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THE NATIONAL FEDERATION OF INDEPENDENT BUSINESS (NFIB) AWARD FOR
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**FINDING THE PASSION TO PERSEVERE: AN
EXPLORATION OF THE MECHANISMS BY WHICH
PASSION FUELS ENTREPRENEURIAL GRIT**

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ABSTRACT

The ability to persevere, to push through setbacks and adversity on the long road to success is often viewed as a hallmark of entrepreneurial success. Perseverance, or grit, is an important component of an overarching complex system of self-governing behaviors commonly referred to as self-regulation. Self-regulation is widely viewed as a crucial factor in the success of the individual in a wide variety of contexts, but at present we know relatively little about how the various component behaviors interact with and reinforce one another. Additionally, research probing how individuals develop self-regulatory behaviors – like grit – is in its infancy. This research seeks to address this gap by investigating the antecedents of grit and finds that passion acts as an indirect antecedent of grit, with its effects mediated by two self-regulatory mechanisms: locomotion and learning goal orientation. Our results also indicate that assessment has a negative relationship with grit. Implications of these findings are then discussed.

INTRODUCTION

“I do not think there is any other quality so essential to success of any kind as the quality of perseverance. It overcomes almost everything, even nature.” – John D. Rockefeller

Grit – broadly defined as perseverance and passion for long-term goals – has long been considered important in an entrepreneur’s success by practitioners (Carlson, 2003; Williams, 1999; Winnen, 2005) and relatively recently has captured the attention of entrepreneurship scholars as well (Cardon, Wincent, Singh, & Drnovsek, 2009; Cross & Travaglione, 2003; DeTienne, Shepherd, & De Castro, 2008; Gimeno, Folta, Cooper, & Woo, 1997; Kay, 1985; Nambisan & Baron, 2012). Grit has been shown to be associated with higher educational attainment, higher college grade point average, as well as with an enhanced likelihood of completion of the intense training at the prestigious United States Military Academy at West Point (Duckworth, Peterson, Matthews, & Kelly, 2007). Overall, grit has been shown to be an enabler of success for individuals facing tough situations that are filled with setbacks and apparent failures.

Upon recognizing an opportunity, entrepreneurs move ahead to exploit that opportunity, working hard to make their dreams and goals come true. They are true leaders in the sense of being first and having a vision and then motivating themselves and others to strive to achieve those goals regardless of the obstacles they face (Barendsen & Gardner, 2004; Fernald, Solomon, & Tarabishy, 2005; Jensen & Luthans, 2006). Thus, grit has been widely associated with entrepreneurial success, both anecdotally and in prior research (Markman, Baron, & Balkin, 2005; Sexton & Bowman,

1986; Stolz, 1997). In fact, grit may be crucial for entrepreneurial success, given the notorious ups and downs of the entrepreneurial experience (Baron & Shane, 2004). Yet, we do not know why certain entrepreneurs persist in the face of daunting odds, while others bow beneath adversity.

Recent work suggests that entrepreneurial passion powers an entrepreneur's efforts to adapt and cope with various challenges (Russell, 2003). Passion is aroused by activities or roles that are meaningfully connected to core self-identities. This experience of entrepreneurial passion affects a "complex pattern of psychological, brain, and body responses" that can fuel pursuit of important goals when properly regulated (Cardon et al., 2009). In developing a model of entrepreneurial grit, we highlight the important role that self-regulation plays in focusing and directing passion in ways that enable perseverance. Drawing extensively on self-regulatory theory, we explore the specific mechanisms by which passion influences entrepreneurial grit, and in doing so make a number of contributions to the field.

First, while grit has been shown to be a critical element in explaining individual success across domains, scholars still know little about the motivational and self-regulatory constructs underlying it. Clarifying these antecedents and mediating processes advances a deeper understanding of why and when certain individuals persevere while others do not. This study develops theory tying together passion, self-regulation, and grit and empirically confirms that passion fuels grit through its influence on self-regulatory mode and learning goal orientation. Second, while passion has long been considered a central, and often defining, characteristic of entrepreneurs (Baron, 2006), scholars have only just begun to explore how entrepreneurial passion influences individual and venture outcomes (Cardon, 2008; Cardon et al., 2009; Chang, 2001). This research provides empirical evidence of the role of passion in entrepreneurship and specifically highlights its influence on entrepreneurial grit through two self-regulatory mediating mechanisms: self-regulatory mode and learning goal orientation. Both passion (Baron, 2007; Cardon et al., 2009; Chen, Yao, & Kotha, 2009) and self-regulation (Baron & Henry, 2010; Forgas et al., 2009; Nambisan & Baron, 2012) have been studied by entrepreneurship scholars but this study uniquely contributes by drawing empirical connections between these two constructs.

