**R. Van Ness, Ph.D., C. Seifert, Ph.D., J. Marler, Ph.D., W. Wales, Ph.D. & M. Hughes, Ph.D.**

**Are Entrepreneurs Different?**

**ABSTRACT**

The literature suggests that entrepreneurs are progressive, dynamic, and vital to economies (Henderson and Weiler, 2010) and yet much remains unknown about them as individuals (Murnieks, Mosakowski, and Cardon 2014). Recognizing salient differences among individuals pursuing entrepreneurial activity is a crucial step toward understanding what drives entrepreneurs within different settings and provides a clearer picture of what distinguishes them from resolute employees. This study centers on gaining new understanding of individuals who are inclined to enthusiastically pursue entrepreneurial activities on a full-time basis, paving a path to more effective and efficient methods of guidance and assistance. This knowledge offers the potential of providing enduring benefits to communities, governing agencies, educators, commercial lenders, as well as the entrepreneurs themselves. Our research builds on prior work however, it differs in that it factors heterogeneity of entrepreneurs based on motivation (Pull/Push) and intensity of their commitment (Fulltime/Part-time). A new model to disentangle the collective of entrepreneurs is developed and Push Pull Motivation Theory is employed to distinguish Proactive and Reactive entrepreneurs. Proactive fulltime entrepreneurs differed significantly from their nonentrepreneurial counterparts within four psychological characteristics: openness, work centrality, self-reliance, and entrepreneurial self-efficacy.

Key Words: Entrepreneur Characteristics; Personality; Work Ethic; Self-reliance; Entrepreneurial Self-efficacy

**INTRODUCTION**

Entrepreneurs represent critical sparkplugs for economic vibrancy and the financial well-being for not only their families, but also for communities (Folster, 2000; Henderson and Weiler, 2010; Stel, Caree, and Thurik, 2005; Zachary and Mishra, 2011). The literature suggests entrepreneurs are progressive and dynamic and, may possess a unique set of beliefs and personal characteristics which act as motivators (cf. Baron, Franklin, and Hmieleski, 2013; Hung and Tangpong, 2010; Rogers, Viding, and Chamorro-Premuzic, 2013; Wong, and Carducci, 2016). However, despite the significant and impressive body of literature dedicated to this issue, much remains unknown about the psychology of entrepreneurs as a collective (cf. Carsrud and Brännback, 2011; Jennings and McDougald 2007; Murnieks, Mosakowski, and Cardon, 2014). Perhaps the reason for this is related to the differing motivations for, and expressions of entrepreneurship. These differences can make successfully isolating any generalizable uniqueness with the broad spectrum of entrepreneurs, challenging and likely to yield weak, inconsistent, non-existent, or non-replicable results.

However, subdividing entrepreneurs based on their greatest similarities, such as their motivation (Pull or Push) (Ratten, 2016) and depth of commitment (Fulltime or Part-time) may enable identification of some significantly differentiating characteristics when compared to either other subsets of entrepreneurs or to non-entrepreneurs. This division can sharpen the focus and deepen the insight into factors closely correlated with choices made. In this study we theorize an employment continuum with enthusiastically “Pull” motivated fulltime entrepreneurs at one end and resolute fulltime employees at the other. Comparing the beliefs and characteristics of individuals at these extreme points improves the probability of elucidating any profound differences that may exist between them. Should such differences exist, a clearer understanding of these may enable more effective and efficient methods of guidance and assistance for entrepreneurially oriented individuals, potentially providing enduring benefits to communities, governing agencies, educators, commercial lenders, as well as, the entrepreneurs themselves.

This study builds upon and extends prior research, however, since entrepreneurial activity may take many forms and have different motivations, we first disentangles the collective of entrepreneurs into categorical subsets of entrepreneurial engagement: (1) Proactive entrepreneurs – individuals internally motivated to pursue their own venture development on a full-time basis; (2) Reactive entrepreneurs – individuals working full-time for their own business but are externally motivated i.e. perceive no other viable option; (3) Dependent (part-time) entrepreneurs – individuals not fully committed to developing their own venture and often reliant on a supplemental source for income; (4) Corporate entrepreneurs – individuals engaged in entrepreneurial activities in a firm of which they are not the primary owners; and our comparison group (5) Resolute employees – employed individuals with no preference to engage in entrepreneurial activities. Within this model, we consider psychological differences between two extremes – proactive fulltime entrepreneurs and resolute fulltime employees. (Figure 1).

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Insert Figure 1 about here

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The central question in this study relates to whether there are distinctive differences in the personality, work ethic, and self-efficacy of individuals at the extreme ends of the employment continuum (Proactive FT Entrepreneurs “*Pull Motivate”* at one end and Resolute FT Employees at the other).

