

THE NATURE AND EXPERIENCE OF ENTREPRENEURIAL PASSION

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Entrepreneurial passion plays an important role in entrepreneurship, but theoretical understanding of what it is and what it does is lacking. We build on fragmented and disparate extant work to conceptualize the nature of entrepreneurial passion associated with salient entrepreneurial role identities. We also theorize the mechanisms of the experience of entrepreneurial passion that provide coherence to goal-directed cognitions and behaviors during the pursuit of entrepreneurial effectiveness.

Passion is deeply embedded in the folklore and practice of entrepreneurship. Dating back to Schumpeter's early writings (1951), researchers and practitioners alike have invoked passion to explain entrepreneurial behaviors that defy reason-based explanations, such as unconventional risk taking, uncommon intensity of focus, and unwavering belief in a dream. In the popular press, successful entrepreneurs have stressed the power of passion: Anita Roddick of the Bodyshop asserted that "to succeed you have to believe in something with such a passion that it becomes a reality," and Michael Dell suggested that "passion should be the fire that drives your life's work."¹ Many academics concur, including Bird, who says that entrepreneurial behavior can be "passionate, full of emotional energy, drive, and spirit" (1989: 7-8). Cardon, Zietsma, Saporito, Matherne, and Davis

suggest that entrepreneurship can be thought of as a "tale of passion" (2005: 23), and Smilor goes so far as to say that passion is "perhaps the most observed phenomenon of the entrepreneurial process" (1997: 342).

Despite the widespread fascination with entrepreneurial passion, it has not been studied systematically, and existing research is fragmented. Moreover, while emphasizing that passion is important for entrepreneurship, most studies neither adequately define entrepreneurial passion nor explain its role in the entrepreneurial process and its outcomes. We aim to fill this gap by developing a definition of the nature of entrepreneurial passion and theorizing about the experience of entrepreneurial passion to offer predictions about its influence in the entrepreneurial process.

Specifically, we first address *what passion is* by proposing a definition of the entrepreneurial passion concept based on psychological research on emotions (Barrett, Mesquita, Ochsner, & Gross, 2007; Russell, 2003) and on identity (Burke, 2006; Stryker & Burke, 2000), as well as grounded work in entrepreneurship. Second, we address *what passion does* by proposing a conceptual framework to theorize the mechanisms that coordinate the influence of role-identity-specific passion on entrepreneurs' cognitions

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¹ We accessed these quotes at <http://www.evancarmichael.com>.

and behaviors in the pursuit of entrepreneurial effectiveness. We assert that the proposed framework can help explain previously unanswered questions in the literature, such as why some nascent entrepreneurs who evidence high passion for entrepreneuring lose the fire of passion as the venture grows while others continue to experience the fire of passion throughout their entrepreneurial career; why some entrepreneurs who seem passionate about their ideas are willing to give them up to others to grow the venture and extract its market value; and why some entrepreneurs continue to persist despite considerable obstacles and impediments during the process of entrepreneuring. We use self-regulation as an overall theoretical framework to extract empirically testable propositions.

PASSION IN ENTREPRENEURSHIP: REVIEW AND RELEVANCE

Table 1 summarizes the literature on passion and related emotions in entrepreneurship. We include studies that focus on individual entrepreneurs who found new (*de novo*) ventures and/or pursue opportunity recognition, venture creation, or venture growth activities. Consistent with Baron (2008), we focus on entrepreneurs who individually recognize and exploit opportunities rather than do so as part of a team.

While past research is fragmented in its conceptualization and theoretical development, it is coherent in its recognition of the relevance of passion in entrepreneurship. Table 1 suggests three themes of convergence: (1) the content of "passion" is an intense positive emotion (2) whose empirical referents or objects usually involve venture-related opportunities, tasks, or activities and (3) that has a motivational effect that stimulates entrepreneurs to overcome obstacles and remain engaged. However, this review also identifies several gaps and open issues, including lack of a clear definition of entrepreneurial passion that is theoretically grounded, agreement over whether passion is a personal trait or is stimulated by an object or the context, and a conceptual model that explains how passion influences entrepreneurial outcomes. We briefly review the preceding themes of convergence and gaps to motivate our study.

Our review indicates that scholars view passion as important but are unclear on what it

actually is. Studies define or associate passion with a diverse range of positive affects, including pride (Bierly, Kessler, & Christensen, 2000), love (Baum & Locke, 2004; Cardon et al., 2005), enthusiasm, and joy (Smilor, 1997) that occur as part of the entrepreneuring process and provide an emotional resource for coping with entrepreneurial challenges. While Schumpeter long recognized that an entrepreneur needs unusually strong will and personal strength during the process of creation, which "is inherently emotional" (Goss, 2005: 209), few studies to date have provided an original theoretical foundation for linking entrepreneurial passion to the broader literature on affect and emotional experiences.

The current literature is also vague in identifying the object of entrepreneurial passion and includes ventures, opportunities, products, tasks, or, generally, "one's work" (see Table 1). This suggests an implicit relevance of addressing what entrepreneurs are passionate about, but there is no agreement on which specific referents should be considered. Moreover, some studies treat passion as an individual trait, giving less emphasis to the specific objects involved (e.g., Baum, Locke, & Smith, 2001). Others argue that both the individual and the venture must be considered given that entrepreneurs invest themselves (e.g., in terms of time, money, and energy) heavily in their ventures (Cardon et al., 2005). Thus, the centrality of venture-related objects appears evident in conceptualizing entrepreneurial passion, but supporting theoretical work is lacking.

Table 1 indicates that the literature is also unclear about the mechanisms for how passion influences outcomes. Scholars suggest that entrepreneurs who experience passion benefit from its motivational energy. For example, Table 1 indicates that passion involves strength and courage (Bierly et al., 2000), mobilizing energy (Brännback, Carsrud, Elfving, & Krueger, 2006), and unflagging pursuit of challenging goals (Smilor, 1997). Passion has been related to drive, tenacity, willingness to work long hours, courage, high levels of initiative, and persistence in the face of obstacles (Bierly et al., 2000; Bird, 1989). Brännback et al. note that "passion can fuel motivation, enhance mental activity, and provide meaning to everyday work" (2006: 3). Likewise, scholars suggest that highly activated and positive emotional states such as passion foster creativity and recognition of new

TABLE 1
A Review of Literature Focusing on Affect and Passion in Entrepreneurship

Authors	Construct	Construct Conceptualization	Object of Affect	Type of Research	Findings and Implications
Baron (2008)	Affect	Feelings, moods, and emotions	Situational events or stable tendencies of person	Conceptual	Affect influences many aspects of entrepreneurial cognition and behavior and is important for opportunity recognition and resource acquisition. The effects of affect on the entrepreneurial process could be direct, indirect, or moderated.
Baron & Hamman (2002)	Love/passion	A sense of personal belonging and identification with the company	Venture	Empirical	Founders who emphasize "love" as a basis for attachment of employees to the organization bring in HR expertise earlier and have the lowest likelihood of organizational failure.
Baron & Ward (2004)	Emotional valence and arousal	The extent to which emotions are pleasant/unpleasant and intense	Opportunities	Conceptual	Affect may help entrepreneurs find complex patterns to pursue opportunities. Entrepreneurs may experience more positive emotions than do other people when exposed to excellent opportunities.
Baum & Locke (2004)	Passion	A genuine love of work; emotions of love, attachment, and longing	One's work	Empirical	Passion has an indirect effect on venture growth, mediated by communicated vision, goals, and self-efficacy.
Baum, Locke, & Smith (2001)	Passion	A trait of entrepreneurs	One's work	Empirical	Passion has an indirect effect on venture growth, mediated by competency, motivation, and competitive strategy.
Bierly, Kessler, & Christensen (2000)	Passion	The drive to overcome personal, social, and institutional barriers to implement the "right" strategy	One's work	Conceptual	Passion increases the belief that one's work is meaningful and is associated with pride, commitment, empowerment, and energy. Passion is linked to motivation and can facilitate innovation.
Bird (1989)	Passion	Emotional energy, drive, and spirit	Venture	Empirical—interview data	Passion drives entrepreneurs' persistence and tenacity. Passion leads entrepreneurs to experience their ventures' successes and difficulties as personal events. Vision and passion together sustain optimism in the face of setbacks and mobilize others' beliefs and energy.
Brännback, Carsrud, Elfving, & Krueger (2006)	Passion	An emotional and energizing component	Favorite hobby or activity	Empirical	Passion may be important to develop start-up intentions and for the process of exploring an opportunity. There were problems finding direct effects from a scale used to capture passion for hobbies. The influence of passion is complicated and needs further elaboration.
Branzei & Zietsma (2003)	Passion and love	No clear definition provided	Opportunities	Conceptual	Passion and love involve positive illusions, which may lead to cognitive biases and greater opportunity exploitation.
Cardon (2008)	Passion	An enduring feeling that is likely to be highly intense and positively valent	Venture or venture-related objects	Conceptual	Passion promotes transformational leadership and emotional display, which influence employee passion and engagement.
Cardon, Zietsma, Saporito, Matherne, & Davis (2005)	Passion	Attachment and identification of entrepreneurs with their ventures	Venture	Conceptual	Passion leads to harder work with greater effort, persistence, and enthusiasm. Passion leads to intense identification with the venture, but this may not necessarily be functional.
Chen, Yao, & Koha (2009)	Passion	Attitude held by the entrepreneur indicating devotion and enthusiasm for a proposed business venture	Venture	Empirical	An entrepreneur's cognitive passion has a significant positive effect on venture capitalists' funding decisions, while the effect of affective passion is nonsignificant.

