaction term of workaholism and prior performance ($\beta = -0.16, p < .05$). Hypotheses 1 and 2 thus also receive support. The results lend support for our overall theoretical framework and further support results found in Study 1.

Similar to our approach in Study 1, we graphed both of the significant interactions of sensation-seeking and workaholism with prior performance feedback on intentions to reengage in entrepreneurship and conduct simple slope analyses at 1 SD above and below the mean (See Fig. 2 and Fig. 3). Study 2 results indicate that regardless of prior failure or success performance feedback, the interaction of performance feedback with higher levels of sensation-seeking and workaholism leads to higher intentions to reengage. Again, consistent with our Study 1 results, when examining the simple slopes at higher-levels of sensation-seeking ($t = -0.34, p = n.s.$), there was no significant effect (slope) of prior performance feedback on intentions to reengage in entrepreneurship. However, at lower levels of sensation-seeking ($t = 2.28, p = < 0.05$) there was a significant effect of feedback. The simple slope analyses also show that at higher levels of workaholism the slope is negative but not significant ($t = -0.84, p = n.s.$). However, for lower levels of workaholism, there was a significant effect ($t = 2.04, p = < .05$).

A key set of conclusions from our two studies is that the interactive effects of sensation-seeking, workaholism, and prior performance feedback do, to some degree, influence the intentions to reengage in entrepreneurship. However, it is important to note that though our Study 2 respondents were prior business owners, they may or may not also currently operate an existing business. Therefore, we believed that an additional post-hoc study was necessary to isolate our findings and focus on prior business owners who had sold/shut down their prior business, and were not currently owners at this point in time. In this way, our respondents were not currently entrepreneurs, and thus could respond about intentions to reengage in entrepreneurship in the future. A brief summary of this post-hoc study is provided below.

4.4. Study 3 – Post-hoc Sample, Procedures, and measures

Similar to our Study 2, our interests were to capture a wide sample of

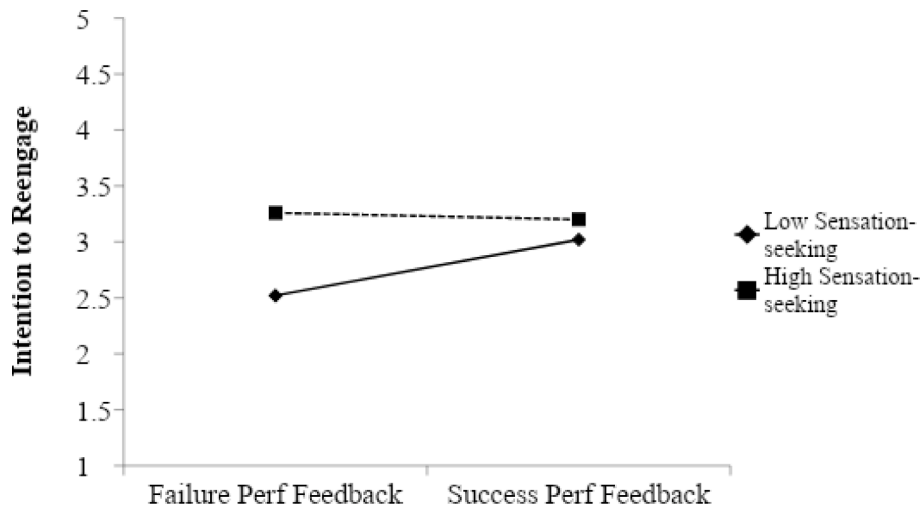


Fig. 2. Study 2: Interaction effects of prior performance feedback and sensation-seeking on intentions to reengage in entrepreneurship.

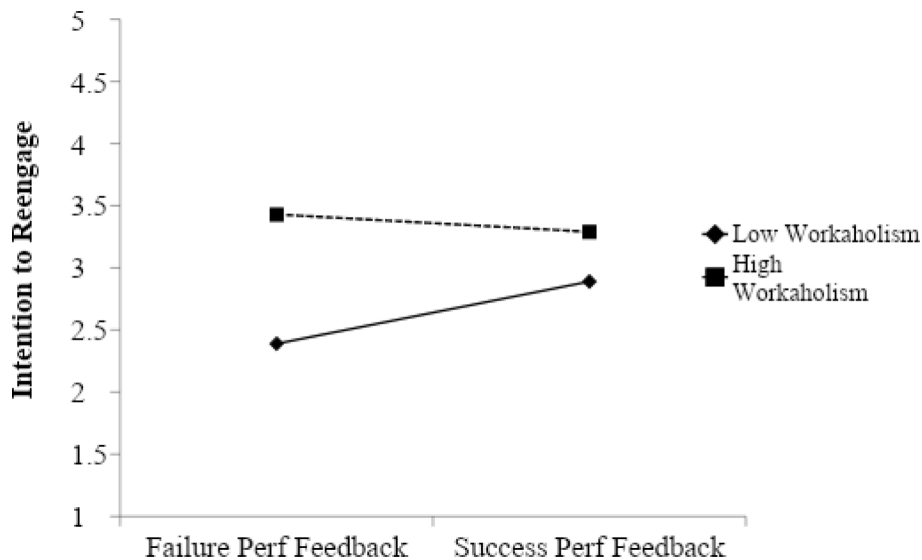


Fig. 3. Study 2: Interaction effects of prior performance feedback and workaholism on intentions to reengage in entrepreneurship.

prior business owners, but in this case with a key set of sample filters. These sample filters include prior business ownership; whether the business had been shut down/sold; and whether the respondent did not currently own a business that was their prior income source. Using an online panel, we conducted a screening sample of 1,000 possible respondents who could potentially meet our sample filter criteria. Based upon our filters, we obtained a sample of 340 respondents who met our criteria.