**LITERATURE REVIEW AND THEORETICAL FOUNDATIONS**

**Push/Pull Motivation Theory**

Proactive entrepreneurs, the primary focus of this study, are separated from reactive entrepreneurs based on Push/Pull Motivation Theory. Motivation, regardless of it origin, is widely recognized as playing a crucial role in entrepreneurial commitment and performance (cf. Carsrud, et al. 2011; Collins, Hanges, and Locke, 2004; Robichaud, et al. 2001; Stephan, Hart, Mickiewicz, and Drews, 2015; Stewart and Roth 2007) and it should be considered a pivotal variable in theoretical models (Herron and Sapienza, 1992: 49). Push/Pull Motivation theory suggests the act of engaging in entrepreneurial activities is either a positively motivated, enthusiastic action or a reluctant reaction to an environmental situation (Harrison and Hart 1983; Kirkwood 2009; Welter, Baker, Audretsch, and Gartner, 2016). An individual might be *pulled* into entrepreneuring because of the existence of attractive, potentially profitable business opportunities, aspiration to explore a new business idea, desire for independence, or some other positive motivating factor to pursue an independent venture (Stephan, et al., 2015). On the other hand, an individual might feel *pushed* into entrepreneurship because of dissatisfaction with current employment conditions, loss of work opportunities, pressure to assume the family business or some other undesirable situations (cf. Amit and Muller, 1995; Caldwell, Harris, and Renko, 2016; Hopp and Martin, 2017; Poggesi, Mari, and DeVita, 2016; Ratten, 2016; Simon-Moya, Revuelto-Taboada, and Ribeiro-Soriano, 2016; cf. Yitshaki, et al., 2016).

In brief, the evidence suggests that significant differences exist between “push” and “pull” entrepreneurs (Gilad and Levine, 1986; Herron, et al., 1992; Islam, 2012; Yitshaki and Kropp, 2016). “Pull” motivation may be viewed as an intense desire or entrepreneurial passion to pursue an activity (cf. Biraglia and Kadile, 2017) and this positive commitment is particularly pronounced in high-growth entrepreneurs who tend to be “pull” motivated (cf. Bozoki and Richter, 2016; Krueger, 2008: 5).

Positively motivated individuals tend to have a proactive personality (Rauch, et al. 2007; Stephan, Strauss, Wach, and Gorgievski, 2016) and as such, they are relatively unconstrained by situational forces and they are determined to make environmental changes (cf. Batemen and Crant, 1993; Bhoganadam and Rao, 2016; Li, Liang, and Crant, 2010; Seibert, Crant, and Kraimer, 1999). Additionally, the proactive personality-type is considered a proximal antecedent to self-belief as well as self-efficacy (cf. Brown, Kane, Cober, Levy, and Shalhoop, 2006; Li, Liu, Liu, and Wang, 2016), which are attributes that have been positively associated with entrepreneurs (cf. Chen, Greene, and Crick, 1998; Kickul and Gundry, 2002; Renko, Bullough, and Saeed, 2016; Wang, Chang, Yao, and Liang, 2016).

**PERSONALITY, WORK ETHIC, AND ENTREPRENEURIAL SELF-EFFICACY**

**Personality Traits**

Personality is generally defined as the relatively stable and enduring distinguishing aspects of individuals and it can serve as a platform for predicting future behaviors (cf. Hogan and Holland 2003; Leutner, Ahmetoglu, Akhtar, and Chamorro-Premuzic, 2014; McCrae and Costa, 1994; Shiner, 2005). Since the behaviors of proactive entrepreneurs often include risking their personal finances, personal relationships, and alternative career opportunities based primarily on an idea, comparing dimensions of their personalities to resolute employees who occupy the other end of the spectrum may highlight the most salient and enduring differences between entrepreneurs and nonentrepreneurs.

Social psychologists have an intense interest in the predictive potential of personality traits as they attempt to refine information of how personality influences the way individuals perceive and react with the external environment (cf. Antoncic, Kregar, Singh, DeNoble, 2015; Moore, Oesch, and Zietsma, 2007) and work situations (cf. Barrick and Mount, 1991; Goldberg, 1993; Rogers, et al., 2013; Stoeber, Davis, and Townley, 2013). Since personality and behavior motivation always operate together (cf. Locke and Baum, 2007; van Witteloostuijn, Esteve, and Boyne, 2017), it is possible that personality traits offer, at least a partial explanation as to why some individuals are motivated toward self-employment (cf. Antoncic, et al., 2015; Caliendo, Fossen, and Kritikos, 2014; John, Naumann, and Soto, 2008; Rindova, et al., 2009; Zhao, Seibert, and Lumpkin, 2010).

Cataloging human personalities, given the complexity and variety of individual possibilities, is daunting. However, psychologists have crafted five unique clusters of phenotypic personality traits to help explain many behaviors (Gosling, Rentfrow, and Swann, 2003; Hurtz and Donovan, 2000). These are referred to as The Big Five and include: Extraversion, Agreeableness, Conscientiousness, Neuroticism (alternatively Emotional Stability), and Openness to New Experience. This cluster has served as a dais for many entrepreneur/personality studies (cf. Adenuga and Ayodele, 2013: 55; Arshad and Li, 2016; Bajwa, Shahzad, and Aslam, 2017). Unfortunately, while The Big Five trait taxonomy is both a valid and reliable tool with strong psychometric properties for measuring personality (Ciavarella, et al., 2004), its predictive value in terms of entrepreneurial behaviors has had mixed results.

Since individuals who create businesses are believed to possess unique personality traits (cf. Frese and Gielnik, 2014), this study suggests mixed research findings may be the consequence of clustering the many different expressions of entrepreneurship. Therefore, we suggest disentangling these and identifying specific types of entrepreneurial engagement being studied may lead to a broader consensus of findings.