(Continued)

TABLE 1
(Continued)

Authors	Construct	Construct Conceptualization	Object of Affect	Type of Research	Findings and Implications
Cross & Travaglione (2003)	Emotional intelligence	Appraisal and expression of emotion; regulation and utilization of emotion	No specific focus identified	Empirical—interview data	Entrepreneurs were found to show "extremely high levels" of appraisal, expression, regulation, and utilization of emotions, including for problem solving and persistence on tasks.
Filion (1991)	Energy	The time and intensity allocated to entrepreneurial activities	Work	Empirical	Energy has reciprocal effects on an entrepreneur's <i>Weltschauung</i> —the prism for observation and sensemaking. Working long hours is not enough; intensity is also required.
Huy & Zott (2007)	Emotion regulation	Entrepreneurs' actions to elicit, modify, or maintain desired emotional states (usually pleasant, high-activation emotion)	Stakeholders	Empirical	Successful entrepreneurs are adept at displaying passion and enthusiasm to others, as well as low-activation positive emotion to convey self-control. This increases investors' confidence in the business and helps mobilize employees' efforts.
Ma & Tan (2006)	Passion	Desire to create something insanely great, exert undeniable impact on society, and make history	No specific focus identified	Conceptual	Entrepreneurship is the embodiment of passion. It makes entrepreneurs believe in what they are doing, which is important for realizing their entrepreneurial dreams and achieving success against all odds.
Mumieks & Moszkowski (2006)	Passion	An intense longing related to salient role identity	Activities	Conceptual	Passion emerges when the entrepreneurial identity is salient. Passion helps entrepreneurs cope with negative experiences.
Shane, Locke, & Collins (2003)	Passion	Selfish love of work	Work	Conceptual	Passion can facilitate opportunity recognition, idea development, and opportunity execution (resource assembly, organizational design, market making, and product development).
Smilor (1997)	Passion	Enthusiasm, joy, and zeal; persistent desire to succeed	Venture	Conceptual	Passion comes from that energetic and unflagging pursuit of a worthy, challenging, and uplifting purpose. It emerges when one has freedom and opportunity to pursue one's dream.
Souitaris, Zerbinati, & Al-Laham (2007)	Inspiration	The infusion of some idea or purpose into the mind, and the awakening or creation of some feeling of impulse	Activity from a start-up program	Empirical	Inspiration comes from the emotional chemistry between individuals and particular opportunities, which affects their decision to exploit matters beyond the rational models presented in previous entrepreneurship research.
Sundararajan & Peters (2007)	Positive emotion	Positive (and negative) emotions are defined by combinations of emotion prototypes sorted by various degrees of pleasure and activation	Opportunities	Conceptual	Positive emotion is triggered by a match between entrepreneurial motives and ideas. Self-efficacy and prior knowledge moderate emotional experience.
Wimpen (2005)	Passion and emotional intelligence	Passion is an emotion; passion is the motivating force in entrepreneurship	Venture start-up, success, work tasks, product	Empirical	Passion is an emotion that influences opportunity recognition, mission, vision, decision, persistence, and the planning process when engaged in new venturing. The focus of passion differs among entrepreneurs.

patterns that are critical in opportunity exploration and exploitation in uncertain and risky environments (Baron, 2008). Yet doubts remain about whether entrepreneurial passion is universally functional in the entrepreneurial process. Dysfunctional effects of passion, such as obsession and discounting negative information (Branzei & Zietsma, 2003), are thought to interfere with entrepreneurial effectiveness. Original theoretical work is needed to understand if and when entrepreneurial passion has functional outcomes and why.

Overall, the preceding literature review suggests two critical gaps that need attention: (1) a theoretically grounded conceptualization of the nature of entrepreneurial passion to address *what it is* and (2) a theoretical model for the experience of entrepreneurial passion that guides empirical testing of its predicted influence on cognitions and behaviors to explain *what it does*.

THE NATURE OF ENTREPRENEURIAL PASSION

We draw from the psychological literature on emotions and feelings and incorporate grounded ideas from entrepreneurship research and practice to propose a conceptual definition of entrepreneurial passion. Several notable reviews of psychological research on emotion are available (e.g., Barrett et al., 2007; Russell, 2003; Schwarz & Clore, 2007). We provide a summary of the working definitions of key psychological concepts relevant to our context in the Appendix. To build our conceptualization, we first outline the supporting theoretical foundations for two key assertions central to our proposed conceptualization: (1) entrepreneurial passion is a consciously accessible, intense positive feeling, and (2) entrepreneurial passion results from engagement in activities with identity meaning and salience to the entrepreneur.

Entrepreneurial Passion Is a Consciously Accessible, Intense Positive Feeling

The notion of passion has a long history, with early writings about its nature and importance dating back to Greek and Western philosophers (e.g., Aristotle's *Rhetoric* [Roberts, 1924]), moral theologians (e.g., Spinoza's *Ethics* [Della Rocca, 1996]), political scientists (e.g., Machiavelli's *The Prince* [1984]), and cultural mythologies (e.g.,

Bhagavad Gita [Radhakrishnan, 1993]). While these writings differ on whether it impairs or empowers reason, most view passion as any intense emotion that stirs humans with energy and deep longing to make a difference. Social psychologists' interest in studying passion is more recent and emphasizes its conscious experience, motivational quality, and identity meaning. Csikszentmihalyi (1990), for instance, suggests that passion promotes intense, flowlike states of total absorption in one's activities. Vallerand and colleagues' (2003) notion of passion is focused on activities in which people invest time and energy and that they find important. Other scholars argue that passion is activated by emotionally important goals that control and guide desires, thoughts, plans, and behaviors and that persist over time, regardless of costs, external obstacles, and moral objections (Frijda, 2005). Across these definitions, passion invariably involves feelings that are hot, overpowering, and suffused with desire. This fire of desire is referred to in virtually all writings on entrepreneurial passion with words such as enthusiasm, zeal, and intense longing (Table 1).

In the psychological literature passion is conceived as energy that gives individuals a sense of "pleasure and promise" (Rockwell, 2002: 52) and engages them "wholeheartedly with what . . . [they] love" (Belitz & Lundstrom, 1997: 57). The scholarly view of passion is compatible with a feeling that is highly intense and positive, similar to excitement, elation, and joy, but distinct from states that are negative and intense (e.g., upset, stressed), states that are not at all intense (e.g., fatigued, calm), or states that are positive but not intense (e.g., contented). As a feeling, passion involves consciously experienced changes in core affect (i.e., internal affective state) that are attributed to external stimuli and that are effortfully reflected upon and stored cognitively for later retrieval (Damasio, 2003; Schwarz & Clore, 2007; see also the Appendix). Reflection might include self-awareness ("What am I feeling physically?"), appraisals ("Why am I feeling this way?" "What caused this feeling?"), and categorization ("How does it compare with other feelings?"). As a feeling, entrepreneurial passion differs from episodic changes in core affect. While the latter is subconsciously or unconsciously activated by external objects or activities that may be inert or irrelevant to an individual's identity meaning, passion involves

"intense longing" that one feels for objects or activities that are deeply meaningful to one's identity, whether those objects are real, remembered, desired, imagined, or anticipated. We discuss the implication of this identity meaning of entrepreneurial activities next.

Entrepreneurial Passion Results from Engagement in Activities with Identity Meaning and Salience

In our view, passion is aroused not because some entrepreneurs are inherently disposed to such feelings but, rather, because they are engaged in *something* that relates to a meaningful and salient self-identity for them. For example, Baum and Locke (2004) and Shane, Locke, and Collins (2003) say that entrepreneurial passion is a love of *work*; Smilor (1997) argues it is about enthusiasm for *venture-related activities*; Cardon et al. (2005) say that passion is about love for the *venture* itself; and Vallerand and colleagues define passion as a "strong inclination toward an activity that people like, that they find important" (2003: 757). Although Vallerand et al. suggest that identity meaning is important for understanding passion, they do not explicitly consider identities in their proposed definition of passion, nor is their definition specific to entrepreneurship. Murnieks and Mosakowski (2006) also invoke identities, arguing that passion emerges when a broad entrepreneurial role identity is salient.

We extend the work of these authors by developing the notion of distinct entrepreneurial role identities that are linked to particular activities. Specifically, based on a taxonomy of entrepreneurial activities developed by Gartner, Starr, and Bhat (1999), we suggest three role identities: (1) an *inventor* identity, where the entrepreneur's passion is for activities involved in identifying, inventing, and exploring new opportunities; (2) a *founder* identity, where the entrepreneur's passion is for activities involved in establishing a venture for commercializing and exploiting opportunities; and (3) a *developer* identity, where the entrepreneur's passion is for activities related to nurturing, growing, and expanding the venture once it has been created. Undeniably, some entrepreneurs may be equally passionate about all three of these identities, whereas others may weigh one identity as significantly more meaningful to them.