Third, while perseverance is often viewed as an advantageous behavior, allowing individuals to overcome momentary setbacks and challenges in the successful pursuit of goals, perseverance can also lead to adverse outcomes when individuals pursue unattainable or unrealistic goals (Bandura, 1989). In exploring self-regulatory mode (locomotion and assessment) as antecedents of entrepreneurial grit, this study provides a nuanced view of how locomotion and assessment differentially affect grit. Our results suggest that locomotion positively enhances grit whereas assessment diminishes grit. This not only adds to our scholarly understanding of the relationship between locomotion, assessment, and grit but also allows practitioners to better understand their own propensities to persevere, and take measures to guard against single-mindedly persevering when changing course may be the more optimal behavior.

In short, our model of entrepreneurial grit explores the underlying motivational and self-regulatory antecedents of grit, helping to extend understanding of why and how certain individuals persevere in the face of adversity while others quit or change course. In doing so, we tie together emerging theory on entrepreneurial passion and self-regulation, providing insight into how individuals regulate their passion to facilitate goal pursuit. Next, we describe the theoretical foundation of our model and present our hypotheses. We then follow up with a description of our research method, results, and a discussion of our findings.

THEORETICAL FRAMEWORK

"I'm convinced that about half of what separates the successful entrepreneurs from the non-successful ones is pure perseverance. It is so hard. You put so much of your life into this thing... Unless you have a lot of passion about this, you're not going to survive. You're going to give it up." – Steve Jobs

Self-regulatory theories view the individual as a complex goal-directed system that self-regulates behaviors and actions in order to achieve important goals (Vancouver & Day, 2005; Vohs & Baumeister, 2004). Self-regulatory processes encompass a variety of functions including goal creation, planning, striving, and revision (Austin & Vancouver, 1996). Perseverance, or grit, is largely focused on issues of goal striving – moving toward or maintaining a goal – and goal revision – changing or disengaging from a goal. One of our fundamental research questions focuses on illuminating those factors that explain why certain individuals strive more towards key goals while others change or disengage from goals. While research into perseverance is in its infancy, previous work has suggested that motivation and self-regulation are important determinants of an individual's level of perseverance relative to a given goal or task.

Passion has been depicted as an energy that gives individuals a feeling of "pleasure and promise" (Rockwell, 2002: 52) and engages them "wholeheartedly with what ...[they] love" (Belitz & Lundstrom, 1997: 57). Passion is thought to prompt desires, thoughts, plans, and behaviors that persist over time, despite high costs, difficulties, and significant setbacks (Frijda, 2005). As such, emerging theory in the field of entrepreneurship suggests that passion leads to perseverance (Cardon et al., 2009), though the self-regulatory mechanisms by which individuals direct passion into goal-related perseverance have yet to be identified and explored.

Previous work on self-regulation has specifically connected passion to two self-regulatory constructs: self-regulatory mode and learning goal orientation. Locomotion and assessment are two distinct regulatory modes that orient individuals in terms of *how* they pursue important goals. Individuals high in locomotion pursue their goals in a straightforward and direct manner, without distraction or delay. In contrast, individuals high in assessment spend significant time evaluating and comparing options for goal pursuit prior to moving forward. Locomotion and assessment can compete for an individual's resources (i.e., time, energy, or attention) and individuals can emphasize one or the other in pursuing a given goal (Higgins, Kruglanski, & Pierro, 2003). According to social cognitive theory, forethought and the positive self-reactions that often follow efforts of passion would motivate individuals to be action-oriented and to behave in an anticipatory proactive manner (Bandura, 1991; Zimmerman, 2000). Thus, we explore locomotion as a possible mediator of the passion-grit relationship. Given the emphasis on constantly reassessing goals and means of goal pursuit, we also explore assessment as a potential negative antecedent to grit.

Passion has also been associated with intrinsic motivation relative to particular domains (Cardon et al., 2009). High intrinsic motivation is often reflected by individuals focusing on learning and striving towards mastery in order to develop needed capabilities for activities they enjoy and goals they aspire toward (Baum & Locke, 2004). Accordingly, we explore learning goal orientation as a potential mediator of the passion-grit relationship. Our model for entrepreneurial grit is shown below in Figure 1. Next, we turn to developing our hypotheses.