**Work Ethic**

Work ethic is a concept that has evolved from the writings of the early 20th century scholar, Max Weber (Weber, 1904-1905), who has been frequently credited with contributing to the success of capitalism in western society with what became known as the Protestant work ethic (PWE) (Hirschfeld and Field, 2000; Hill and Petty, 1995; Kalberg, 1996; Chusmir and Koberg, 1988). Individuals with a strong work ethic can be identified as those who are dedicated to their work and they demonstrate a determination to perform well. The prominence of work ethic in the lives of individuals has been a prevailing theme in psychological investigations of work behavior (Pryor and Davies, 1989). Work Ethic is defined as commitment to the value and importance of work and is conceptualized as a collection of attitudes and beliefs about work behavior (Buchholz, 1978: 451; Miller, Woehr, and Hudspeth, 2002: 454-455). The existence of differences in work commitment between individuals is commonly agreed upon (Hirschfeld and Field, 2000; Loscocco and Kalleberg, 1988) and these differences are often reflected in work behaviors.

Miller, et al. (2002) identified seven distinct dimensions of work ethic and created a scale to measure each. The dimensions include: (1) work centrality (work is essential to life); (2) self-reliance (autonomy); (3) hard work (doing things well); (4) leisure (there is more to life than work); (5) morality/ethics (being a good human-being); (6) delay of gratification (immediate rewards are not essential); and (7) wasted time (productivity is important). Using the Miller scale to compare the work ethic of multi-generational individuals it was discovered, while there was little difference in the aggregate value assigned to work, there were differences between dimensions (cf. Van Ness, Melinsky, Buff, and Seifert, 2010). These differences suggest intergenerational variations in how work is perceived. Three of these differences have appeared prominently in the literature: Work Centrality wherein, regardless of the challenges, work is desirable (cf. Hirschfeld, et al., 2000; Ucanok and Karabati, 2013); Self-reliance, where a desire for autonomy is a decision-making driver (cf. Bauernschuster, Falck, and Heblich, 2012; Dimov, 2010); Gratification Delay, where deferral of rewards is viewed as a path to achieving future goals (cf. Cardon, Zietsma, Separito, and Matherne, 2005;Reynolds and Schiffbauer, et al., 2005; Ray and Najman, 1985).

**Entrepreneurial Self-Efficacy**

Entrepreneurial Self-Efficacy suggests a “can do” self-belief (Chen, et al., 1998; ; Lee, Wong, Foo, and Leung 2011; Maddux, 2002). Self-perceptions of entrepreneurs are believed to influence their venture creation processes (cf. Mathias and Williams, 2017). Scholars have continuously pursued models or constructs of self-perceptions and personal characteristics that could predict entrepreneurial propensity and the inclusion of self-efficacy may prove advantageous to the quest (Miao, Qian, and Ma 2017). It is considered by some scholars as a crucial component of the decision-making process of individuals considering the establishment of their own business (cf. Chen, et al., 1998; Damayanthi, 2016; Neuman, 2016). Self-efficacy strengthens the job-satisfaction to entrepreneurial intention relationship (Lee, et al. 2011). “Self-efficacy beliefs are knowledge structures that attest to the unique properties of human beings to self-reflect and learn from experience” (Caprara, Vecchione, Alessandri, and Barbaranelli, 2011: 79). It is the strength of belief in one’s ability to successfully complete complex tasks and achieve goals in a specific set of conditions (Adenuga, et al., 2013: 53; Bandura, 1993) and research suggests individuals with this belief are more effective than those who doubt their skills (cf. Caldwell and Hayes, 2016; Maddux, 2002). The belief in one’s ability to access necessary cognitive resources and the motivation to take the necessary courses of action to meet situational needs are crucial to persistence (cf. Adomako, Danso, Uddin, and Damoah, 2016; Chen, Gully, and Eden, 2001) and these individuals are likely to have higher risk and ambiguity tolerances and unlikely to be easily dissuaded (cf. Lauriola and Levin, 2001; Segal, Borgia, and Schoenfeld, 2005).

**HYPOTHESES**

**Extraversion**

Extraversions suggests a highly social and energetic individual who is assertive and has a positive world outlook (Brandstatter, 2011). It represents variables that describe the extent to which individuals are leadership-seeking, ambitious, and often domineering (cf. Judge, Higgins, Thoresen, and Barrick, 1999). Extraversion has been found to be a significant predictor of entrepreneurial intention (Ismail, Khalid, Othman, Jusoff, Rahman, Kassim, and Zain, 2009; Zain, Akram, and Ghani, 2010) and it has been linked to “increasing probability of entry into self-employment and into entrepreneurial activities” (Caliendo, et al., 2014: 790). This personality trait has been shown to be not only positively associated with an interest in entrepreneurship but also with entrepreneurial success (Schmitt-Rodermund, 2004: 502).

**H-1)** Proactive FT entrepreneurs will have higher levels of extraversion when compared to Resolute employees.

**Agreeableness**

Agreeableness is generally associated with individuals who are passive, dependent, and traditional (Brice, 2004). Individuals who are high on the agreeableness scale tend to be forgiving, trusting, altruistic, and flexible (Caliendo, et al., 2014). Individuals who demonstrate high agreeableness may find it difficult to bargain and are more likely to suffer from bargaining disadvantages (Zhao and Seibert, 2006). Further, Brice (2004) found a negative correlation between agreeableness and entrepreneurship and Leutner, et al. (2014) concluded that agreeableness is negatively associated with Invention Entrepreneurship (Leutner, et al., (2014) which is, presumably, a characteristic associated with independent thinking and the determination to blaze a new entrepreneurial trail.