For the purposes of our Study 3 post-hoc analyses, we used the same sample variables, controls, and dependent variable as Study 2. Similar to Study 2, we obtained acceptable Cronbach alphas for intentions to reengage in entrepreneurship, sensation-seeking, and workaholism of 0.91, 0.80, and 0.90 respectively. We conducted a CFA on our three measured constructs, which indicated a reasonable, though not ideal fit (CFA = $\chi^2 = 521.95, df = 167, p < 0.01$; CFI = 0.86; RMSEA = 0.10). Finally, our obtained means, standard deviations, and bivariate correlations were similar in size and significance as Study 2.

4.5. Study 3 – Post-hoc results

The pattern of results found were similar to what we obtained from Study. We continue to find that the main effects of sensation seeking (β

= 0.12, $p < .05$) and workaholism ($\beta = 0.31, p < .01$) on subsequent intentions to reengage in entrepreneurship are significant. These support our hypothesized relationships with respect to these variables. When we examine the interaction effects of prior financial feedback on these variables, we find similar results. For sensation-seeking and prior feedback, we find supportive marginal significance for the interaction ($\beta = -0.11, p < .10$). Consistent with findings from both Study 1 and Study 2, we find significant results with respect to workaholism and prior feedback ($\beta = -0.10, p < .05$). In both instances, the nature of the relationship between prior financial feedback and our study variables reflects prior findings as well, in particular with respect to workaholism. Using simple slope tests, we find that there are no significant effects at higher levels of sensation-seeking ($t = -0.32, p = n.s.$) and workaholism ($t = 0.00, p = n.s.$). Conversely, we do find significant effects at lower levels of sensation-seeking ($t = 2.24, p = <0.05$) and workaholism ($t = 3.16, p = <0.05$). Overall, these post-hoc analyses provide a further refinement and test of our hypothesized relationships with a sample of former entrepreneurs who are not currently operating a business as their sole source of income. These additional results provide an additional opportunity to address our core research questions for the overall study.

5. Discussion

For years, scholars have applied cognitive theories, such as self-efficacy (Chen, Croson, Elfenbein, & Posen, 2018; Chen, Greene, & Crick, 1998), attribution (Yamakawa et al., 2015), and self-regulation (Simmons et al., 2016), to better understand the decision to persist in entrepreneurship activity following success and failure feedback. Although these prior studies generally reiterate the positive benefits of performance feedback on entrepreneurial learning (Politis, 2008; Rocha, Carneiro, & Varum, 2015) and productivity (Parker, 2013; Shaw & Sørensen, 2019), the findings are mixed with regard to whether there is a positive, negative or insignificant relationship between success and failure feedback and intentions to reengage in entrepreneurship (Acheampong & Tweneboah-Koduah, 2018; Baü, Sieger, Eddleston, & Chirico, 2017; Carroll & Mosakowski, 1987; Stam & Schutjens, 2006). This debate of whether prior success or failure feedback motivates individuals to reengage in entrepreneurship is partly resolved by our findings.

6. Theoretical implications

As a theoretical implication, our findings nuance the assumption that performance feedback interacts with cognitive dispositions to shape serial entrepreneurship intention (Hsu et al., 2017; Simmons et al., 2016). Prior to our study, the question of why some entrepreneurs reengage in entrepreneurship following success or failure feedback while others do not (Westhead & Wright, 1998) has not been tested empirically from sensation-seeking and workaholism perspectives. This is, however, an important question to ask because we know from prior studies that entrepreneurs have high dispositions of sensation-seeking and workaholism (Brandstätter, 2011; Nicolaou et al., 2008; Patel & Thatcher, 2014; Spivak et al., 2014). We also know from prior studies that sensation-seeking and workaholism can motivate entrepreneurs to engage in activities that they view as novel for the sake of the experience, without regard to performance feedback (Shimazu et al., 2015; Zuckerman, 1994).

We conclude from the findings of the three studies that workaholism and sensation-seeking moderate the relationship between performance feedback and reengagement, such that reengagement intention is high at high levels of these variables, regardless of the performance feedback. In particular, we find that the workaholic and sensation seeking entrepreneurs reengaged despite financial loss. However, the moderation effects were found for workaholism but not sensation-seeking in the student sample. Collectively, these findings provide a fresh psychological perspective on why some entrepreneurs quit and others persist following success and failure feedback (Hayward et al., 2010; Monsen & Urbig, 2009; Patel & Thatcher, 2014). The findings also suggest that workaholic entrepreneurs, similar to workaholic employees, may neglect feedback and persist in an addictive pattern of excessive work (Porter, 1996; van den Broeck et al., 2011).

Finally, the findings contribute to the broad sensation-seeking literature. In many of the sensation-seeking studies, the focus is on activities, such as sex, drugs and gambling that are illicit and impulsive in nature (Hamdan-Mansour et al., 2018; Kalichman et al., 1996; Reardon et al., 2019). The study findings demonstrate that even in the context of the systems and routines of the entrepreneurial process (Haynie et al., 2012), sensation-seeking, and workaholic entrepreneurs have a higher likelihood of reengagement in entrepreneurship compared to their counterparts receiving the same success or failure feedback.

Overall, our findings provide new insights into the view that there are unexplored psychological factors (Shir, Nikolaev, & Wincent, 2018; Wiklund et al., 2016) that influence the decision to reengage in entrepreneurship. While prior studies have been effective at explaining the relationship between the attributes of entrepreneurs and the consequences of entrepreneurial decision making, our findings add to these studies by showing that the psychological factors of sensation-seeking

and workaholism affect the relationship between performance feedback and reengagement in entrepreneurship.