Passion and Locomotion

As previously discussed, self-regulatory mode generally consists of two behavioral orientations. The first orientation (locomotion) emphasizes an individual's proclivity to act in pursuing their goals while the second orientation (assessment) emphasizes the assessment of options prior to and during goal pursuit (Higgins et al., 2003). Locomotion is concerned with movement from state to state, hence, with the initiation and maintenance of goal-directed movement in a straightforward manner (Kruglanski et al., 2000). Individuals high in locomotion are often depicted as high energy, action-oriented individuals who are 'doers' and act without much prior appraisal or assessment of options. Individuals high in assessment are more consumed with an ongoing assessment of goal pursuit options, or even an appraisal of goals themselves, and this self-regulatory mode will be further discussed in an upcoming section.

Entrepreneurial passion has been characterized as an enthusiasm for venture-related activities (Smilor, 1997) or a love of entrepreneurial work (Shane, Locke, & Collins, 2003). Social cognitive theories of self-regulation suggest that entrepreneurs will confidently pursue courses of action that produce positive self-reactions. Passion often involves intense and pleasurable feelings as entrepreneurs engage in activities that are deeply meaningful and rewarding to them (Cardon et al., 2009). Psychological studies of behavior patterns associated with positive feelings show that such feelings promote continued investment in the activities or tasks that invoke such feelings (Pham, 2004). In fact, passionate endeavors can result in behaviors that are obsessive, blind, or misdirected (e.g., Vallerand et al, 2003) as individuals act without proper consideration and evaluation of alternatives. Thus, it is likely that entrepreneurial passion will prompt a locomotion orientation towards goal pursuit, rather than an assessment orientation. On the basis of this reasoning, we propose the following hypothesis:

Hypothesis 1: Entrepreneurial passion has a positive relationship with locomotion.

Locomotion and Grit

For the purposes of this study, entrepreneurial grit has been defined as consistently maintaining interest in and persistently moving towards one's goals, in spite of adversity and competing opportunities. This definition incorporates two aspects of grit: perseverance of effort – diligently working towards one's goals despite hardship and attractive alternatives – and consistency of interest – consistent focus on a given goal or objective. Extant research on self-regulatory mode suggests that locomotion may lead to both perseverance of effort and consistency of interest.

Individuals who are high in locomotion have been found to exhibit greater degrees of positive affect, self-esteem, and optimism (Kruglanski et al., 2000). Prior work suggests that this is due to the forward movement, or progress, that locomotion brings about. This goal progress is likely to encourage perseverance of effort as entrepreneurs see themselves inching closer to their goals, helping to boost their overall positive affect (Carver & Scheier, 1990). Additionally, high locomotion is associated with a stronger task orientation – the tendency to attend to a task and conscientiously persist until completion (Kruglanski et al., 2000) – allowing individuals to maintain their efforts and persevere until goals are achieved. Locomotion also expedites decision processes (Kruglanski et al., 2000), enabling individuals to exhibit greater decisiveness and to reject competing interests and opportunities and thus maintaining their focus. Finally, locomotion

breeds a greater propensity for forward movement and subsequent experiential involvement in a task (Csikszentmihalyi, 1975; Pierro, Kruglanski, & Higgins, 2006). Such extensive involvement primes heightened levels of intrinsic motivation (Koestner, Zuckerman, & Koestner, 1987), ensuring a sustained interest in the task. On the basis of the above reasoning, we hypothesize:

Hypothesis 2: Locomotion has a positive relationship with grit.

Based on the preceding logic, we contend that entrepreneurial passion leads to action (locomotion) as individuals strive for positive self-reactions from engagement in venture-related activities. Further, we suggest that locomotion leads to goal progress and forward momentum, heightening the likelihood that entrepreneurs will persist in their efforts and maintain focus on their objectives. Thus, we hypothesize:

Hypothesis 2a: The effects of entrepreneurial passion on grit are mediated by the entrepreneur's locomotion.