However, a meta-analytic study by Zhao, Seibert, and Lumpkin, (2010) revealed no relationship, positive or negative, between entrepreneurial engagement and agreeableness. Additionally, a study among undergraduate students, found no correlation between agreeableness and entrepreneurial intention (Ismail, et al., 2009:58). In summary, collectively these studies suggest that agreeableness is not positively associated with entrepreneurs or entrepreneurial behaviors.

**H-2)** Proactive FT entrepreneurs will have lower levels of agreeableness when compared to Resolute employees.

**Neuroticism (antithesis of Emotional Stability/Self-Confidence)**

An individual who is emotionally stable, self-confident, and relatively risk tolerant is considered to be low on the neuroticism scale. Emotional stability/self-confidence are likely to be associated with entrepreneurial behaviors (cf. Asoni 2011; Baron, Hmieleski, and Henry, 2012; Costa and McCrae, 1992; De Jorge Moreno, Castillo, and Masere, 2007; National University of Salta , Salta, Argentina Douglas and Shepherd 1999; John and Srivastava 1999; Tajeddini and Mueller, 2009). High neuroticism suggests low self-confidence and it is associated with feelings of anxiety, depression, vulnerability, susceptibility, and tenseness (cf. Arslan, 2016; Costa, et al., 1992). Individuals with higher levels of neuroticism lack confidence and are risk averse (cf. Burns, Burns, and Ward, 2016; John, et al., 1999). Risk aversion is a personality attribute that reflects an individual’s cumulative tendency for avoiding preventable gambles (Hung and Tangpong, 2010) which would likely preclude the individual from becoming a proactive FT entrepreneur. In other words, since neuroticism is positively associated with risk avoidance it is not a characteristic associated with entrepreneurs who tend to reflect high risk tolerance, (cf. Kallinen, 2016; Zhao, et al., 2010).

Risk tolerance suggests self-confidence, which has been concomitant with both favorable work results and an optimistic belief in the likelihood of desirable outcomes for expended efforts (cf. Ng, Sorensen, and Eby, 2006). Further, even the perception of risk magnitude has been found to be significantly lower for individuals with emotions associated with confidence, certainty, and control (cf. Foo, 2011: 385; Wong and Carducci, 2016). Additionally, confidence and risk tolerance are attributes which are positively associated with entity entrance (cf. Asoni, 2011; Costa, et al., 1992; Rogers, et al., 2013; Zhang and Arvey, 2009) and entrepreneurs are considered to be optimistic, hardy, confident, and capable of handling stressful situations (cf. Baron, 2008; Baron, Franklin, and Hmieleski, 2013; Costa, et al., 1992; Locke, et al., 2007), strongly suggesting a negative association with Neuroticism.

**H-3)** Since neuroticism suggests the lack of self-confidence, it is hypothesized that proactive FT entrepreneurs will have significantly lower levels of neuroticism when compared to Resolute employees.

**Conscientiousness**

Conscientiousness is a dimension of personality that refers to an individual’s degree of tenacity, work motivation, self-control, and level of achievement (Costa, McCrae and Dye, 1991; Costa, et al., 1992; Gellatly, 1996). Conscientiousness, along with the traits of persistence and focus, are considered pivotal to successful entrepreneurial efforts (Baum, et al., 2004; Markman and Baron, 2003) and empirical evidence tends to confirm high levels of conscientiousness are allied with venture success and longevity (cf. Ciaverella, et al., 2004; Adenuga, et al., 2013).

Conscientious individuals demonstrate tenacity when facing new challenges and complexities and they are more likely to persevere and succeed with their efforts than individuals without these characteristics (cf. Gatewood, Shaver, and Gartner, 1995). Further, high levels of conscientiousness is believed to be a potent predictor of both entrepreneurial-oriented behavior (Adenuga, et al., 2013: 55) and managing proficiency (Barrick, et al., 1991). In summary, the literature suggests that entrepreneurs who are strongly committed to their entrepreneurial activity will reflect higher levels of conscientiousness (Zhao, et al., 2010).

**H-4)** Proactive FT entrepreneurs will have higher levels of conscientiousness when compared to Resolute employees.

**Openness to New Experiences**

Openness is a dimension of personality that relates to traits such as curiosity, broadmindedness, originality, and the depth of an individual’s reasoning. This represents individuals who are willing to take chances and pursue novel ideas (Brice, 2004). It suggests the degree of resourcefulness, innovativeness, and/or imagination and it plays an important role in entrepreneurial enterprises (Marcati, Guido, and Peluso, 2008) and it is linked to innovativeness (Rauch and Frese, 2007; Zang and Huang, 2001). The qualities associated with the trait openness are particularly relevant to entrepreneurs who enthusiastically embrace the opportunity to development and manage their own business on a full-time basis (cf. Ismail, Khalid, Othman, Jusoff, 2009; Zhao and Seibert, 2006). Since some studies suggest that Openness to experiences appears to represent a higher correlation with entrepreneurial intentions and performance than the other Big Five dimensions (cf. Brandstatter, 2011; Zhao, et al., 2010) it is theorized to be a key characteristic of Proactive FT entrepreneurs.