7. Practical and policy implications

There are practical and policy implications associated with our study. Most importantly, our research suggests that serial entrepreneurs, as a practical matter, may not (or more intriguingly cannot) take into account their own individual sensation-seeking or workaholic tendencies as they relate to reengagement. The “thrill” of the startup process, or the obsessive need to “work at all costs” could have long-term psychological and physical implications for such entrepreneurs (Torrès & Thurik, 2018). Accordingly, similar to studies in the employee context, it is important to distinguish between enthusiastic (productive passion) and non-enthusiastic (destructive compulsions) start-up behaviors when advising entrepreneurs (Andreassen, Hetland, & Pallesen, 2010; Cardon, Wincent, Singh, & Drnovsek, 2009).

Additionally, previous research argues that entrepreneurs with high levels of sensation-seeking or workaholism may have bad performance. For example, Gorgievski, Moriano, and Bakker (2014) find that workaholic entrepreneurs have stronger negative affect, which negatively affect business performance. Reio and Sanders-Reio (2006) show that sensation-seeking negatively affects job performance because it makes the individual difficult to adapt to the workplace. Interestingly, research also suggests that individuals with these dispositions are more likely to become entrepreneurs (Nicolaou et al., 2008; Spivak et al., 2014). Consequently, it seems that an individual with these dispositions is innate to start a business, either as a first-time entrepreneur or a serial entrepreneur, but the nature of these dispositions also inhibit the individual's performance for the business.

The insight above partly contributes to the high failure rate of new ventures (Shane, 2008). Some entrepreneurs are psychologically compelled to start a business, but they may not have the appropriate skill sets to succeed. This is an important dilemma for policy makers to address as our society benefits not only from more entrepreneurs but also from more new ventures that are successful. One way for policy makers to tackle this issue is to design a training program that teaches prospective entrepreneurs to counterbalance their psychological impulse and make them aware that their decision to start or restart a business should be made based on objective evaluations of the business opportunity rather than their innate desire.

8. Study limitations and future research

We discussed earlier that the nature of the experiments in Study 1 did not enable us to capture the continuous nature of positive performance (i.e., treating it as a continuous variable rather than dichotomous or categorical). The lack of support in Study 1 may be attributable to this method's limitations. In our experiment, the manipulated variable, business performance feedback, is financial success or financial failure. The standard deviation for sensation-seeking in the student sample was only half that of the panel sample, so effects of sensation-seeking in the student sample could have been attenuated by this range restriction. This method limitation is addressed by employing Studies 2 and 3, the self-reported surveys. While each method has its own limitations, the consistency of the results derived from the different methods should provide confidence in the interpretation of our findings. Our use of experienced entrepreneurs for our second and third studies were important to ground the general impressions of prior performance and intentions to reengage.

Additionally, to our knowledge, it is not feasible or ethical to manipulate dispositional variables in an experiment. Therefore, causal inference between sensation-seeking, workaholism, and entrepreneurship intention cannot be claimed in any study in a strict sense, since alternative explanations are always likely in non-randomized experiments or correlational studies. Future studies may consider examining

the reengagement decision-making of entrepreneurs under multiple gain or loss scenarios or using samples of habitual entrepreneurs with multiple business failures. Future experimental studies that wish to extend this line of research should consider the stability of dispositional variables as part of their research design. It could be that under some extreme performance feedback circumstances, entrepreneurs may adjust such dispositions in some way.

An intriguing future question is the role of repeated prior entrepreneurial success and its relationship with the decision to reengage, sensation-seeking, and workaholism characteristics. Prior research would suggest that higher performance outcomes can be realized when individual characteristics are aligned (or fit) with situational contexts, as seen in work around regulatory fit (Avnet & Higgins, 2006). An intriguing opportunity would be to experimentally manipulate repeated performance success with existing compulsion-related traits and thereby gauge how fit leads to higher levels of reengagement in entrepreneurship.

This current research focused on sensation-seeking and workaholism dispositions that were found to be less malleable to success and failure feedback when it comes to intentions to reengage in entrepreneurship. Future research could reexamine other individual dispositions that have been previously studied (such as self-efficacy) to better understand their malleability to extreme feedback contexts. For instance, prior success experience has been shown to increase reengagement intentions (Yamakawa et al., 2015). However, a potential research inquiry is whether this relationship weakens or becomes insignificant at extreme levels of success feedback.

Future studies should also continue to examine the relationships between sensation-seeking, workaholism and performance using longitudinal or repeated measure studies of the same sample. Further, workplace-specific constructs may be difficult to measure in populations with limited work experience, and this may be considered a limitation of the student sample in the current research. The Workaholism measure in our study, however, did relate to other variables as expected in both the student and entrepreneur samples. As discussed earlier, studies of sensation-seeking and workaholism in the entrepreneurship literature are novel and are at an early stage.

9. Conclusion

Entrepreneurs have different motivations and triggering mechanisms for engagement in entrepreneurship (Jaskiewicz, Combs, Ketchen, &

Appendix

Study 1: Newspaper Article about the Entrepreneur of Dream Water for the Group of Financial Success (Scenario A)
October 7, 2013, 10:22am EDT.