Identity theory (Burke & Reitzes, 1981, 1991; Goffman, 1959), especially the literature focusing on conceptions of identity rooted in the self (Stryker & Burke, 2000), provides the theoretical logic for conceptualizing these three role identities. Here the focus is on the "active self" that asks, "Who am I?" and on how this self-knowledge motivates reflexive thought and self-initiated action to create, sustain, and change larger social and economic conditions to help one's self-growth and survival (Burke & Reitzes 1991). Researchers have defined identity as internalized expectations about those characteristics individuals hold as central, distinctive, and enduring about them and that are at least partially reflected in the roles they enact (Burke & Reitzes, 1991). For example, entrepreneurs who find self-meaning in the role of an inventor brimming with market-disruption ideas are likely to view the inventor identity as a central, possibly defining, and enduring characteristic about their self. Noting that the self is composed of multifaceted identities, identity theory acknowledges that, for any individual, identities are organized hierarchically such that an identity placed higher in the hierarchy is more salient and more central to self-meaning than those placed lower (Stryker & Burke, 2000). Therefore, some entrepreneurs may view a founder, rather than inventor, identity as more salient and central, and, consequently, they may be committed more to the role of creating a new venture than to that of exploring or inventing new opportunities. Indeed, over a lifetime, an entrepreneur may change the salience of different role identities (e.g., founder may become more central than inventor); however, at any given time, the relative importance of role identities is stable, making an entrepreneur's self-meaning temporally both distinctive and coherent.

This distinctive and salient role identity motivates entrepreneurs to engage in certain activities (and disengage from others) and explains the affective experience that this engagement invokes. In particular, identities are a source of motivation for actions that result in social validation of self-meaning. Role identities put people in social categories (e.g., "I am an inventor"), and individuals are motivated to maintain and confirm their self-meaning by engaging in activities and interacting with people in ways that confirm the role expectations and validate the behavioral implications of salient social catego-

ries (Burke & Reitzes, 1981, 1991; Goffman, 1959). Burke and Reitzes (1991) likened this to an active self that seeks engagement in activities that confirm and disengagement from those activities that distract from salient identities.

Such engagement in activities that validate salient identities is often not affect neutral; rather, it arouses positive affect in accord with affect control theory (Burke & Reitzes, 1991). Individuals experience positive emotions when their behavioral engagement maintains and enhances their salient identity. When such appraisals are congruent (behaviors reinforce the salient identity), activities are tagged with positive emotions, motivational resources are bolstered, and these associative links are stored in memory for later retrieval. Conversely, when appraisals lack congruence (behaviors are contrary to the salient identity), activities are tagged with negative emotion, motivational resources are mobilized to disengage, and such activities are possibly stored with avoidance links. Over repeated cycles and for some individuals, certain activities become associated with intense positive feelings because they reliably and strongly support the individuals' salient identity and motivate the individuals to experience the positive feelings that come from continued engagement in such identity-meaningful activities.

Consistent with the preceding logic, popular accounts indicate that entrepreneurs are often differentially passionate toward entrepreneurial activities. For instance, entrepreneurs with a salient inventor identity, exemplified by Stephan Wozniak, are aroused by passion when they engage in activities that involve seeking out new ideas, tinkering with new product development, or scanning the environment for market-disruptive opportunities. Alternatively, entrepreneurs who have the founder identity as most salient, such as Wayne Huizenga, experience passion for activities that involve assembling the resources necessary to create a firm, including financial (e.g., VC funding), human (e.g., employees), and social (e.g., board members) capital. Finally, entrepreneurs whose self-meaning is derived from the developer identity, exemplified by Ray Kroc, experience passion when they engage in activities related to market development (e.g., attracting new customers) and financial growth (e.g., value creation and appropriation).

It is not necessary that entrepreneurs have a single identity that is hierarchically dominant. However, when they do, entrepreneurs may disengage from activities relevant to other less meaningful identities. For example, entrepreneurs may be so passionate about the inventor role that they never actually take their products to the market or found the venture to exploit the opportunity. Similarly, serial and portfolio entrepreneurs may be more passionate about the founder role and willing to sell their firm to others who are more interested in growing the venture to realize its full market potential. More generally, entrepreneurs may have multiple identities that depict varying patterns and are organized in a hierarchy of more or less importance, where none is clearly dominant or where some may be in conflict. Burke (2006) has noted that multiple identities shift focus to internal organization of identities, and to mechanisms by which the active self negotiates among different identities. Consideration of multiple entrepreneurial role identities may help explain conditions that lead to harmonious passion (e.g., when an entrepreneur can easily transition among salient role identities) and to obsessive passion (e.g., when one role identity crowds out other identities). Thus, it matters which specific role identity invokes passion for entrepreneurs, to what extent it interferes in the fulfillment of roles related to other identities, and how an entrepreneur's active self manages multiple identities.

In summary, we conceptualize the nature of entrepreneurial passion as *consciously accessible, intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur*. Next we discuss the experience of entrepreneurial passion to address what it does.

THE EXPERIENCE OF ENTREPRENEURIAL PASSION: COORDINATION OF COGNITIONS AND BEHAVIORS FOR ENTREPRENEURIAL EFFECTIVENESS

Once activated, entrepreneurial passion catalyzes full-blown emotional experiences, complete with engagement of brain (e.g., appraisals and cognitions) and body (e.g., physiological and behavioral) responses (Russell, 2003). The notion of emotional experience recognizes that

the brain and body responses triggered by passion do not appear as independent and disconnected responses but, rather, as a coherent and coordinated pattern that is maintained over time (Damasio, 2003; see also the Appendix). As such, the passion experience facilitates an entrepreneur's efforts to adapt and cope with environmental challenges. This does not presume that the resulting adaptation and coping are necessarily functional. Instead, we acknowledge that the experience of entrepreneurial passion may produce response patterns that are obsessive, blind, or misdirected (e.g., Vallerand et al., 2003). Cases abound of entrepreneurs who obsess about their ventures to the point that it curbs growth or who persist with failing ventures long after they should have moved on. In prefacing our conceptual model, we define the experience of entrepreneurial passion as a complex pattern of psychological, brain, and body responses activated and maintained by an entrepreneur's passion that, when regulated, aid in motivating coherent and coordinated goal pursuit. Below, we elaborate the proposed model with self-regulation theory as the overarching conceptual framework.

Several aspects of self-regulation theory (Carver & Scheier, 1998) make it relevant for understanding how and why entrepreneurial passion might coordinate entrepreneurs' cognitions and behaviors. First, self-regulation processes are central to human agency (effortful and conscious engagement of the self) and human coping (mobilization of body and brain responses to overcome challenges). The notions of agency and coping are compatible with entrepreneurial thinking that recognizing, reshaping, and responding to opportunities lie at the nexus of the individual and the environment (Shane & Venkataraman, 2000). Second, self-regulation theory views individual agency and coping as goal-directed processes, just as entrepreneurs are thought to engage in exploration and exploitation activities in pursuit of desired goals. Goals provide direction and clarity to entrepreneurial efforts. Third, individual differences in self-regulation are known to influence coping effectiveness. Likewise, entrepreneurs differ in the degree to which they can regulate their internal feeling states and behavioral responses to cope effectively, especially when multiple feeling states associated with disparate identities are activated. For instance, entrepreneurs may demonstrate a range of regulative control,

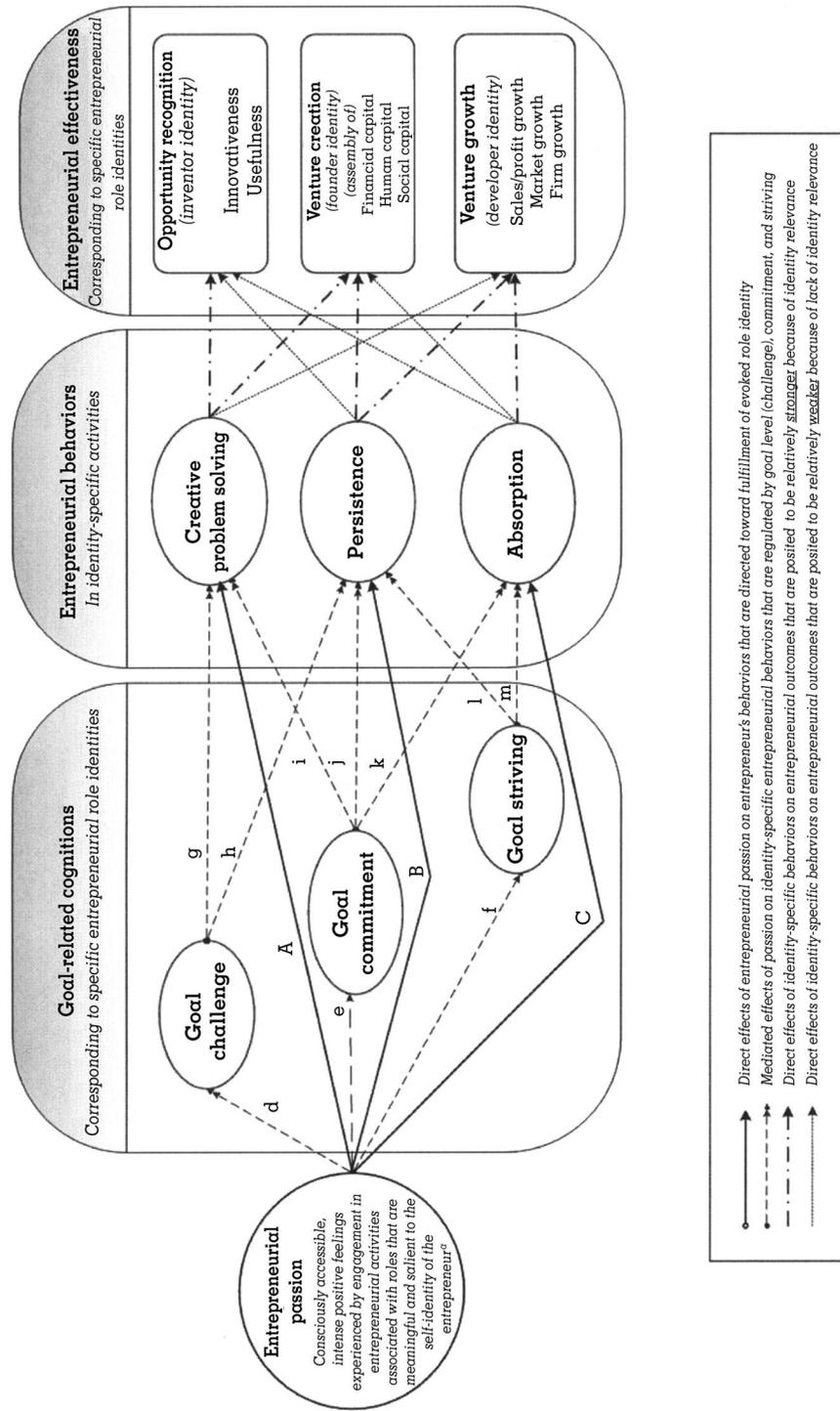
from *underregulation*, characterized by an inability to optimally control or balance internal feeling states and giving way to impulsive responses, to *overregulation*, characterized by suppression of one or more internal feeling states and a lack of response spontaneity and novelty (Gross, 1999).