**H-5)** Proactive FT entrepreneurs will have higher levels of openness to new experiences when compared to Resolute employees.

**Work Centrality**

Work centrality is a characteristic most often associated with individuals who have a passionate involvement in and receive extraordinary gratification from work and it represents the extent to which they identify with work (cf. Hirschfeld and Field, 2000). High-stakes, proactive entrepreneurs who risk their own finances, career time, and professional reputation in attempts to establish, develop, and/or expand an enterprise, are expected to be strongly associated with this characteristic. The magnitude of risks embraced by these individuals suggests a central focus and intense commitment to their ventures. In some entrepreneurs, the intense work centrality may even provide the appearance of workaholism, which Ng, Sorensen, and Feldman (2007) describe as a behavior of individuals with an unusually strong internal focus on work. This intense internal drive and high work centrality has been hypothesized to lead to positive performance in demanding jobs and it is generally accompanied by high job satisfaction with minimal interest in non-work activities (Harpaz and Snir, 2003).

There is a linkage between high achievement orientation and work centrality (cf. Scott, Moore, and Miceli, 1997) and this is positively associated with entrepreneurial behaviors (Okhomina, 2010; Utsch, and Rauch, 2000). Entrepreneurs must persistently and continuously work to enhance their performance while coping with challenging new tasks, (Utsch, et al., 2000: 47) and without work centrality, entrepreneurial survival could be threatened. The intensity of the relationship between work centrality and an achievement orientation may be demonstrated by the many risks some entrepreneurs assume and the commitment they must make in order to sustain their business enterprise (cf. Hirschfeld, et al., 2000). Additionally, if entrepreneurs view their enterprise as important dimensions of their personal identity, they will be further incentivized to intensify their work commitment (cf. Mohrman and Cohen, 1995).

**H-6)** FT proactive entrepreneurs will have higher levels of work centrality when compared to Resolute employees.

**Self-Reliance**

Research suggests that self-reliance is an important characteristic of entrepreneurs since the lack of it is negatively associated with entrepreneurial engagement (cf. Bauernschuster, et al., 2012: 492; Tipu and Ryan, 2016). First generation business owners demonstrate this characteristic along with a combination of their strong work-ethic and their greater risk-tolerance (cf. Ang, 1991; Kamaruddin, Othman, Hassan, Zaki, and Sum, 2016); they are individuals who stalwartly believe in their ability to succeed (cf. Moreno, Castillo, and Masere, 2007). This self-belief and willingness to be self-reliant is particularly evident when the venture opportunity is aligned with the realm of their interests (cf. Dimov, 2010). Self-reliant individuals tend to believe they have a sense of control over the outcome of events in their lives, as opposed to external forces beyond their control. It is the perception of “self” being responsible for successes and failures. In other words, the attribution of causality between outcomes and one’s own decisions by self-reliant individuals represents a perception of locus of control. And, this belief has been found to be particularly relevant in continuance of business startups (Kroeck, Bullough, and Reynolds, 2010).

Self-reliant individuals have an elevated aspiration for autonomy (cf. Komissarouk, Harpaz, and Nadler, 2017; Rindova, et al., 2009). They reflect an overall independence orientation by relying on their own resources, judgment, and capabilities (Bauernscheuster, et al., 2012; DeCarlo and Lyons, 1979; Litzinger, 1965). In other words, they are willing to tolerate the risks of setting their own objectives and pursuing their own plans of action to accomplish these objectives (cf. Bauernschuster, et al., 2012). They have the “fire of desire” or passion (cf. Cardon, Wincent, Singh, and Drnovsek, 2009) and entrepreneurial passion is important personal characteristic fueling entrepreneurial efforts (Gielnik, Spitzmuller, Schmitt, Klemann, and Frese, 2015). Lastly, the desire to be self-reliant has been shown to have a beneficial impact on network building which is crucial to entrepreneurial activities (cf. Kuwabara, Hildegrand, and Zou, 2016; Lee and Tsang 2001).

**H-7)** FT proactive entrepreneurs will have higher levels of self-reliance when compared to Resolute employees.

**Gratification delay**

Gratification delay is the ability to forgo short-term rewards in order to gain some future benefit (Joy and Witt, 1992). It is a sign of strength in maintaining a course of action in order to accomplish a long-term goal, even when there are appealing alternatives that offer short-term gains (Reynolds, et al., 2005). The ability to delay gratification is considered an important characteristic of entrepreneurs as they often sacrifice a great deal and are faced with a series of challenges and complexities in establishing and/or growing their organization (Baum, et al., 2004; Markman, et al., 2003).

Entrepreneurs may need to work long hours, sometimes for weeks or years before achieving objectives (Van Ness, et al., 2016). The willingness to delay gratification is thought to be reinforced by a passion for one’s work and it is perceived as a core characteristic of entrepreneurs (Baum, et al., 2004: 590). It is therefore expected that high-stakes, proactive entrepreneurs will be more likely to concentrate on achieving long-term goals while assigning a lesser importance to short-term rewards.