Drugstore cowboys



Ireland, 2016; Wright, Robbie, & Ennew, 1997). This is true for entrepreneurs who are new to venture startup, as well as for those who have experienced new venture startups multiple times. Not surprisingly, prior new venture failure and success can have a powerful effect on whether a person wishes to reengage again. What is important to remember is that a person's own personality and dispositional orientation is also part of this reengagement decision. Their own individual orientation can profoundly affect how they react to new venture success or failure, and what they do going forward. In the current study, we examined the direct relationship between performance feedback and intentions to reengage in entrepreneurship, as well as the moderating effects of sensation-seeking and workaholism. The new venture startup process is an uncertain activity with many lessons. Our study highlights that individual dispositions can significantly influence whether success or failure feedback in those lessons is perceived and the degree to which this feedback influences the intention to engage in venture startup again. Sensation-seeking and workaholism are two dispositions that an entrepreneur brings "to the table."

CRedit authorship contribution statement

Sharon A. Simmons: Project administration, Conceptualization, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Jon C. Carr:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Validation, Writing – original draft, Writing – review & editing. **Dan Hsu:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing. **S. Bartholomew Craig:** Writing – original draft, Writing – review & editing, Data curation, Investigation, Validation, Formal Analysis, Methodology

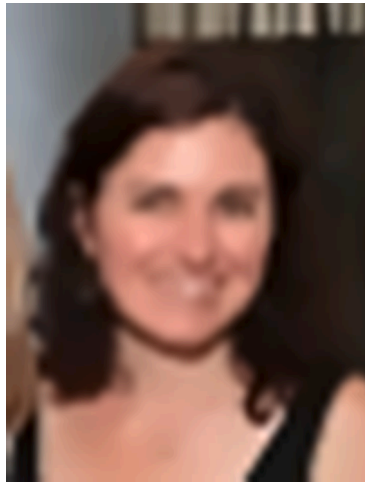
Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

David Lekach, left, and Vincent Porpiglia invented a new product category when they cofounded Dream Water, a liquid sleep aid sold in small bottles at drugstores, grocery stores, big-box stores, and airports.



Teresa Novellino

Upstart Business Journal Entrepreneurs & Enterprises Editor

A 2009 British poll revealed 80 percent of Britons preferred a good night's sleep to a night of passion. Their hopes were answered later that year when Dream Water—a sleep aid that debuted in New York drugstores—was conceived.

In the spring of 2009, Vincent Porpiglia took the all-natural sleep potion he'd been formulating since college and went to New York City seeking business partners and investors. "New York was a complicated market in general, and our thought was 'Let's put the city that never sleeps,'" Porpiglia says.

He quit his job and put his money into starting Dream Water—only to have his wife announce she was pregnant. Luckily, Dream Water took in seven-figure range revenues in its first fiscal year in 2010 and tripled those sales the next year. In the first quarter of 2012, they outsold all of 2011. "And we were profitable [in 2011], which was wild," Porpiglia says. But that's not to say the selling of a liquid sleep aid in a bottle has been easy. Dream Water launched in New York's ubiquitous drugstore chain Duane Reade in December 2009. The young entrepreneur had spent about five months revising the formula. Porpiglia recall "I was so stressed that I needed to work restlessly days and nights. I drank four or five bottles per week to help me sleep."

Dream Products sold between 10 million and 15 million bottles and continues to tap in to a market of some 70 million Americans craving a good night's sleep. Because it grew so fast, Porpiglia's initial money and the money raised from the SharkTank investors and the bank loans ran out early this year. Fortunately, a group of high-net-worth individuals and financial institutions are willing to invest in the company and scale it up at a rate that makes sense to all shareholders. However, these deals also largely dilute Porpiglia's equity ownership.

Considering the potential risk of being marginalized, Vincent Porpiglia decided to take this opportunity to sell all his shares to these investors and leave Dream Water. **This decision brought the financial earnings of \$300,000 to Vincent Porpiglia at age 28.** He resigned last week to pursue other career options. As to Dream Water, "I still want it to be successful," Porpiglia said. "Hopefully it will be able to keep growing."

References

- Acheampong, G., & Tweneboah-Koduah, E. Y. (2018). Does past failure inhibit future entrepreneurial intent? Evidence from Ghana. *Journal of Small Business and Enterprise Development*, 25(5), 849–863.
- Aguinis, H., & Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational Research Methods*, 17(4), 351–371.
- Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.
- Alstete, J. (2008). Aspects of entrepreneurial success. *Journal of Small Business and Enterprise Development*, 15(3), 584–594.
- Andreassen, C. S., Griffiths, M. D., Sinha, R., Hetland, J., & Pallesen, S. (2016). The relationships between workaholism and symptoms of psychiatric disorders: A large-scale cross-sectional study. *PLoS one*, 11(5), e0152978.
- Andreassen, C. S., Hetland, J., & Pallesen, S. (2010). The relationship between 'workaholism', basic needs satisfaction at work and personality. *European Journal of Personality: Published for the European Association of Personality Psychology*, 24(1), 3–17.
- Artinger, S., & Powell, T. C. (2015). Entrepreneurial Failure: Statistical and Psychological Explanations. *Strategic Management Journal*, 37(6), 1047–1064.
- Avnet, T., & Higgins, E. T. (2006). How regulatory fit affects value in consumer choices and opinions. *Journal of Marketing Research*, 43, 1–19.
- Aziz, S., & Zickar, M. J. (2006). A cluster analysis investigation of workaholism as a syndrome. *Journal of Occupational Health Psychology*, 11(1), 52–62.
- Bakker, A. B., & van Wingerden, J. (2021). Do personal resources and strengths use increase work engagement? The effects of a training intervention. *Journal of Occupational Health Psychology*, 26(1), 20–30.
- Barlow, M., Woodman, T., & Hardy, L. (2013). Great expectations: Different high-risk activities satisfy different motives. *Personality Processes and Individual Differences*, 105(3), 458–475.
- Baù, M., Sieger, P., Eddleston, K. A., & Chirico, F. (2017). Fail but try again? The effects of age, gender, and multiple-owner experience on failed entrepreneurs' reentry. *Entrepreneurship Theory and Practice*, 41(6), 909–941.
- Brandstätter, H. (2011). Personality aspects of entrepreneurship: A look at five meta-analyses. *Personality and Individual Differences*, 51(3), 222–230.
- Burke, R. J. (2000). Workaholism in organizations: Concepts, results and future research directions. *International Journal of Management Reviews*, 2(1), 1–16.
- Burmeister-Lamp, K., Lévesque, M., & Schade, C. (2012). Are entrepreneurs influenced by risk attitude, regulatory focus or both? An experiment on entrepreneurs' time allocation. *Journal of Business Venturing*, 27(4), 456–476.
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511–532.
- Carroll, G. R., & Mosakowski, E. (1987). The career dynamics of self-employment. *Administrative Science Quarterly*, 32, 570–589.
- Cassar, G. (2014). Industry and startup experience on entrepreneur forecast performance in new firms. *Journal of Business Venturing*, 29(1), 137–151.
- Chen, J. S., Croson, D. C., Elfenbein, D. W., & Posen, H. E. (2018). The impact of learning and overconfidence on entrepreneurial entry and exit. *Organization Science*, 29(6), 989–1009.

- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4), 295–316.
- Cherrington, D. J. (1980). *The Work Ethic*. New York: American Management Association.
- Clark, M. A., Michel, J. S., Zhdanova, L., Pui, S. Y., & Baltes, B. B. (2016). All work and no play? A meta-analytic examination of the correlates and outcomes of workaholism. *Journal of Management*, 42(7), 1836–1873.
- Cope, J. (2011). Entrepreneurial learning from failure: An interpretative phenomenological analysis. *Journal of Business Venturing*, 26(6), 604.
- Falvo, R., Visintin, E. P., Capozza, D., Falco, A., & De Carlo, A. (2013). The relationships among workaholism, proactivity, and locomotion in a work setting. *Social Behavior and Personality: An International Journal*, 41(9), 1557–1569.
- Gancarz, A. M., Robble, M. A., Kausch, M. A., Lloyd, D. R., & Richards, J. B. (2012). Association between locomotor response to novelty and light reinforcement: Sensory reinforcement as a rodent model of sensation seeking. *Behavioural Brain Research*, 230(2), 380–388.
- Gartner, W. B. (1988). “Who is an entrepreneur?” is the wrong question. *American Journal of Small Business*, 12(4), 11–32.
- Gompers, P., Kovner, A., Lerner, J., & Scharfstein, D. (2010). Performance persistence in entrepreneurship. *Journal of Financial Economics*, 96(1), 18–32.
- Gorgievski, M. J., Bakker, A. B., & Schaufeli, W. B. (2010). Work engagement and workaholism: Comparing the self-employed and salaried employees. *The Journal of Positive Psychology*, 5(1), 83–96.
- Gorgievski, M. J., Moriano, J. A., & Bakker, A. B. (2014). Relating work engagement and workaholism to entrepreneurial performance. *Journal of Managerial Psychology*, 29(2), 106–121.
- Greenberg, J., & Eskew, D. E. (1993). The role of role playing in organizational research. *Journal of Management*, 19(2), 221–241.
- Grégoire, D. A., Binder, J. K., & Rauch, A. (2019). Navigating the validity tradeoffs of entrepreneurship research experiments: A systematic review and best-practice suggestions. *Journal of Business Venturing*, 34(2), 284–310.
- Grimes, M. G. (2018). The pivot: How founders respond to feedback through idea and identity work. *Academy of Management Journal*, 61(5), 1692–1717.
- Hakanen, J. J., Peeters, M. C. W., & Schaufeli, W. B. (2018). Different types of employee well-being across time and their relationships with job crafting. *Journal of Occupational Health Psychology*, 23(2), 289–301.
- Hamdan-Mansour, A. M., Mahmoud, K. F., Al Shibi, A. N., & Arabiat, D. H. (2018). Impulsivity and sensation-seeking personality traits as predictors of substance use among university students. *Journal of Psychosocial Nursing and Mental Health Services*, 56(1), 57–63.
- Haynie, J. M., Shepherd, D. A., & Patzelt, H. (2012). Cognitive adaptability and an entrepreneurial task: The role of metacognitive ability and feedback. *Entrepreneurship Theory and Practice*, 36(2), 237–265.
- Hayward, M. L., Forster, W. R., Sarasvathy, S. D., & Fredrickson, B. L. (2010). Beyond hubris: How highly confident entrepreneurs rebound to venture again. *Journal of Business Venturing*, 25(6), 569–578.
- Hogarth, R. M., & Karelaia, N. (2012). Entrepreneurial success and failure: Confidence and fallible judgment. *Organization Science*, 23(6), 1733–1747.
- Horvath, P., & Zuckerman, M. (1993). Sensation seeking, risk appraisal, and risky behavior. *Personality and Individual Differences*, 14(1), 41–52.
- Hoyle, R. H., Stephenson, M. T., Palmgreen, P., Lorch, E. P., & Donohew, R. L. (2002). Reliability and validity of a brief measure of sensation seeking. *Personality and Individual Differences*, 32(3), 401–414.
- Hsu, D. K., Shinnar, R. S., & Anderson, S. E. (2019). I wish I had a regular job’: An exploratory study of entrepreneurial regret. *Journal of Business Research*, 96, 217–227.
- Hsu, D. K., Shinnar, R. S., Powell, B. C., & Coffey, B. S. (2017). Intentions to reenter venture creation: The effect of entrepreneurial experience and organizational climate. *International Small Business Journal*, 35(8), 928–948.
- Hsu, D. K., Simmons, S. A., & Wieland, A. M. (2017). Designing entrepreneurship experiments: A review, typology, and research agenda. *Organizational Research Methods*, 20(3), 379–412.
- Hsu, D. K., Wiklund, J., & Cotton, R. D. (2017). Success, failure, and entrepreneurial reentry: An experimental assessment of the veracity of self-efficacy and prospect theory. *Entrepreneurship Theory and Practice*, 41(1), 19–47.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.
- Jaskiewicz, P., Combs, J. G., Ketchen, D. J., Jr, & Ireland, R. D. (2016). Enduring entrepreneurship: Antecedents, triggering mechanisms, and outcomes. *Strategic Entrepreneurship Journal*, 10(4), 337–345.
- Jenkins, A., & McKelvie, A. (2016). What is entrepreneurial failure? Implications for future research. *International Small Business Journal*, 34(2), 176–188.
- Jenkins, A. S., Wiklund, J., & Brundin, E. (2014). Individual responses to firm failure: Appraisals, grief, and the influence of prior failure experience. *Journal of Business Venturing*, 29(1), 17–33.
- Justo, R., DeTienne, D. R., & Sieger, P. (2015). Failure or voluntary exit? Reassessing the female underperformance hypothesis. *Journal of Business Venturing*, 30(6), 775–792.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291.
- Kalichman, S. C., Heckman, T., & Kelly, J. A. (1996). Sensation seeking as an explanation for the association between substance use and HIV-related risky sexual behavior. *Archives of Sexual Behavior*, 25(2), 141–154.
- Killinger, B. (1991). *Workaholics: The Respectable Addicts*. New York: Simon and Schuster.
- Klotz, A. C., & Neubaum, D. O. (2016). Article commentary: Research on the dark side of personality traits in entrepreneurship: Observations on an organizational behavior perspective. *Entrepreneurship Theory and Practice*, 40(1), 7–17.