Figure 1 depicts the proposed conceptual model. The modeled processes are triggered when entrepreneurial passion is activated (shown in the left-most circle), and they culminate in entrepreneurial outcomes (shown in the right-most box). Consistent with three identities proposed as meaningful for entrepreneurs, we include indicators of entrepreneurial outcomes that can be loosely categorized into those involving opportunity recognition (e.g., inventor identity), venture creation (e.g., founder identity), and venture growth (e.g., developer identity).²

When a particular identity is activated (say, *inventor*), we expect that the experience of passion mobilizes an entrepreneur's self-regulation processes that are directed toward effectiveness in the pursuit of the corresponding entrepreneurial goal (here, *opportunity recognition*). This goal pursuit, in turn, involves validating the focal identity by cognitive and behavioral engagement in activities in a manner that is characteristic of intense positive emotions. Consequently, the self-regulation processes linking entrepreneurial passion and outcomes are represented by linkages involving goal-related cognitions and entrepreneurial behaviors (the two middle boxes in Figure 1). We argue that entrepreneurs fired by passion evidence behavioral engagement in entrepreneurial activities that is characterized by (1) creative problem solving, defined as the production of novel and useful ideas or actions (Woodman, Sawyer, & Griffin, 1993); (2) persistence, defined as the continuation of effortful action despite failures, impediments, or threats, either real or imagined (Gimeno, Folta, Cooper, & Woo, 1997); and (3)

² While we include these three broad categories of entrepreneurial effectiveness in our model and specify potential metrics for each category based on entrepreneurship research, we do not view these indicators as definitive or complete. Additional details on opportunity recognition are available in Singh, Hills, Lumpkin, and Hybels (1999), venture creation in Gartner (1985), and venture growth in Haber and Reichel (2005).

FIGURE 1
A Conceptual Model of the Experience of Entrepreneurial Passion



^a Role identities that may be meaningful for entrepreneurs include inventor, founder, and developer identities (see text for more details).

absorption, defined as being fully concentrated and deeply engrossed in one's work (Schindehutte, Morris, & Allen, 2006). Note that persistence, which refers to the duration of task engagement, is conceptually and empirically distinct from absorption, which refers to the level of task involvement.

We organize our discussion of the experience of entrepreneurial passion by emphasizing that the role fulfillment for each identity involves a focus on the goal corresponding to a specific set of entrepreneurial outcomes, and this goal pursuit is differentially affected by entrepreneurial behaviors. We first focus on how entrepreneurial passion influences these behaviors directly, and we then focus on how it influences these behaviors indirectly through goal-related cognitions.

Direct Effects in the Experience of Entrepreneurial Passion

Because passion involves intense and pleasurable feelings arising from engagement in activities associated with a role identity that is deeply meaningful, we expect entrepreneurs to regulate their responses to maintain or enhance such feelings. With experience and learning, entrepreneurs may encode a coherent pattern of behavioral responses as part of schema for a specific role identity that can be autonomously activated without much cognitive effort. Such autonomous response patterns are the direct effects in Figure 1 (paths A, B, and C).

Based on the psychology of positive emotions (Fredrickson, 1998), we posit that the intense feelings associated with passion will result in an inverted-U effect on entrepreneurs' creative problem solving (path A in Figure 1). Individuals experiencing positive affect have an adaptive approach to environmental stimuli, motivating their attention and energy to tackle encountered challenges or problems. When problems stand in the way of dreams, desires, or purpose deeply rooted in the self-identity, entrepreneurs who are experiencing passion are more likely to regulate their attention and motivation to identify solutions that could otherwise go unnoticed or unexploited. In this sense, passion more readily facilitates creation of unusual associations, such as recognition of patterns and relatedness among stimuli, enabling entrepreneurs to engage in novel and creative paths of action

(Fredrickson, 1998). Thus, we expect the regulatory influence of passion to enable entrepreneurs to recognize novel patterns of information, to perceptually process stimuli, and to leverage their existing knowledge to find creative solutions. This reasoning is consistent with Amabile's (1997: 42) finding that people who are fired by passion are more likely to pursue creative solutions.

However, passion that is too positive or intense can limit an entrepreneur's creative problem solving. We theorize that this occurs because the entrepreneur is resistant to exploring alternative options, fearing that doing so may dilute and distract the intense positive experience, thereby curtailing the productive and flexible problem-solving approach associated with passion. Consistent with this, Vallerand and colleagues (2003) suggested that extremely intense passion may invoke an obsessive response indicated by a rigid rather than flexible manner of engagement in identity-relevant activities because the focal identity crowds out other identities, consistent with the notion of its having "disproportionate space" within a person's life. Thus, we posit the following.

Proposition 1: Entrepreneurial passion will have an inverted-U influence on creative problem solving directed at identity-relevant activities.

The importance of creative problem solving for effectiveness is especially germane when an entrepreneur's passion is for the inventor identity. In this instance validation and affirmation of the entrepreneur's identity will come from effectiveness in opportunity recognition rather than other outcomes. Such an entrepreneur will be particularly driven toward engagement in creative pursuit of identifying, inventing, and exploring new opportunities or market niches (Wilson & Stokes, 2005). Past research suggests that creative problem solving is particularly important for generating novel and useful ideas and opportunities for business ventures (Ward, 2004). For instance, many entrepreneurs are challenged by identifying novel market opportunities that are concurrently interesting, compatible with their individual human capital and skills, innovative for the potential market, and viable as a profit-making venture. Thus, while persistence and absorption behaviors can be helpful in effective opportunity recognition, en-

trepreneurial engagement in creative problem solving is crucial.

Proposition 2: When an entrepreneur's inventor identity is dominant, entrepreneurial passion will influence the entrepreneur's effectiveness in opportunity recognition, mainly because of its effect on creative problem solving.

As depicted by the direct path B in Figure 1, we also expect that passion will positively and directly influence an entrepreneur's persistence on tasks that validate and reaffirm the identity activated by passion. Support for this assertion is drawn from psychological studies of behavioral patterns associated with and regulated by positive feelings (Fredrickson, 1998). In general, positive feelings enhance continued engagement in tasks and activities that invoke such feelings, because people want to maintain a positive emotional state and resist disengagement (Pham, 2004). When the focal activities are not only pleasurable but are also deeply meaningful to self-identity, we can expect that individuals will be bolstered to persist so that they can enjoy a prolonged state of positive affect, reinforce their role identity, and mitigate the risk of identity threats that come from premature disengagement (Burke, 2006; Pratt & Foreman, 2000). Consequently, we posit the following.

Proposition 3: Entrepreneurial passion will positively influence an entrepreneur's persistence on identity-relevant activities.

When an entrepreneur's passion is associated with the founder identity, we expect that the entrepreneur will regulate his or her attention and motivation in pursuit of venture creation goals. For effectiveness in this pursuit, we expect that persistence and creative problem solving will be particularly important. The liabilities of smallness and newness are most prominent at the venture creation stage (D'Intino, Goldsby, Houghton, & Neck, 2007). Entrepreneurs face considerable challenges, including rejection of ideas, refusal of funding requests, and lack of legitimacy, which together may turn away potential customers as well as employees. To secure funding, locate customers, hire employees, and more generally establish the firm's reputation and legitimacy, an entrepreneur's persis-

tence in the pursuit of financial, human, and social capital is critical (Gimeno et al., 1997).

We expect that the regulatory influence of intense positive feelings associated with the founder identity is likely to mobilize action and the needed energy of entrepreneurs to master challenging situations by overcoming uncertainties, setbacks, and resource shortages in the assembly of financial, human, and social capital. Bierley and colleagues (2000) affirmed that passion is linked to energetic and persistent goal pursuit, particularly the ability to overcome resistance, obtain resources, coordinate activity, and motivate key people. However, creative problem solving in developing new ways of reaching out to potential investors, employees, and customers is also important. For example, Elsbach (2003) studied venture capital pitch sessions and found that the investors often made their investment decision at least in part based on the creativity of the entrepreneur making the pitch. More broadly, Lee, Florida, and Acs (2004) argued that creativity has a positive relationship with new firm formation.

Proposition 4: When an entrepreneur's founder identity is dominant, entrepreneurial passion will influence the entrepreneur's effectiveness in venture creation, mainly because of its effect on persistence and creative problem solving.