**H-8)** FT proactive entrepreneurs will have higher levels of gratification delay when compared to Resolute employees.

**Entrepreneurial Self-efficacy**

Self-efficacy promotes learning and learning contributes to achievements (cf. Bandura 1993; Meissel and Rubie-Davies 2015; Zhao, Weibert, and Hills, 2005), which may explain why some entrepreneurs have confidence in their ability to successfully complete almost any task within the domain of their venture (cf. Moore, et al., 2007). Additionally, confidence factors also have positive synergistic influences on motivation and work commitment (cf. Dimov, 2010; Krueger and Brazeal, 1994; Moreno, et al., 2007).

**H-9)** Proactive FT entrepreneurs will have higher levels of Entrepreneurial Self-Efficacy when compared to Resolute employees.

**Methodology and Measures:**

Our sample is very broad in scope, comprised of individuals from a variety of industries and organizational settings throughout the United States. These individuals were randomly invited to participate in this study based upon prominent online and print professional listings. Invitations were individually emailed, accompanied by a brief explanation of the purpose of the study, an assurance of confidentiality, and a link to the web-based questionnaire. Approximately 1,256 invitations were emailed. Three-hundred five individuals accessed the questionnaire and two-hundred seventy-five usable questionnaires were completed (42 females and 233 males), resulting in an overall 24.2 percent response rate and a 21.9 percent completion rate.

Several variables were considered within our study to help ascertain key psychological differences operating within and distinguishing between proactive entrepreneurs and resolute employees including: (1) Personality traits, including extraversion, agreeableness, emotional stability, conscientiousness, and openness to experience were measured using a 5-point Likert scale adapted from Donnellan, Oswald, Baird, and Lucas, (2006), (2) Work traits including work centrality, self-reliance, attitude toward hard work, leisure orientation, morality/ethics, delay of gratification, and productivity orientation; were measured using a 5-point Likert scale adapted from Meriac, Woehr, Gorman, and Thomas (2013), and (3) Entrepreneurial self-efficacy was measured using a 5-point Likert scale adapted from Chen, Greene, and Crick, (1998).

RESULTS

The correlations between the variables can be found in Table 1. None of the correlations are greater than 0.40 although over half of the relationships are statistically significant. The relatively low correlations provide support that the respondents were able to distinguish between the different dimensions assessed in the survey. The means and standard deviations for all variables, by entrepreneurial type, can be found in Table 2.

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Insert Tables 1 & 2 about here

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A Multivariate Analysis of Variance (MANOVA) with post hoc analyses were used to assess the main hypotheses. The results of the analysis can be found in Table 3. There was a statistically significant and large overall effect of employment type (proactive entrepreneur vs. resolute employee) (F (7, 263) = 3.17, p < .001) in explaining variation in the dependent personal characteristic variables, as a whole. An Eta2of .14 also indicates a large overall effect (Miles and Shevlin, 2001) of entrepreneur type in accounting for differences in measured personal characteristics. . Additional post hoc individual univariate F-tests were completed to assess which personal characteristics among the overall group appeared to have the most effect. As shown in Table 3, four personal characteristics, openness to experiences, work centrality, self-reliance, and entrepreneurial self-efficacy, appear to have the most influence. Of these four, entrepreneurial self-efficacy and openness to experiences exhibited higher partial Eta2 effects. In addition, all were statistically significant and as such also provide support for hypotheses 3, 4, 5, and 7. The results did not provide support for hypotheses 1 (extroversion) or 2 (agreeableness). The other factors (neuroticism, conscientiousness, and delay of gratification) were not statistically significant and therefore suggesting an unlikely explanatory effect. Therefore, hypotheses 1, 2, and 6 were not supported.

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Insert Table 3 about here

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**DISCUSSION**

Building upon research developed over several decades, in this paper, we made a case for segmenting entrepreneurs into different categories as an effective way to identify and explain individual differences between entrepreneurs. We propose a model that initially divides entrepreneurs into “independent”, “dependent,” and corporate (intra-firm). Independent entrepreneurs, those who are making a fulltime commitment to their venture, are further divided based on Push/Pull Motivation theory. We then proposed and empirically tested differences in personal characteristics between, one type of entrepreneur, Pull-motivated entrepreneurs referred to as Proactive FT Entrepreneurs and non-entrepreneurs, referred to as Resolute FT Employees. By controlling for variance in entrepreneurial activity and motivation/preference for being an entrepreneur across different entrepreneurial types, we show there are significant differences between Proactive FT Entrepreneurs and Resolute FT Employees. Although there have been studies showing various individual differences between entrepreneurs and non-entrepreneurs, as far as we can determine, this is the first study to delineate entrepreneurs in this fashion. In so doing, we were able to isolate Proactive FT Entrepreneurs and discover they had significantly higher openness, centrality of work, self-reliance, and entrepreneurial self-efficacy compared to Resolute FT Employees (non-entrepreneurs).

We suggest the reason for the mixed results of some earlier studies of definitive personal characteristics may be related to investigating entrepreneurs as a homogenous group when there appear to be multiple groups of different types of entrepreneurs. We believe the proposed delineation herein proposed, is a contribution because it has important implications for both practice and theory. For practice it can serve as a basis for predicting individuals who are most likely to embrace and enthusiastically devote their full energy and attention to venture creation. More information about these individuals is particularly important to communities after periods of economic downturns since entrepreneurs are often the key to revitalizing economic activity (Lyons, Alter, Audretsch, and Augustine, 2012). For theory, we establish a basis for differentiating among different types of entrepreneurs which is objectively definable. This creates the opportunity for greater consistency in cross-study appraisals i.e. different studies using this typology may have stronger comparability qualities.