- Knight, F. H. (1921). *Risk, Uncertainty and Profit* (Vol. 31). Houghton Mifflin.
- Lafuente, E., Vaillant, Y., Vendrell-Herrero, F., & Gomes, E. (2018). Bouncing Back from Failure: Entrepreneurial Resilience and the Internationalisation of Subsequent Ventures Created by Serial Entrepreneurs. *Applied Psychology*, 68(4), 658–694.
- Lawson, A. L., Liu, X., Joseph, J., Vagnini, V. L., Kelly, T. H., & Jiang, Y. (2012). Sensation seeking predicts brain responses in the old-new task: Converging multimodal neuroimaging evidence. *International Journal of Psychophysiology*, 84(3), 260–269.
- Lee, C. H., & Chiravuri, A. (2019). Dealing with initial success versus failure in crowdfunding market: Serial crowdfunding, changing strategies, and funding performance. *Internet Research*, 29(5), 1190–1212.
- Leicht, G., Trotschütz, S., Andreou, C., Karamatskos, E., Ertl, M., Naber, D., & Mulert, C. (2013). Relationship between oscillatory neuronal activity during reward processing and trait impulsivity and sensation seeking. *PLoS One*, 8(12), e83414.
- Lerner, D. A., Hunt, R. A., & Dimov, D. (2018). Action! Moving beyond the intendedly-rational logics of entrepreneurship. *Journal of Business Venturing*, 33(1), 52–69.
- Long, T. A., Reinhard, E., Sellbom, M., & Anderson, J. L. (2021). An Examination of the Reliability and Validity of the Comprehensive Assessment of Traits Relevant to Personality Disorder-Static Form (CAT-PD-SF). *Assessment*, 28(5), 1345–1357.
- Lynne-Landsman, S. D., Graber, J. A., Nichols, T. R., & Botvin, G. J. (2011). Is sensation seeking a stable trait or does it change over time? *Journal of Youth and Adolescence*, 40(1), 48–58.
- Macko, A., & Tyszka, T. (2009). Entrepreneurship and risk taking. *Applied Psychology*, 58(3), 469–487.
- Matsui, T., Okada, A., & Inoshita, O. (1983). Mechanism of feedback affecting task performance. *Organizational Behavior and Human Performance*, 31(1), 114–122.
- Mazzetti, G., Schaufeli, W. B., & Guglielmi, D. (2014). Are workaholics born or made? Relations of workaholism with person characteristics and overwork climate. *International Journal of Stress Management*, 21(3), 227–254.
- McCarthy, A. M., Schoorman, F. D., & Cooper, A. C. (1993). Reinvestment decisions by entrepreneurs: Rational decision-making or escalation of commitment? *Journal of Business Venturing*, 8(1), 9–24.
- McClelland, D. C. (1965). N achievement and entrepreneurship: A longitudinal study. *Journal of Personality and Social Psychology*, 1(4), 389–392.
- McCormick, E. M., & Telzer, E. H. (2017). Failure to retreat: Blunted sensitivity to negative feedback supports risky behavior in adolescents. *NeuroImage*, 147, 381–389.
- Michaelis, T. L., Carr, J. C., Schaeff, D. J., & Pollack, J. M. (2020). The frugal entrepreneur: A self-regulatory perspective of resourceful entrepreneurial behavior. *Journal of Business Venturing*, 35(4), 1–19.
- Minniti, M., & Bygrave, W. (2001). A dynamic model of entrepreneurial learning. *Entrepreneurship Theory and Practice*, 25(3), 5–5.
- Monsen, E., & Urbig, D. (2009). In *Perceptions of efficacy, control, and risk: A theory of mixed control* (pp. 259–281). New York, NY: Springer.
- Ng, T. W., Sorensen, K. L., & Feldman, D. C. (2007). Dimensions, antecedents, and consequences of workaholism: A conceptual integration and extension. *Journal of Organizational Behavior*, 28(1), 111–136.
- Nicolaou, N., Shane, S., Cherkas, L., & Spector, T. D. (2008). The influence of sensation seeking in the heritability of entrepreneurship. *Strategic Entrepreneurship Journal*, 2(1), 7–21.
- Nofal, A. M., Nicolaou, N., Symeonidou, N., & Shane, S. (2018). Biology and management: A review, critique, and research agenda. *Journal of Management*, 44(1), 7–31.
- Parker, S. C. (2013). Do serial entrepreneurs run successively better-performing businesses? *Journal of Business Venturing*, 28(5), 652–666.
- Parker, S. C. (2006). *Entrepreneurship, self-employment*. The Oxford Handbook of Entrepreneurship (pp. 435).
- Patel, P. C., & Thatcher, S. M. (2014). Sticking it out: Individual attributes and persistence in self-employment. *Journal of Management*, 40(7), 1932–1979.
- Peterson, R. A., & Merunka, D. R. (2014). Convenience samples of college students and research reproducibility. *Journal of Business Research*, 67(5), 1035–1041.
- Politis, D. (2008). Does prior start-up experience matter for entrepreneurs’ learning? A comparison between novice and habitual entrepreneurs. *Journal of Small Business and Enterprise Development*, 15(3), 472–489.
- Porter, G. (1996). Organizational impact of workaholism: Suggestions for researching the negative outcomes of excessive work. *Journal of Occupational Health Psychology*, 1(1), 70–84.
- Powell, G. N., & Eddleston, K. A. (2013). Linking family-to-business enrichment and support to entrepreneurial success: Do female and male entrepreneurs experience different outcomes? *Journal of Business Venturing*, 28(2), 261–280.
- Reardon, K. W., Wang, M., Neighbors, C., & Tackett, J. L. (2019). The personality context of adolescent gambling: Better explained by the Big Five or sensation-seeking? *Journal of Psychopathology and Behavioral Assessment*, 41(1), 69–80.
- Reio, T. G., Jr, & Sanders-Reio, J. (2006). Sensation seeking as an inhibitor of job performance. *Personality and Individual Differences*, 40(4), 631–642.
- Robinson, B. E. (1989). *Work Addiction*. Florida, Health Communications: Dearfield Beach.
- Rocha, V., Carneiro, A., & Varum, C. A. (2015). Serial entrepreneurship, learning by doing and self-selection. *International Journal of Industrial Organization*, 40, 91–106.
- Schaeff, A. W., & Fassel, D. (1988). *The addictive organization*. San Francisco: Harper and Row.

- Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2008). It takes two to tango. Workaholism is working excessively and working compulsively. In R. J. Burke, & C. L. Cooper (Eds.), *The long work hours culture. Causes, consequences and choices* (pp. 203–226). Emerald.: Bingley.
- Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, 99(6), 323–338.
- Schumpe, B. M., Bélanger, J. J., Moyano, M., & Nisa, C. F. (2020). The role of sensation seeking in political violence: An extension of the Significance Quest Theory. *Journal of Personality and Social Psychology*, 118(4), 743–761.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and Quasi-experimental Designs for Generalized Causal Inference*. Mifflin and Company: Houghton.
- Shane, S. A. (2008). *The illusions of entrepreneurship: The costly myths that entrepreneurs, investors, and policy makers live by*. New Haven: Yale University Press.
- Shaw, K., & Sorensen, A. (2019). The productivity advantage of serial entrepreneurs. *ILR Review*, 72(5), 1225–1261.
- Shepherd, D. A. (2003). Learning from business failure: Propositions of grief recovery for the self-employed. *Academy of Management Review*, 28(2), 318–328.
- Shepherd, D. (2015). Party On! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial. *Journal of Business Venturing*, 30(4), 489–507.
- Shimazu, A., Schaufeli, W. B., Kamiyama, K., & Kawakami, N. (2015). Workaholism vs. work engagement: The two different predictors of future well-being and performance. *International Journal of Behavioral Medicine*, 22(1), 18–23.
- Shir, N., Nikolaev, B. N., & Wincent, J. (2018). Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness. *Journal of Business Venturing*, 34(5), 1–17.
- Simmons, S. A., Carr, J. C., Hsu, D. K., & Shu, C. (2016). The regulatory fit of intentions to reengage in entrepreneurship. *Applied Psychology: An International Review*, 65(3), 603–627.
- Simmons, S. A., Wiklund, J., & Levie, J. (2014). Stigma and business failure: Implications for entrepreneurs' career choices. *Small Business Economics*, 42(3), 485–505.
- Simmons, S. A., Wiklund, J., Levie, J., Bradley, S. W., & Sunny, S. A. (2019). Gender gaps and reentry into entrepreneurial ecosystems after business failure. *Small Business Economics*, 53(2), 517–531.
- Simms, L. J., Goldberg, L. R., Roberts, J. E., Watson, D., Welte, J., & Rotterman, J. H. (2011). Computerized adaptive assessment of personality disorder: Introducing the CAT-PD project. *Journal of Personality Assessment*, 93(4), 380–389.
- Sonnentag, S., & Frese, M. (2002). Performance concepts and performance theory. In S. Sonnentag (Ed.), *Psychological management of individual performance* (pp. 3–26). Chichester: John Wiley & Sons Ltd.
- Součková, M., Vaculík, M., & Procházková, J. (2014). Personality traits and workaholism. *International Journal of Humanities and Social Science*, 4(14), 70–79.
- Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, 14(2), 287–305.
- Spivack, A. J., & McKelvie, A. (2018). Entrepreneurship Addiction: Shedding Light on the Manifestation of the “Dark Side” in Work-Behavior Patterns. *Academy of Management Perspectives*, 32(3), 358–378.
- Spivack, A. J., & McKelvie, A. (2021). Measuring addiction to entrepreneurship. *Journal of Business Venturing Insights*, 15, e00212.
- Spivack, A. J., McKelvie, A., & Haynie, J. M. (2014). Habitual entrepreneurs: Possible cases of entrepreneurship addiction? *Journal of Business Venturing*, 29(5), 651–667.
- Stahl, M. J. (1986). *Managerial and technical motivation: Assessing needs for achievement, power, and affiliation*. New York: Praeger.
- Stam, E., & Schutjens, V. (2006). Starting anew: Entrepreneurial intentions and realizations subsequent to business closure. *ERIM Report Series Reference No. ERS-2006-015-ORG*.