Passion and Learning Goal Orientation

Social cognitive theory suggests that individual characteristics or attributes (like passion) can drive an individual to achieve states that they believe are necessary for their optimal functioning (Bandura, 1986; Bandura, 1997). Passionate individuals are, thus, motivated to develop competency relative to their areas of passion. Baum and Locke (2004) suggest that passionate entrepreneurs are more prone to invest resources to develop needed skills and capabilities for activities they enjoy and goals they aspire toward. The positive affect and intrinsic motivation that has been associated with passion influences the nature of goal striving and leads to a focus on learning and mastery building (Cardon et al., 2009). Learning goal orientation is defined as “a desire to develop the self by acquiring new skills, mastering new situations, and improving one’s competence” (VandeWelle, 1997, p. 1000). Psychologists (Dweck & Leggett, 1988; VandeWelle & Cummings, 1997) state that individuals pursue a learning goal orientation to “develop competence by acquiring new skills and mastering new situations” (Brett & VandeWalle, 1999, p. 864). On the basis of the above reasoning, we propose the following hypothesis:

Hypothesis 3: Entrepreneurial passion has a positive relationship with learning goal orientation.

Learning Goal Orientation and Grit

Learning goal orientation has been associated with three patterns of how individuals respond to achievement situations (VandeWalle & Cummings, 1997). First, individuals with a learning goal orientation tend to view ability as a malleable attribute that can be developed through effort and experience (Dweck & Leggett, 1988). In contexts where their skills or abilities fall short, individuals with a learning goal orientation are likely to invest time and effort in developing their abilities, rather than quitting or pursuing other options. Second, individuals with a learning goal orientation believe that efforts lead to success (VandeWalle & Cummings, 1997). Effort is viewed as a primary means of accomplishing difficult tasks and for developing future mastery. Third, individuals with a learning goal orientation respond positively to task difficulty they try harder, engage in self-training, and report that they enjoyed the challenge (Dweck & Leggett, 1988; Elliott & Dweck, 1988; VandeWalle & Cummings, 1997).

In sum, these patterns of behavior – viewing ability as a malleable attribute, believing that effort will pay off, and enjoying challenges – suggest that individuals who have a learning goal orientation will be likely to maintain their interest in a given goal or objective and persevere over time and through hardship in pursuing those valued ends. On the basis of the above reasoning, we propose the following hypotheses:

Hypothesis 4: Learning goal orientation has a positive relationship with grit.

Based on the preceding logic, we contend that passion prompts an entrepreneur to develop a learning goal orientation towards venture-related activities, and that this learning goal orientation inclines them to develop mastery, exert effort, and thrive on challenge in pursuing valued goals over time and through difficulty. Thus, we hypothesize:

Hypothesis 4a: The effects of entrepreneurial passion on grit are mediated by the entrepreneur's learning goal orientation.

Assessment and Grit

Assessment represents the comparative mode of self-regulation concerned with critically evaluating entities or states, such as goals and means, in relation to standards and alternatives in order to judge their relative qualities (Kruglanski et al., 2000). Individuals high in assessment are focused on evaluations of their actual self in comparison to alternative standards including those of other individuals (Higgins, 1987; Kruglanski et al., 2000). These individuals are prone to excessive self-evaluations and are constantly re-assessing their situation and path forward. During goal pursuit, such tendencies can be detrimental to sustained goal progress as failure and/or the lack of discernible progress can heighten the attractiveness of competing goals and decrease the perceived attainability of the current goal.

Furthermore, assessment is negatively related to overall task orientation (Kruglanski et al., 2000), leading individuals high in assessment to more easily lose interest in their activities. Constant comparison and reappraisal of one's current goals and progress will negatively affect an individual's consistency of interest and perseverance of effort, especially when current goals are long-term in nature and entail significant adversity. On the basis of the above reasoning, we propose the following hypothesis:

Hypothesis 5: Assessment has a negative relationship with grit.

METHOD

Sample and Procedures

Our data were collected from entrepreneurs (i.e. owners or founders) with businesses located in 26 different states. Initially, 3,000 entrepreneurs were identified as entrepreneurial alumni of a regional research university. These 3,000 entrepreneurs constituted the initial call list from which 536 entrepreneurs were eventually contacted, with all other calls going unanswered or found to be invalid. Entrepreneurs that agreed to participate in the study were forwarded a survey link.

Of the 536 entrepreneurs we initially contacted, we received 203 full completes reflecting a 37.87% response rate. The entrepreneurs in our sample were found to operate in a wide array of industries including advertising, construction, printing, and medical imaging. The participating entrepreneurs were on average 55.7 years old (sd. = 10.38); 79% were male; 3.4% held a PhD degree as their highest qualification, 30.4% had a Master's degree, 59.3% had a Bachelor's degree, and the remainder had either some college experience or a high school diploma.