Our results showed that proactive FT entrepreneurs did differ significantly in four characteristics: openness to new experience, work centrality, self-reliance, and entrepreneurial self-efficacy. Proactive entrepreneurs (mean=4.0, SE=.10) were significantly more open to experiences (mean difference=.36, p<.05) than resolute employees (mean=3.64, SE=.12). Upon reflection these results are consistent with the push-pull motivation theory. As we noted earlier in the paper, proactive entrepreneurs are pulled or attracted to entrepreneurial activities suggesting the desire for, or openness to, exploring new business opportunities. These individuals revealed significantly stronger work centrality, self-reliance, and had a can-do belief related to entrepreneurial self-efficacy which understandable since they risk their own finances, career time, personal relationships, and professional reputation to establish, develop, and/or expand business ventures, which suggests an intense commitment to their business ventures.

We speculate that work centrality is a crucial component of entrepreneurial persistence while self-reliance may be both an antecedent and a consequence of entrepreneurial engagement. Entrepreneurial self-efficacy may provide the engagement confidence since it is related to the strength of an individual’s belief that he or she is capable of successfully performing the roles and tasks of an entrepreneur (Boyd and Vozikis, 1994). Although our study revealed the importance of self-efficacy in entrepreneurial engagement, we cannot say whether the sense of entrepreneurial efficacy existed prior to being an entrepreneur or develops after having positive experiences as an entrepreneur. This question represents an interesting avenue for future research.

Our study revealed some unexpected null results. Consistent with empirical evidence from earlier research on the personal characteristics of entrepreneurs, we expected to find Proactive FT Entrepreneurs to report significantly higher levels of emotional stability (*lower neuroticism*), conscientiousness, and the ability to delay gratification. We found no support for these hypotheses. Although our results were in the predicted direction with Proactive FT Entrepreneurs’ reporting lower neuroticism on average than resolute employees, given the close association in the literature between neuroticism and anxiousness about taking risks, we expected to find a significant difference. In addition, Proactive FT Entrepreneurs were presumed to be very conscientious about their businesses given the fact they have so much at stake, yet we did not find this to be a differentiating characteristic. Further, they often have to sacrifice personal time to work long hours in their businesses, presumably demonstrating their ability to delay gratification, however we did not find significant differences between Proactive FT Entrepreneurs and non-entrepreneurs in this area. Further research in area my resolve this conundrum.

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Insert Figure 2 about here

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**Conclusion**

In this broad, exploratory study, we consider an important question within the literature that is being increasingly investigated and examine key differences among individuals’ characteristics and traits across Proactive FT Entrepreneurs and Resolute FT Employees. This study is motivated by the potential to observe what key psychological differences may be manifest among individuals that proactively pursue entrepreneurial activities, across different contexts and constraints, and those who choose to remain resolute employees. We employ Push/Pull Motivation Theory to understand individual’s entrepreneurial behavioral choices when considering different types and capacities of entrepreneurial activity within our model and observe that classically proactive entrepreneurs differ significantly in terms of four psychological characteristics when compared to their non-entrepreneurial counterparts: openness to new experience, work centrality, self-reliance, and entrepreneurial self-efficacy. We hope that our model and findings will assist other scholars interested in investigating the psychological characteristics of proactive entrepreneurs.

The key contributions of this study are two-fold. First, our enterprise professional typology and the tetrad of entrepreneurs creates a durable framework that enables the assessment of unique personal characteristics that are closely associated with discrete homogeneous groups of entrepreneurs. It also represents a universally recognizable and objective (observable) division of enterprise professional roles and, each category is sufficiently general to encompass variations in business types. Our second contribution is then identifying important differentiating personal characteristics of entrepreneurs who are positively motivated to risk their own finances, personal relationships, and professional reputation, and career options in the full-time management of their own enterprise. Nurturing and reinforcing these characteristics may not only assist these unique entrepreneurs but also contribute to the strength and vibrancy of communities. Proactive FT Entrepreneurs are not likely to give up when face with adversity nor are they likely to pursue non-entrepreneurial opportunities that might become available. Our research can also contribute to the academic community by providing a focus point for future scholarly studies interested in examining circumstances surrounding entrepreneurs who enthusiastically take great risks in pursuit of their entrepreneurial aspirations.

It is our hope and belief that our findings will benefit community leaders interested in supporting these unique individuals as contributors to economic development as well as lending institutions interested in providing funds to highly focused and determined entrepreneurs. Additionally, we hope our empirical findings assist colleges and universities interested in fine-tuning entrepreneurial programs as well as scholars interested in this dimension of entrepreneurship research.

**Limitations and Future Research**

This study must be interpreted in the context of three limitations. First, the data we collected on enterprise professionals and entrepreneurs is self-reported data. Although we followed recommendations of Podsakoff, P. M., MacKenzie, S. B., Lee, J., and Podsakoff, (2003) to reduce the potential for self-report bias operating in the relationships we find, we cannot say definitively these biases do not operate. In designing our survey we used different measurement anchors for our Likert measures of different constructs. A second limitation is the small size of our sample. To maximize variability we compared only one type of entrepreneur to non-entrepreneurs. Since our study was primarily focused on entrepreneurs we oversampled entrepreneurs. Consequently, we only had a small sample of resolute employees (non-entrepreneurs). Small samples limit generalizability and also power to detect relationships, which are limitations. However, given the strength of our findings in the context of a small sample, we believe that with larger samples, the relations would be more pronounced and therefore not such a serious problem. Finally, our data are cross sectional and thus carry the usual caveat against our ability to make causal claims.