We also predict that entrepreneurial passion will positively influence absorption with entrepreneurial activities associated with the invoked role identity (path C). Engagement in tasks and activities that hold identity meaning is posited to be an experience akin to "flow," where entrepreneurs become immersed in and feel in complete control of their activities such that they barely notice the passing of time or the people around them (Csikszentmihalyi, 1990). The combination of intense excitement and focus, which are defining characteristics of flow experiences, is central to the experiential and regulation effects of entrepreneurial passion. When entrepreneurs are aroused by their passion for activities associated with a meaningful identity, they experience intense excitement that comes from pursuit of deeply internalized goals such that they often ignore activities or people that may detract from it.

Some scholars suggest that entrepreneurs' success largely depends on their regulative capabilities to cultivate personal flow experiences (e.g., Schindehutte et al., 2006). Successful entrepreneurs, such as Bill Gates, who are able to continuously innovate in highly competitive and rapidly evolving markets are thought to be capable of remaining in states of flow for much longer periods of time than the average business person (D'Intino et al., 2007). Thus, we expect a positive relationship between entrepreneurial passion and absorption.

Proposition 5: Entrepreneurial passion will positively influence an entrepreneur's absorption in identity-relevant activities.

Further, an entrepreneur's goal pursuit is likely to be regulated for venture growth when the developer identity is at the fore of entrepreneurial passion. In this instance we expect that an entrepreneur's absorption and persistence are relatively more significant for effectiveness in venture growth, although creative problem solving is also relevant. The challenges of venture growth involve navigating the chaos and ambiguity of markets that come from continuously evolving customer needs and unrelenting competitive moves (Schindehutte et al., 2006). When entrepreneurs approach venture growth activities with a high level of absorption, they are less prone to be perturbed by environmental ambiguity and are more likely to engage in them with clarity and focus (Jelinek & Litterer, 1995). In addition, the liability of growth poses challenges of managing competing pressures, including maintaining rapid growth while providing bureaucratic stability, along with the need to simultaneously monitor changing market and environmental conditions (e.g., Slevin & Covin, 1997). Such challenges require resolve and sustained effort over time in order to effectively cope with the considerable tension, transition, and change involved in venture growth. Thus, the combination of focused attention (absorption) and continued efforts (persistence) is critical to market growth activities.

Proposition 6: When an entrepreneur's developer identity is dominant, entrepreneurial passion will influence the entrepreneur's effectiveness in ven-

ture growth, mainly because of its effect on absorption and persistence.

Thus far, we have assumed that an entrepreneur's role identities are organized hierarchically such that only a single identity is dominant in the experience of entrepreneurial passion. In reality, this is not always the case. Entrepreneurs may have conflicting role identities. However, at a given point in time, an entrepreneur's passion may be associated with only one of the salient identities. In such instances multiple identities do not pose any conflict, and an entrepreneur can harmoniously navigate his or her passion for different identities. In some instances multiple identities may be concurrently activated. For instance, in the nascent stages of venture creation, entrepreneuring may involve activities that relate to both inventor and founder identities, such as when entrepreneurs present their ideas to a prospective venture capitalist. In these situations the proposed direct effects will be contingent on the regulatory capabilities of entrepreneurs. When the entrepreneurs are able to regulate harmoniously among the invoked identities, the proposed effects are likely to hold. However, when entrepreneurs' regulatory capabilities are challenged by identity conflict, we expect the proposed effects to be subdued and even to become nonsignificant as the conflict dilutes and divides the entrepreneurs' attention and motivation. We expect regulatory capabilities to vary across entrepreneurs and to influence the ability of the entrepreneurs to realize the positive outcomes from passion, especially in situations involving conflicting identities.

Mediated Effects in the Experience of Entrepreneurial Passion

We also argue that entrepreneurial passion will influence behaviors and, ultimately, effectiveness through its mediating effect on goal-related cognitions (see Figure 1). Despite past arguments that emotions and reason are inherently at odds, scholars now recognize that cognitions and emotions may act as coherent and connected systems that work together to dynamically regulate human behavior toward desired goals (Damasio, 2003; Pham, 2004). For example, Fredrickson (1998) postulated that positive feelings broaden one's thought-action repertoires

by activating (via attentional processes) and broadening (via information processing) the scope of cognitions, which, in turn, guides one's behavioral response toward effective goal pursuit. Seo, Barrett, and Bartunek (2004) specified broaden-and-build postulates for work motivation by proposing goal cognitions as mediators of the influence of core affect.

Building on these ideas, we propose mediation effects of goal cognitions to reflect coordination between passion and cognition during goal pursuit. Specifically, we propose that entrepreneurial passion will influence the level of challenge inherent in the goals entrepreneurs set, their commitment to those goals, and the nature of their striving toward goal attainment. These goal cognitions, in turn, will have differential effects on entrepreneurs' creative problem solving, persistence, and absorption in identity-relevant tasks. These behaviors will influence entrepreneurial effectiveness, as we elaborated on in the preceding section.

Consider the influence of entrepreneurial passion mediated by goal challenge—the difficulty level of goals set (paths d-g and d-h in Figure 1). We expect that an entrepreneur's passion will lead to setting more challenging goals for the tasks and activities associated with the invoked role identity, for two primary reasons. First, the positive valence of passion bolsters success beliefs for activities that affirm and validate the identity associated with that passion. When entrepreneurs engage in activities they are passionate about, they are more confident and positive in making evaluative judgments about possibilities of success in those activities. This may happen, for instance, because the entrepreneurs interpret their intense positive feelings for identity-relevant tasks as affirmative information about their capabilities to meet environmental demands (i.e., "I feel good, so I must be good at this"), in accord with the feeling-as-information hypothesis (Schwarz & Clore, 2007). When success beliefs are bolstered, entrepreneurs with passion are prone to set more challenging goals than those who approach the focal activities without being energized by passion. More generally, Locke and Latham (2002) suggested that positive feelings influence cognitive appraisals associated with setting challenging goals.

Second, when entrepreneurs are passionate about a particular role identity, they are likely to

have more expansive thought-action repertoires as per the broaden-and-build theory (Fredrickson, 1998; Seo et al., 2004), resulting in an enlarged sense of their capabilities and personal resources. In uncertain and dynamic situations where success expectancies are unknown, inestimable, or fuzzy, entrepreneurs experiencing passion are more likely to be emboldened by their heightened sense of capabilities and resources to set more challenging goals than those entrepreneurs lacking the spark of passion. Baum and Locke's (2004) research suggests that entrepreneurs with passion are more prone to garner and invest resources like time and effort to develop needed capabilities for activities they like and goals they aspire toward. Thus, passion is associated with setting challenging goals.

In turn, setting challenging goals is predicted to enhance creative problem solving and to inhibit persistence on role-relevant activities. Creativity in entrepreneurial tasks necessitates flexibly altering preexisting routines to explore new approaches and ideas that are effective in problem solving. Challenging goals, especially when they are self-set and identity relevant rather than assigned and identity irrelevant, are likely to energize entrepreneurs to expend greater effort and develop creative task strategies. This is because self-set challenging goals have motivational influence such that entrepreneurs have a strong desire to achieve those goals so they can validate or bolster their internalized entrepreneurial identity. When this motivation is focused and directed by challenging goals to specific identity-relevant activities, studies report that individuals find and make better task strategies to attain goals (Locke & Latham, 2002).

While challenging goals can increase persistence in stable and predictable environments (Locke & Latham, 2002), we expect the reverse effect in environments involving uncertain or ambiguous feedback during goal pursuit, such as entrepreneurship. When entrepreneurs set challenging goals, they are more likely to encounter obstacles during goal pursuit, especially in unstable environments where uncontested success is unlikely and where it is hard to assess whether performance goals are met. Such encumbered goal pursuit provides numerous instances of negative feedback. Although initial negative feedback may not perturb an

entrepreneur fired by passion, continued negative feedback from the pursuit of challenging goals can result in the entrepreneur's mitigating the growing threats to a strongly held identity by revising or disengaging from initial goals. Such actions diminish persistence on the challenging goals. Also, given limited cognitive resources, a focus on developing and implementing ways to address challenging goals can consume considerable cognitive resources, limiting resources available for persisting in overcoming unexpected obstacles encountered during goal pursuit.

Proposition 7: Entrepreneurial passion for activities associated with a particular identity will lead an entrepreneur to set more challenging goals, resulting in (a) higher levels of creative problem solving but (b) lower levels of persistence on identity-relevant activities.

Next, we posit that goal commitment will mediate the influence of entrepreneurial passion on creative problem solving, persistence, and absorption (paths e-i, e-j, and e-k in Figure 1). Goal commitment is defined as the extent of determination an individual has to attain a set goal (Locke & Latham, 2002). Because passion is associated with salient role identities, it should lead entrepreneurs to be intrinsically motivated to achieve the goals associated with affirming those identities. When entrepreneurs are intrinsically motivated, they are likely to have greater commitment than those entrepreneurs who set instrumentally motivated goals. Studies show that commitment is not simply due to higher activation levels associated with positive emotion but, rather, to cognitive processes involving evaluation of rewards (e.g., more valued), effort-outcome linkages (e.g., more confident and stronger), and autonomous control (e.g., more self-directed) from intrinsic motivation. Although no study in the entrepreneurship literature has directly examined the relationship between passion and goal commitment, indirect evidence exists that when positive feelings activate identity-relevant goals, entrepreneurs are motivated to effortfully engage in goal pursuit (Baron & Ward, 2004), which is a critical part of goal commitment.