Measures

Passion. This study utilized a measure of entrepreneurial passion as developed by Cardon, Gregoire, Stevens, and Patel (2012). Entrepreneurs were shown 13 items and asked to rate, on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), their agreement or disagreement with the item statements. The items represented (1) Inventor passion; (2) Founding passion; and (3) Developing passion as sub-scales of entrepreneurial passion. The measure produced a Cronbach alpha score of 0.86.

Locomotion. Our measure of locomotion was developed by Kruglanski et al. (2000). The measure consists of 12 items which use a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Examples items include, "I am a 'doer'" and "When I decide to do something, I can't wait to get started." Item responses were summed and averaged into a mean score where high scores indicated greater locomotion and low scores indicated less locomotion. The measure produced a Cronbach alpha score of 0.82.

Assessment. We used Kruglanski et al's (2000) scale to measure assessment. The measure consists of 11 items for which respondents are asked to rate their agreement on a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Example items include, "I often compare myself with other people" and "I often critique work done by myself or others." Summed item totals were averaged into a mean score where high scores indicated greater levels of assessment and low scores indicated less assessment. The measure produced a Cronbach alpha score of 0.76.

Grit. This study used a measure of grit as developed by Duckworth & Quinn (2009). Entrepreneurs were shown 8 items and asked to rate, on a five-point Likert scale ranging from 1 (not at all like me) to 5 (very much like me), how representative the items were of them. The items represented (1) Consistency of interest; and (2) Perseverance of effort as sub-scales of grit. The measure produced a Cronbach alpha score of .80.

Learning Goal Orientation. Our measure of learning goal orientation was developed by VandeWalle (1997). Entrepreneurs were shown 5 items and asked to rate, on a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree), how characteristic each of the item was of themselves. Examples of some items from the scale are "I am willing to select a challenging work assignment that I can learn a lot from" and "I often look for opportunities to develop new skills and knowledge". The measure produced a Cronbach alpha score of .86.

Control Variables. First, we controlled for a number of individual level demographic variables, including the age, gender, race, and education of the entrepreneur, in order to partial out the effect that these factors might have upon their self-regulatory abilities. Second, the entrepreneur's previous startup experience was controlled for as this could influence how self-regulatory skills are leveraged in developing grit. We also controlled for startup experience, which was operationalized

as the number of startups the entrepreneur had previously been involved in. Finally, we controlled for the age of the firm to minimize the effect that firm age may have upon the relationship between the individual entrepreneur's passion and other variables.

RESULTS

Table 1 presents the means, standard deviations, and bivariate correlations of the study's measures. We utilized OLS regression analysis to test our model. Variance inflation factors were all within acceptable levels (below 2.0) and all bivariate correlations were low (below 0.4), with two exceptions. The correlations between passion and locomotion ($\rho = 0.493$, $p < 0.01$), and locomotion and learning goal orientation ($\rho = 0.566$, $p < 0.01$) were both somewhat above the limit to classify them as low, but were still well below the cutoff (0.6) to be deemed high. These results minimize concerns of potential multicollinearity between variables. Additionally, the residuals were checked for relative normality in distribution.

To provide a robustness check to the regression analysis, the entire conceptual model was estimated using path analysis with structural equation modeling, and no significant variances were detected in terms of the relationships presented. This additional analysis also allowed for the testing of the presence of full versus partial mediation effects with regards to passion's influence on grit as mediated by locomotion and learning goal orientation. While traditional methods of mediation testing involve the process outlined by Baron and Kenny (1986), this method was recently called into question with regards to its accuracy and applicability to all situations (LeBreton, Wu, & Bing, 2009). To appropriately analyze the presence of mediation, path analysis with direct and indirect effect analysis was completed to determine the validity of the predicted mediated relationships. This analysis confirmed that the influence of passion was indeed fully mediated by locomotion and learning goal orientation, relationships which will be detailed further in subsequent sections. Table 2 details the results of the models for the dependent variables of locomotion (testing H1), learning goal orientation (testing H3), and grit (testing H2, H2a, H4, H4a, and H5).