We also suggest expanding our work by investigations of planning processes of these Proactive FT Entrepreneurs, with particular attention to marketing and financial issues. These have been found to be the Achilles heel of many business plans. This may be a particularly important point of interest to governmental agencies and educational institutions since assistance in these areas may improve a firm’s chances of survival and successful growth (cf. Solomon, Bryant, May, and Perry, 2013). Lastly, since a large number of entrepreneurs tend to fail on their first try, it is important to gain a greater understanding of why some entrepreneurs box themselves into a process without an extrication strategy, while others are more cautious as they pursue their entrepreneurial objectives with the same energy and determination (cf. McMullen and Kier 2016).

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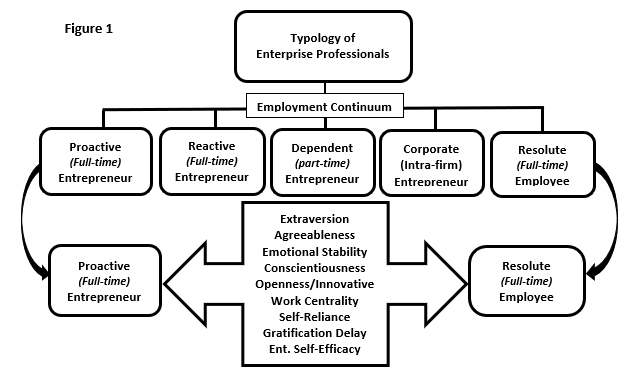


Figure 2

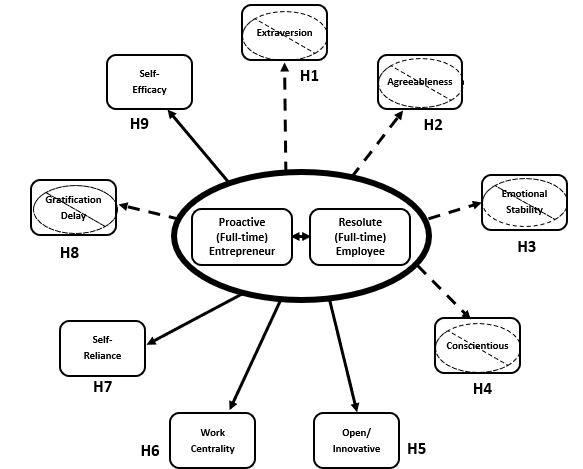


Table 1: Correlation Matrix

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| 1. Ent. Self-Efficacy | 1.00 |  |  |  |  |  |  |
| 1. Conscientiousness | 0.24\*\* | 1.00 |  |  |  |  |  |
| 1. Neuroticism | -0.16\* | -0.01 | 1.00 |  |  |  |  |
| 1. Openness | 0.23\*\* | -0.04 | -0.06 | 1.00 |  |  |  |
| 1. Self-Reliance | 0.17\*\* | 0.17\* | 0.01 | 0.02 | 1.00 |  |  |
| 1. Centrality of Work | 0..24\*\* | 0.31\*\* | -0.06 | 0.10 | 0.20\*\* | 1.00 |  |
| 1. Delay of Gratification | 0.08 | 0.10 | 0.04 | -0.04 | 0.18\*\* | 0.24\*\* | 1.00 |

\* p <. 05  
\*\* p < .01

Table 2: Means and Standard Deviations

|  |  |  |
| --- | --- | --- |
|  | **Employment Status** | |
|  | **Proactive Entrepreneurs** | **Non-Entrepreneurs** |
| **Factor** | **(n = 175)** | **(n = 95)** |
| Entr. Self-Efficacy | 3.74 (0.56) | 3.48 (0.60) |
| Conscientiousness | 3.97 (0.65) | 3.94 (0.65) |
| Neuroticism | 2.63 (0.78) | 2.53 (0.76) |
| Openness | 4.12 (0.67) | 3.78 (0.71) |
| Self-Reliance | 3.83 (0.75) | 3.58 (0.77) |
| Centrality of Work | 4.37 (0.52) | 4.17 (0.55) |
| Delay of Gratification | 3.17 (0.80) | 3.18 (0.62) |

Standard deviation in parentheses.

Table 3: MANOVA Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IV Name** | **DV Name** | **Wilk’s Lambda**  **Value (F)** | **Univariate (F)** | **Eta2** |
| Employment Status |  | 3.19\*\*\* |  | 0.14 |
|  | Entr. Self-Efficacy |  | 12.94\*\*\* | 0.05 |
|  | Conscientiousness |  | 0.08 | 0.00 |
|  | Neuroticism |  | 1.07 | 0.00 |
|  | Openness |  | 15.28\*\* | 0.05 |
|  | Self-Reliance |  | 6.86\*\* | 0.03 |
|  | Centrality of Work |  | 9.11\*\* | 0.03 |
|  | Delay of Gratification |  | 0.01 | 0.00 |

\* p <. 05  
\*\* p < .01

\*\*\* p < .001