In turn, goal commitment is predicted to enhance entrepreneurs' absorption, creative prob-

lem solving, and persistence. Once entrepreneurs commit to set goals, their intrinsic motivation regulates them to focus their cognitions on attainment of identity-relevant goals and to suppress resources directed at identity-irrelevant activities and distractions (Locke & Latham, 2002). Suppression of goal-irrelevant distractions, combined with highly focused and motivated involvement, is conducive for flow experiences, thereby promoting task absorption (Schindehutte et al., 2006). Further, when entrepreneurs are intrinsically motivated to engage in activities that validate their salient identity, we expect that they will demonstrate greater involvement in goal-directed tasks, resulting in a generative behavioral orientation, indicated by a focus on learning and enjoyment of identity-relevant activities. Such an orientation is associated with a flexible approach to problems and enhanced creativity in problem solving. Finally, we expect goal commitment to lead to greater persistence, because intrinsic motivation is associated with higher levels of perceived autonomy and confident self-beliefs regarding identity-salient activities that bolster an entrepreneur's effort and attention toward goal-focused activities. In a recent study Schindehutte et al. found that entrepreneurs' commitment level was a key indicator of peak performance, allowing them to persist as they "continue against the odds and overcome fatigue and pain to finish a task or meet a challenge" (2006: 353). Thus, we propose the following.

Proposition 8: Entrepreneurial passion for activities associated with a particular identity will lead to greater goal commitment, resulting in (a) higher levels of creative problem solving, (b) higher levels of persistence, and (c) higher levels of absorption in identity-relevant activities.

Goal striving—defined as planning action, monitoring progress, and adjusting action plans based on impediments encountered during goal pursuit (Oettingen & Gollwitzer, 2001)—is also posited to mediate the influence of entrepreneurial passion on persistence and absorption (Figure 1, paths f-l and f-m). Entrepreneurial passion directs attention to challenging strategic goals related to a particular meaningful role identity, rather than more tactical goals needed

to maintain progress on immediate tasks. This is because passion engages meaningful role identities that are usually associated with abstract goals. Building on past research (Seo et al., 2004), we reason that strong commitment to initially set goals, combined with the goals' higher level of abstraction (strategic rather than tactical), will make entrepreneurs less inclined to make frequent and thorough progress judgments and will inhibit them from altering and adjusting their initial goals. As a result, entrepreneurial passion should diminish goal striving.

Support for this comes from Baum and Locke (2004), who noted that the energy of passion triggers a natural toughness to stick to the initial goals involved in venturing and an unwavering focus on those initially set goals. Likewise, Cova and Svanfeldt (1993) suggested that entrepreneurs with high levels of passion are less sensitive to contrary market information and instead continue with initially determined plans. This is consistent with Schwarz and Clore's arguments (2007: 26) that when different processing styles are possible to meet current goals and task demands, happy individuals rely on a less effortful, top-down, heuristic information-processing strategy, although they are able and willing to engage in more careful and systematic information processing (which is associated with goal striving) when task demands require it.

When entrepreneurs are more effective at goal striving, we predict that they are likely to evidence higher persistence but lower absorption. First, entrepreneurs who engage in goal striving are planning and attending to task feedback, both of which are likely to lead to greater persistence in goal pursuit. Support for this comes from Liao and Gartner (2006), who reported that entrepreneurs who engaged in planning activities were more persistent at new venture creation. Second, we expect goal striving to diminish absorption in identity-relevant activities because it shifts attention away from strategic goals activated by entrepreneurial passion to more immediate tactical goals and associated feedback, thereby interrupting flow experiences that come from effortlessness in goal-directed actions. Support for this comes from Schindehutte et al. (2006), who found that the flow experiences among founding entrepreneurs had hallmarks of autotelic experiences,

which are indicative of heuristic processing that is less compatible with the detailed cognitive processing associated with goal striving. Finally, because goal striving involves monitoring progress feedback and attending to implementation rather than innovation, we do not expect an association between goal striving and creative problem solving.

Proposition 9: Entrepreneurial passion for activities associated with a particular identity will lead to lower levels of goal striving, resulting in (a) lower levels of persistence (a positive effect of goal striving on persistence) and (b) higher levels of absorption (a negative effect of goal striving on absorption) in identity-relevant activities.

DISCUSSION AND IMPLICATIONS

We have aimed to bring order to the disparate meanings and uses of the term *passion* in entrepreneurship by developing a theory for understanding the nature and experience of entrepreneurial passion that addresses what it is and what it does. Best viewed as a starting point for programmatic research, the proposed theoretical framework facilitates examining outstanding questions about passion in entrepreneurship that have thus far received mixed or limited attention, and it invites empirical testing to guide further developments and refinements. We begin our discussion with contributions concerning the nature of entrepreneurial passion.

Entrepreneurial Role Identities and the Nature of Entrepreneurial Passion

Our conceptualization of the nature of entrepreneurial passion asserts that studies that ask what passion is or what it does must begin by addressing *passion for what*. We propose that entrepreneurial passion is *for* one or more meaningful roles that are salient to the self-identity of the entrepreneur and correspond to intense positive feelings consciously experienced by engagement in entrepreneurial activities associated with the focal role(s). We specifically discuss three role identities—inventor, founder, and developer—that are relevant for entrepreneurship.

Past researchers, including Vallerand and colleagues (2003), have noted that passion involves

engagement in specific activities (e.g., biking) or with specific objects (e.g., coin collections), and some have hinted that these activities and objects have identity meaning. However, we are the first to explicitly break down the notion of an abstract entrepreneurial identity (Murnieks & Mosakowski, 2006) so as to conceptualize and theoretically develop three specific role identities that have distinct characteristics and relate to disparate entrepreneurial outcomes, including opportunity recognition (inventor role), venture creation (founder role), and venture growth (developer role). In so doing, our study moves beyond theories of entrepreneurship that implicitly or explicitly portray the entrepreneurial role as motivated primarily by the instrumental goal of wealth creation and maximization. We do not rule out that, for some entrepreneurs, the mere thought of possessing unimaginable wealth may invoke intense positive feelings akin to passion. However, we argue that passion will be associated with the three roles developed here, because these have intrinsic motivation stemming from the validation and affirmation of an entrepreneur's conception of true self, thereby activating authentic passions. In this sense wealth seeking is relevant but not central to the conception of the self.

Conceptualizing entrepreneurial role identities as central to the nature of entrepreneurial passion allows the field to (1) clarify the distinction between passion and any positive emotion, (2) overcome the limitations of trait-based approaches to entrepreneurial passion in explaining observed entrepreneurial behaviors, and (3) open new lines of theoretical and empirical inquiry that current research neither facilitates nor illuminates. First, it is inappropriate to conflate entrepreneurial passion with episodic emotions or to view it simply as any intense positive feeling. Episodic affect entails shifts in current moods that are primarily triggered by external events, are short term in duration, and are hardwired as involuntary responses to stimuli. In contrast, entrepreneurial passion is consciously experienced and categorized feeling, invoked by engagement with activities anchored to the entrepreneur's self-identity and encoded based on effortful reflection, categorization, and integration of affective responses (see the Appendix). Moreover, while an entrepreneur's positive emotions will be based on aggregating across a diverse set of activities that are

engaged in over a (short) period of time, passion involves feelings experienced when entrepreneurs engage in a set of activities that relate to a salient entrepreneurial identity and that endure over a longer period of time. Because we expect that *only* feelings associated with the inventor role identity and its meaningfulness will influence, for example, persistence in opportunity recognition activities, an aggregated indicator of emotions is likely to lack comparable predictive and diagnostic power. An entrepreneur can, of course, experience passion and episodic emotions concurrently, and this is an area ripe for future inquiry.

Second, some recent studies conceive of entrepreneurial passion as a traitlike, individual-difference variable (Baum et al., 2001; Shane et al., 2003). These approaches can explain why some entrepreneurs experience passion for their pursuits while for others entrepreneurship is a cognitive and rational pursuit, devoid of emotive content. However, our identity-based approach is more flexible and can explain observed patterns of entrepreneurial behaviors that are not captured in the trait-based approach. For instance, some nascent entrepreneurs who evidence high passion for entrepreneurship lose the fire of passion as the venture grows, just as some entrepreneurs with passion for discovering high-value-added market opportunities are willing to let others take their ideas and extract market value by further growing the venture. Such patterns pose a challenge for the passion-as-trait approach because it asserts that passion will remain fairly stable across the life cycle of entrepreneurs. Our conception suggests that whether passion remains stable or is "lost" depends on variability in the differing levels of passion entrepreneurs have for different role identities.

Third, in extending these lines of inquiry, we can hypothesize that some nascent entrepreneurs may lose the fire of passion because less meaningful role identities are invoked for them as the venture grows. For example, in the early stages entrepreneurial activities are typically linked to an inventor identity, while in later stages activities are more likely related to a founder or developer role, which may be less central to an entrepreneur's self-identity. Some entrepreneurs may find identity meaning in each role identity and may harmoniously shift from one identity to the other as the venture

emerges and grows. Similarly, some entrepreneurs who experience passion for their venture yet relinquish their inventions or ventures to others may have passion for the inventor or founder but not the developer identity. Although conjectural, such lines of inquiry are neither entertained in nor provoked by current conceptions and warrant future investigation.