In Models 1 and 2 of Table 2, the dependent variable is locomotion. The base model (including the control variables only) explains a small, but significant amount of the variance in locomotion ($R^2 = 0.099$, $p < 0.01$). The addition of the main effect of entrepreneurial passion on locomotion (Model 2), explains a significant amount of the variance in locomotion ($R^2 = 0.297$, $p < 0.01$), and a significant amount of variance over and above the base model ($DR^2 = 0.201$, $p < 0.01$). Hypothesis 1 stated that entrepreneurial passion has a positive relationship with locomotion. The results reveal a significant, positive relationship between entrepreneurial passion and locomotion ($\beta = 0.383$, $p < 0.01$), which provides support for Hypothesis 1.

In Models 3 and 4 of Table 2, the dependent variable is learning goal orientation. The base model (including only the control variables) explains a small, but significant, portion of the variance in learning goal orientation ($R^2 = 0.053$, $p < 0.01$). The addition of the main effect of entrepreneurial passion on learning goal orientation (Model 4) explains a significant amount of the variance in learning goal orientation ($R^2 = 0.180$, $p < 0.01$), and a significant amount of variance over and above the base model ($DR^2 = 0.127$, $p < 0.01$). Hypothesis 3 stated that entrepreneurial passion has a positive relationship with learning goal orientation. The results reveal a significant, positive relationship between entrepreneurial passion and learning goal orientation ($\beta = 0.363$, $p < 0.01$), providing support for Hypothesis 3.

In Models 5 and 6 of Table 2, the dependent variable is grit, including the base model (control variables only), and the full model (including the control variables and the main effects). The base model (Model 5) explains a small, but significant, amount of the variance in grit ($R^2 = 0.045$, $p < 0.01$). The full model (Model 6) explains a significant amount of variance in grit ($R^2 = 0.266$, $p < 0.01$), and a significant amount of variance over and above the base model ($DR^2 = 0.221$, $p < 0.01$). Hypothesis 2 stated that locomotion has a positive relationship with grit. The results reveal a significant, positive relationship between entrepreneurial locomotion and grit ($\beta = 0.324$, $p < 0.01$), providing support for Hypothesis 2. Hypothesis 4 stated that learning goal orientation has a positive relationship with grit. The results reveal a significant, positive relationship between learning goal orientation and grit ($\beta = 0.145$, $p < 0.05$), providing support for Hypothesis 4. Hypothesis 5 stated that assessment has a negative relationship with grit. The results reveal a significant, negative relationship between assessment and grit ($\beta = -0.185$, $p < 0.01$), providing support for Hypothesis 5. Finally, since path analysis revealed no significant, direct effects of passion on grit, and in combination with the previous findings, both Hypothesis 2a and Hypothesis 4a were supported.

DISCUSSION

“In the race for success, speed is less important than stamina. The stickler outlasts the sprinter in life’s race. In America we breed many hares but not so many tortoises”
– B.C. Forbes

Our study confirms our hypotheses, showing that a link exists between entrepreneurs’ passion and their ability to self-regulate themselves through locomotion and learning goal orientation in enabling grit. Passion, it seems, is essential not only for starting the entrepreneurial journey (via locomotion), but it also helps an entrepreneur to stay on track (i.e. maintain consistency of interest), and continue moving forward (i.e. perseverance of effort) in part by developing competence, acquiring new skills, and mastering new situations (i.e. learning goal orientation). An entrepreneur’s persistence in the pursuit of key goals has been deemed critical to their eventual success (Gimeno et al., 1997), and this study helps to clarify the underlying motivational and self-regulatory mechanisms that fuel such perseverance.

By doing so, this study helps to draw attention to the importance of passion and self-regulation in helping to explain important entrepreneurial behaviors and outcomes. Self-regulatory mode, in particular, is highlighted in this study as an important antecedent of perseverance. We find that locomotion has a positive relationship with grit, while assessment negatively influences grit. This finding has important implications as both locomotion and assessment can lead to adaptive regulatory effects on goal pursuit, depending on whether or not perseverance can/will lead to positive entrepreneurial outcomes. While consistently painted as a beneficial trait, grit can lead to negative outcomes where goals are unreachable or entail significant costs. In such cases, an assessment orientation may prove more beneficial to the entrepreneur by emphasizing a reassessment of goals and progress, where alternative courses may be evaluated and selected. Future research might look into how diversity of self-regulatory mode amongst executive teams can lead to a more balanced pursuit of goals, where the advantages of locomotion and assessment can both be leveraged.