- Stephan, U. (2018). Entrepreneurs' mental health and well-being: A review and research agenda. *Academy of Management Perspectives*, 32(3), 290–322.
- Taris, T. W., Geurts, S. A., Schaufeli, W. B., Blonk, R. W., & Lagerveld, S. E. (2008). All day and all of the night: The relative contribution of two dimensions of workaholism to well-being in self-employed workers. *Work & Stress*, 22(2), 153–165.
- Thimm, J. C. (2020). The Norwegian computerized adaptive test of personality disorder–static form (CAT-PD-SF): Reliability, factor structure, and relationships with personality functioning. *Assessment*, 27(3), 585–595.
- Torrès, O., & Thurik, R. (2018). Small business owners and health. *Small Business Economics*, 53(2), 1–11.
- Ucbasaran, D., Shepherd, D. A., Lockett, A., & Lyon, S. J. (2013). Life after business failure: The process and consequences of business failure for entrepreneurs. *Journal of Management*, 39(1), 163–202.
- van Beek, I., Taris, T. W., & Schaufeli, W. B. (2011). Workaholic and work engaged employees: Dead ringers or worlds apart? *Journal of Occupational Health Psychology*, 16(4), 468–482.
- van den Broeck, A., Schreurs, B., De Witte, H., Vansteenkiste, M., Ghermeys, F., & Schaufeli, W. (2011). Understanding workaholics' motivations: A self-determination perspective. *Applied Psychology*, 60(4), 600–621.
- Verheul, I., Block, J., Burmeister-Lamp, K., Thurik, R., Tiemeier, H., & Turturea, R. (2015). ADHD-like behavior and entrepreneurial intentions. *Small Business Economics*, 45(1), 85–101.
- Walsh, G. S., & Cunningham, J. A. (2017). Regenerative failure and attribution: Examining the underlying processes affecting entrepreneurial learning. *International Journal of Entrepreneurial Behavior & Research*, 23(4), 688–707.
- Westhead, P., & Wright, M. (1998). Novice, portfolio, and serial founders: Are they different? *Journal of Business Venturing*, 13(3), 173–204.
- Wiklund, J., Patzelt, H., & Dimov, D. (2016). Entrepreneurship and psychological disorders: How ADHD can be productively harnessed. *Journal of Business Venturing Insights*, 6, 14–20.
- Wiklund, J., Yu, W., Tucker, R., & Marino, L. D. (2017). ADHD, impulsivity and entrepreneurship. *Journal of Business Venturing*, 32(6), 627–656.
- Wright, M., Robbie, K., & Ennew, C. (1997). Serial entrepreneurs. *British Journal of Management*, 8(3), 251–268.
- Xu, S., Luo, L., Xiao, Z., Zhao, K., Wang, H., Wang, C., & Rao, H. (2019). High sensation seeking is associated with behavioral and neural insensitivity to increased negative outcomes during decision-making under uncertainty. *Cognitive, Affective, & Behavioral Neuroscience*, 19(6), 1352–1363.
- Yam, K. C., Christian, M. S., Wei, W., Liao, Z., & Nai, J. (2018). The mixed blessing of leader sense of humor: Examining costs and benefits. *Academy of Management Journal*, 61(1), 348–369.
- Yamakawa, Y., Peng, M. W., & Deeds, D. L. (2015). Rising from the ashes: Cognitive determinants of venture growth after entrepreneurial failure. *Entrepreneurship Theory and Practice*, 39(2), 209–236.
- Zeijen, M. E., Peeters, M. C., & Hakanen, J. J. (2018). Workaholism versus work engagement and job crafting: What is the role of self-management strategies? *Human Resource Management Journal*, 28(2), 357–373.
- Zheng, Y., & Liu, X. (2015). Blunted neural responses to monetary risk in high sensation seekers. *Neuropsychologia*, 71, 173–180.
- Zhu, F., Hsu, D. K., Burmeister-Lamp, K., & Fan, S. X. (2018). An investigation of entrepreneurs' venture persistence decision: The contingency effect of psychological ownership and adversity. *Applied Psychology*, 67(1), 136–170.
- Zuckerman, M. (1979). *Sensation seeking: Beyond the optimal level of arousal*. Hillsdale, NJ: Erlbaum.
- Zuckerman, M. (1994). *Behavioral Expressions and Biosocial Bases of Sensation Seeking*. Cambridge, U.K: Cambridge University Press.