Empirical examination of the preceding insights will require developing a validated entrepreneurial passion measure. Recent studies have taken initial steps by identifying activities toward which entrepreneurs have strong inclinations, that they find important, and in which they invest time and energy as a way to measure entrepreneurial passion (Brännback et al., 2006; Murnieks, 2007). While important, these efforts neither link entrepreneuring activities to specific role identities nor capture activities at a specific enough level. Our definition instead suggests that original future work in operationalizing entrepreneurial passion is needed to include direct assessment of (1) the meaningfulness of individual role identities for the entrepreneur (e.g., "Inventing new solutions to problems is an important part of who I am"), (2) the intensity of positive feelings for activities associated with individual role identities (e.g., "It is exciting to figure out new ways to solve unmet market needs that can be commercialized"), and (3) a rule for combining the preceding evaluations to develop a composite or latent entrepreneurial passion score for *each* identity. We note that such an operationalization parallels attitude measurements (a multiplicative combination of beliefs and importance ratings), and much can be gained by drawing on the extensive experience with such measurements (e.g., Fishbein & Azjen, 1975).

Coordinated Regulation in the Experience of Entrepreneurial Passion

Until recently, most studies expressed the view that passions cloud reason and that effective decision making requires rational and reasoned judgments (Damasio, 1994). For instance, Shane and Venkataraman (2000) asserted that optimism, an emotion related to passion, limits information, leads to rosy forecasts, and impedes reason (act first, think later), and they emphasized the superiority of reason-based decisions for effectiveness in exploiting oppor-

tunities. Our work goes beyond normative assertions of passion *versus* reason to develop theory-based predictions for a more balanced study of passion *and* reason as interdependent systems. In our view, when aroused, passion for entrepreneurial identities coordinates and regulates entrepreneurial cognitions and behaviors for goal pursuit. While this regulatory influence is not universally functional, the proposed theory of entrepreneurial passion clarifies when it is functional or dysfunctional by positing direct and goal-mediated effects on entrepreneuring behaviors, along with contingencies for its consequences for entrepreneurial outcomes that are regulated by the salient identity(ies) entwined in the experience of entrepreneurial passion.

Our theorizing contributes to the literature by moving beyond global assertions about passion versus reason to provide a fine-grained understanding of what passion does, when it is functional, and why. Our work suggests that what passion does varies, depending on (1) what the passion is for (e.g., which identity is involved and how salient that is to the individual), (2) which specific entrepreneurial behavior is considered, (3) which particular goal cognitions are activated, and (4) what aspect of entrepreneurial effectiveness is of substantive interest. The proposed conceptual framework provides a systematically organized approach to account for the preceding effects in a way that encourages empirical examination. For instance, we predict that entrepreneurs who experience passion for one or more salient identities will be more persistent and more absorbed in identity-relevant tasks but will be limited in their creative problem solving beyond an intermediate point. Likewise, our inclusion of goal cognitions as mediators of the influence of passion on behaviors suggests parallel and dynamics pathways for passion's effects, rather than simple linear relationships. Moreover, we advance a contingent view of entrepreneurial passion by theorizing differential effects of entrepreneurial behaviors on outcomes, depending on the specific identity invoked in the experience of entrepreneurial passion. When an inventor identity is invoked, for instance, opportunity recognition is the dominant goal and creative problem solving the consequential pathway for goal effectiveness.

Our rich theorizing allows new insights into the observed heterogeneity in patterns of entrepreneurial success. For instance, why do some

entrepreneurs succeed in achieving impossible goals despite the odds and despite failures along the way, whereas others burn out too quickly, resulting in grief and disappointment? Although past research has addressed these questions with variables such as personality traits, market forces, and luck, our theorizing suggests that passion may be a critical ingredient in an entrepreneur's success in achieving challenging goals not simply because it mobilizes energy and enhances commitment but, rather, because passion activates heuristic cognitive processing and coordinates broaden-and-build mechanisms that are especially functional. As such, our theory posits that entrepreneurs like Wayne Huizenga, Anita Roddick, and Stephan Wozniak may have succeeded because they had high levels of passion for their entrepreneurial identities, in particular for the inventor identity, and this passion kept their energy focused on overarching but challenging goals and promoted cognitive mechanisms that were not easily hindered by temporary setbacks, impediments, or failures. Nevertheless, at this stage our theorizing and propositions are conjectural and warrant future empirical examination.

Initial empirical testing of the proposed framework will likely require quasi-experimental and nonexperimental approaches with entrepreneurship-relevant samples. One possible approach focused on internal validity would be controlled, longitudinal quasi-experiments that used materials for activating passion (e.g., imagined task engagement) and dynamically tracked individual entrepreneurs' responses as they worked toward goal-directed tasks. Computer "game" models and role-playing algorithms may be effective for such experiments, as they have been in emotion studies (Barrett et al., 2007), provided that identity salience can either be elicited or measured in such experiments. Another possible approach, focused on external validity, would be cohort, panel, or random sample studies that examined the key assertions of the hypothesized framework in the field with entrepreneurs.

CONCLUDING NOTES

Much has been written and said about the nature and experience of entrepreneurial passion, yet there is little to show for conceptual

development of and theorizing about this intriguing phenomenon. We correct this gap by proposing a theory of entrepreneurial passion that provides a systematic foundation for examining what passion is and what it does for entrepreneurs. We do not presume that entrepreneurs can necessarily be trained to *feel* more or less passion for entrepreneuring. Neither do we assert that passion is a panacea for successfully coping with entrepreneurial challenges. Rather, our theorizing recognizes passion as a phenomenon that is prevalent among entrepreneurs but is often loosely defined, confused with other emotions or misunderstood, and inadequately theorized for understanding its mechanisms of influence on entrepreneuring behaviors.

Clarity about the nature of entrepreneurial passion and theorizing about its regulatory influence have implications for theory and practice. We hope that research guided by our theorizing will help entrepreneurs to recognize and effectively regulate their passions, harmoniously manage conflict among competing entrepreneurial identities, and mitigate the dysfunctional effects of passion. We encourage scholars to use our work as a starting point for systematic studies of entrepreneurial passion to provide insights for practice that nurture the fire of passion for entrepreneurial effectiveness.

APPENDIX: REVIEW OF KEY PSYCHOLOGICAL CONCEPTS RELEVANT FOR ENTREPRENEURIAL PASSION

Core Affect and Affective Quality

Core affect is generally defined as an internal, free-floating, and objectless neurophysiological state that is represented by the elementary affects of pleasure or displeasure (i.e., valence) and of activation or deactivation (i.e., intensity), in accord with the circumplex model (Watson & Tellegen, 1999). The circumplex model represents different affective states (e.g., excited, happy, upset, tense), which are situated in a two-dimensional plane defined by pleasure-displeasure and activation-deactivation axes. Elation, for instance, is a reflection of core affect that is both highly activated and pleasant. Such affects are elementary because they usually occur without effortful cognitive intervention, and they are experienced regardless of individual, contextual, and cultural differences

(Russell & Barrett, 1999). Individuals vary in the degree to which they characterize the valence and intensity of their affective experiences.

External stimuli such as objects, activities, and contexts are imbued with affective quality. When individuals interact with the external environment, they perceive these external stimuli to hold more or less affective quality (e.g., boring, exciting). While perception of affective quality is an elemental process that is individually dependent, to perceive affective quality is to assess external stimuli that may or may not invoke any affect. Nevertheless, core affect and affective quality are linked in complex ways, and a stimulus's affective quality holds the "capacity to change core affect" (Russell, 2003: 149).

Key Elements of Experiences of Emotion

Russell and Barrett (1999) note that experienced emotions may be conceptualized as prototypical episodes that involve four key elements: (1) appraisals of the affective quality of one or more stimuli in the environment, (2) conscious experience of changes in one's core affect and attributions to antecedent stimuli, (3) overt action readiness or action directed toward or away from the stimuli, and (4) associated engagement of brain and body response tendencies for goal pursuit. When all four elements are present, Russell (2003) calls them exemplars of full-blown or blue-ribbon emotions such as fear and elation. For instance, when an individual on a leisurely hike encounters a bear on a trail, the account of experienced emotion is as follows: the individual's assessment of the bear (stimulus) indicates a danger (appraisal), triggering a change in core affect from pleasant to unpleasant (attribution), followed by an overt behavioral response of flight (action) and associated alertness, sweating, and increased effort directed at reducing danger (goal pursuit). The first two elements, involving the association of external stimuli with changes in core affect through an attributional process, usually are viewed as a core aspect of emotion and are referred to as *attributed affect*. We do not deny that one can experience affect without any attributions to external stimuli (e.g., moods). However, such affects are less relevant in our context.

While appraisals, attributions, attributed affect, and action engagement are often cognitively mediated processes, learning can short-

circuit cognitions, resulting in effortless and automatic behavioral responses that take split seconds (Dolan, 2002). In this case the experience of emotion may occur as automatic affect, as if subconsciously programmed (Baumeister, Vohs, DeWall, & Zhang, 2007). In other cases appraisal of the threats and opportunities posed by novel stimuli may be needed before an overt response or plan for such response is developed. A particularly relevant novel stimulus is feedback from goal-directed behaviors. As individuals execute behaviors in pursuit of goals, they may encounter unforeseen impediments or opportunities that invoke affect. Russell and Barrett (1999) view these encounters as episodes of emotional experiences, since they are triggered by environmental stimuli, dissipate once the individuals' behavioral response facilitates coping, and hence have a beginning and an end.