This study also extends theory relative to the role of entrepreneurial passion. While passion has been theorized to hold great promise in explaining entrepreneurial behavior and outcomes (Cardon et al., 2009), this study is one of the first to empirically connect passion to entrepreneurial behavior/characteristics. Future research might explore other mechanisms by which passion influences entrepreneurial behavior, strategy, and outcomes.

There are important limitations of the present study that should be noted so that they can be addressed in future research. First, several of the measures employed in the study were self-report in nature (e.g., passion, locomotion, assessment). These measures were based on ones used in previous research and they have been shown to have stable reliability and validity. Nevertheless, these constructs are very complex and it is necessary for this research to be replicated with additional measures. Second, as the present data were cross-sectional in nature, the issue of causality remains uncertain. Future research should employ longitudinal designs in order to confirm the causality inferred herein.

To conclude, the findings of this research study suggest that entrepreneurial passion is instrumental not only in inspiring entrepreneurs but in motivating them to persevere. Thus, entrepreneurial passion is not only a spark that ignites entrepreneurial action but a perennial source of energy that can sustain and fuel the entrepreneur along the long and arduous road to success.

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APPENDIX

Figure 1: Conceptual Model

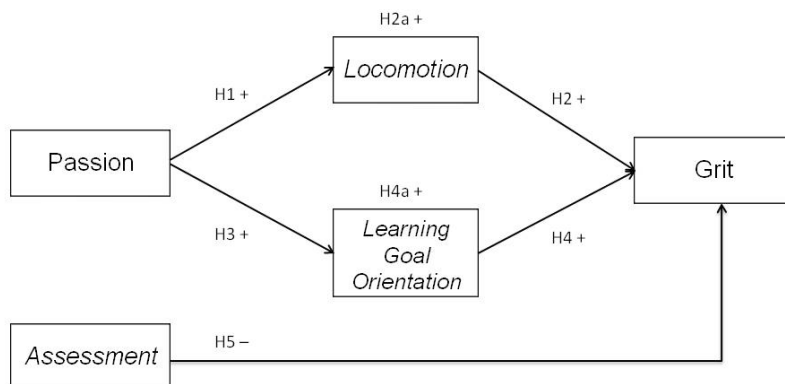


Table 1: Means, Standard Deviations, and Correlations

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Age	55.725	10.379	1.000									
2. Gender	1.206	0.405	-0.136	1.000								
3. Education	5.225	0.864	0.129	-0.203**	1.000							
4. Previous experience	2.917	3.002	0.035	-0.156*	0.079	1.000						
5. Age of firm	23.468	19.428	0.273**	-0.157*	-0.073	-0.081	1.000					
6. Passion	5.837	0.683	-0.046	0.041	-0.038	0.177*	-0.171*	1.000				
7. Locomotion	5.014	0.570	-0.186	0.135	-0.020	0.071	-0.260**	0.493**	1.000			
8. Learning goal orientation	4.995	0.671	-0.030	0.080	0.004	0.042	-0.212*	0.385**	0.566**	1.000		
9. Assessment	3.828	0.702	-0.097	-0.084	-0.081	0.012	-0.049	0.211**	0.202**	0.184**	1.000	
10. Grit	3.768	0.568	-0.030	0.139*	-0.004	-0.022	-0.175*	0.260**	0.426**	0.356**	-0.121	1.000

n = 203

* p < 0.05

** p < 0.01

Table 2: Results of Hypotheses Testing Using Regression Analysis

	Locomotion		Learning Goal Orientation		Grit		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	
<i>Control Variables</i>							
Age	-0.007	-0.007	0.003	0.003	0.001	0.002	
Race	-0.038	-0.053	-0.092	-0.107	0.043	0.027	
Gender	0.118	0.102	0.091	0.077	0.161	0.061	
Education	-0.022	0.001	-0.007	0.014	0.003	-0.007	
Previous experience	-0.012	-0.003	0.006	-0.008	-0.003	-0.011	
Age of firm	-0.006	-0.004	-0.007	-0.005	-0.005*	-0.002	
<i>Predictor Variables</i>							
Passion		0.383**		0.363**		0.068	
Locomotion						0.324**	
Learning goal orientation						0.145*	
Assessment						-0.185**	
	R^2	0.099**	0.297**	0.053*	0.180**	0.045**	0.266**
	Adj. R^2	0.071**	0.272**	0.024*	0.150**	0.016**	0.227**
	ΔR^2		0.201**		0.127**		0.221**

n = 203

* p < 0.05

** p < 0.01