Neurobiological studies provide initial data in support of the preceding view of emotional experiences (Dolan, 2002; Noel, Van der Linden, & Bechara, 2006). Evidence suggests that the amygdala—a group of neurons located deep in the brain—plays a critical role in linking the external stimulus to the individual's affective state. The amygdala is involved in detecting the salience and relevance of the stimulus and in activating visceral motor structures, such as the hypothalamus and autonomic brainstem nuclei, that produce systematic changes in facial expression and bodily responses usually conditioned by instinctive, social, or cultural learning factors. Researchers characterize the patterned response involved in an emotional episode as a "reactive system" to recognize that it is activated in reaction to external stimuli.

Russell notes that there is "no neural circuit, peptide or other biological marker" (2003: 151) that is unique to any specific affective state. Individuals construct the meaning of novel experiences using a psychological process of categorization, which involves determining the experience's resemblance to stored mental representations of prototypical instances of emotion. The mental representations are usually based on culturally shared concepts, and the categorization is thought to occur via online processing as individuals become conscious of their emotional experiences (Barrett et al., 2007). Researchers believe that, in so doing, individuals provide coherence to the diverse elements that make up their emotional experiences.

Feelings and Experiences of Emotion

Feelings are defined in many different ways (Damasio, 2003). To identify a workable definition for our study, we drew from neurobiology research that provides a physiological basis for defining feelings as a conscious experience of changes in one's core affect that is attributed to external stimuli (like attributed affect) but that engages additional resources for processing, storing, and retrieval on demand. Not all emotional experiences are salient. Changes in core affect that are less salient are less likely to elicit reflection (of the experience's meaning) and integration (with past experiences). When objects or activities involved in emotional experiences are central to an individual's self-identity, effortful reflection on the current experience is likely followed by its integration with past experiences. Such integration is object specific and may be viewed as a network of nodes and linkages in which the experienced and categorized feeling is a key node and is linked to cognitions, motivation, and action tendencies that are tagged by the focal identity associated with the emotional experience (Schwarz & Clore, 2007). As such, salient experiences of emotion strengthen and update the encoding associated with the focal identity.

When stored mental representations of feelings have been effortfully encoded and updated, they are easier to retrieve when needed. The process is individualized and idiosyncratic, leading neurobiologists to view feelings as a "reflective system" that stores accounts of individuals' reflections on experiences of emotion (Noel et al., 2006). Moreover, while feelings can be stirred, activated, or amplified by direct engagement with stimuli, that is not necessary. Feelings can be retrieved as cohesive mental constructions, complete with their network of linkages, long after the antecedent stimuli has ended or receded from the environment. A particularly relevant retrieval process involves anticipatory feelings (Baumeister et al., 2007). People may imagine, desire, dream, or long for engagement in activities involving a focal identity and, in so doing, consciously experience the associated feeling stored from past experiences. Because of their identity salience and their ease of retrieval, anticipatory feelings can produce relatively enduring behavioral engagement.

REFERENCES

- Amabile, T. M. 1997. Entrepreneurial creativity through motivational synergy. *Journal of Creative Behavior*, 31: 18-26.
- Baron, J. N., & Hannan, M. T. 2002. Organizational blueprints for success in high-tech start-ups: Lessons from the Stanford project on emerging companies. *California Management Review*, 44(3): 8-36.
- Baron, R. A. 2008. The role of affect in the entrepreneurial process. *Academy of Management Review*, 33: 328-340.
- Baron, R. A., & Ward, T. B. 2004. Expanding entrepreneurial cognition's toolbox: Potential contributors from the field of cognitive science. *Entrepreneurship Theory and Practice*, 28: 553-573.
- Barrett, L. F., Mesquita, B., Ochsner, K. N., & Gross, J. J. 2007. The experience of emotion. *Annual Review of Psychology*, 58: 373-403.
- Baum, J. R., & Locke, E. A. 2004. The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89: 587-598.
- Baum, J. R., Locke, E. A., & Smith, K. G. 2001. A multidimensional model of venture growth. *Academy of Management Journal*, 44: 292-303.
- Baumeister, R. F., Vohs, K. D., DeWall, C. N., & Zhang, L. 2007. How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review*, 11: 167-203.
- Belitz, C., & Lundstrom, M. 1997. *The power of flow: Practical ways to transform your life with meaningful coincidence*. New York: Harmony Books.
- Bierly, P. E., Kessler, E. H., & Christensen, E. W. 2000. Organizational learning, knowledge, and wisdom. *Journal of Organizational Change Management*, 13: 595-618.
- Bird, B. J. 1989. *Entrepreneurial behavior*. Glenview, IL: Scott Foresman.
- Brännback, M., Carsrud, A., Elfving, J., & Krueger, N. K. 2006. *Sex, [drugs], and entrepreneurial passion? An exploratory study*. Paper presented at the Babson College Entrepreneurship Research Conference, Bloomington, IN.
- Branzei, O., & Zietsma, C. 2003. *Entrepreneurial love: The enabling functions of positive illusions in venturing*, Paper presented at the Babson-Kauffman Entrepreneurial Research Conference, Wellesley, MA.
- Burke, P. J. 2006. Identity change. *Social Psychology Quarterly*, 69: 81-96.
- Burke, P. J., & Reitzes, D. C. 1981. The link between identity and role performance. *Social Psychology Quarterly*, 44: 83-92.
- Burke, P. J., & Reitzes, D. C. 1991. An identity theory approach to commitment. *Social Psychology Quarterly*, 54: 239-251.
- Cardon, M. S. 2008. Is passion contagious? The transference of entrepreneurial emotion to employees. *Human Resource Management Review*, 18: 77-86.
- Cardon, M. S., Zietsma, C., Saporito, P., Matherne, B., & Davis, C. 2005. A tale of passion: New insights into

- entrepreneurship from a parenthood metaphor. *Journal of Business Venturing*, 20: 23–45.
- Carver, C. S., & Scheier, M. F. 1998. *On the self-regulation of behavior*. New York: Cambridge University Press.
- Chen, X.-P., Yao, X., & Kotha, S. 2009. Entrepreneur passion and preparedness in business plan presentations: A persuasion analysis of venture capitalists' funding decisions. *Academy of Management Journal*, 52: 199–214.
- Cova, B., & Svanfeldt, C. 1993. Societal innovations and the postmodern aestheticization of everyday life. *International Journal of Research in Marketing*, 10: 297–311.
- Cross, B., & Travaglione, A. 2003. The untold story: Is the entrepreneur of the 21st century defined by emotional intelligence? *International Journal of Organizational Analysis*, 11: 221–228.
- Csikszentmihalyi, M. 1990. *Flow: The psychology of optimal experience*. New York: Harper Perennial.
- Damasio, A. R. 1994. *Descartes' error: Emotion, reason and the human brain*. New York: Grosset/Putnam.
- Damasio, A. R. 2003. Fundamental feelings. *Nature*, 413: 781.
- Della Rocca, M. 1996. *Representation and the mind-body problem in Spinoza*. Oxford: Oxford University Press.
- D'Intino, R. S., Goldsby, M. G., Houghton, J. D., & Neck, C. P. 2007. Self-leadership: A process for entrepreneurial success. *Journal of Leadership & Organizational Studies*, 13: 105–120.
- Dolan, R. J. 2002. Emotion, cognition, and behavior. *Science*, 298: 1191–1194.
- Elsbach, K. D. 2003. How to pitch a brilliant idea. *Harvard Business Review*, 81(9): 117–123.
- Filion, L. J. 1991. Vision and relations: Elements for an entrepreneurial metamodel. *International Small Business Journal*, 9: 26–40.
- Fishbein, M., & Azjen, I. 1975. *Belief, intention, attitude, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fredrickson, B. L. 1998. What good are positive emotions? *Review of General Psychology*, 2: 300–319.
- Frijda, N. 2005. Emotion experience. *Cognition and Emotion*, 19: 473–497.
- Gartner, W. B. 1985. A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10: 696–706.
- Gartner, W. B., Starr, J. A., & Bhat, S. 1999. Predicting new venture survival: An analysis of "anatomy of a startup" cases from Inc. magazine. *Journal of Business Venturing*, 14: 215–232.
- Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. 1997. Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 42: 750–783.
- Goffman, E. 1959. *The presentation of self in everyday life*. Garden City, NY: Doubleday.
- Goss, D. 2005. Schumpeter's legacy? Interaction and emotions in the sociology of entrepreneurship. *Entrepreneurship Theory and Practice*, 29: 205–218.
- Gross, J. J. 1999. Emotion regulation: Past, present, future. *Cognition and Emotion*, 13: 551–573.
- Haber, S., & Reichel, A. 2005. Identifying performance measures of small ventures: The case of the tourism industry. *Journal of Small Business Management*, 43: 257–286.
- Huy, Q., & Zott, C. 2007. *How entrepreneurs regulate stakeholders' emotions to build new organizations*. Paper presented at the annual meeting of the Academy of Management, Philadelphia.
- Jelinek, M., & Litterer, J. 1995. Toward entrepreneurial organizations: Meeting ambiguity with engagement. *Entrepreneurship Theory and Practice*, 19(3): 137–168.
- Lee, S. Y., Florida, R., & Acs, Z. J. 2004. Creativity and entrepreneurship: A regional analysis of new firm formation. *Regional Studies*, 38: 879–891.
- Liao, J., & Gartner, W. B. 2006. The effects of pre-venture plan timing and perceived environmental uncertainty on the persistence of emerging firms. *Small Business Economics*, 27: 23–40.
- Locke, E. A., & Latham, G. P. 2002. Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57: 705–717.
- Ma, H., & Tan, J. 2006. Key components and implications of entrepreneurship: A 4-P framework. *Journal of Business Venturing*, 21: 704–725.
- Machiavelli, N. 1984. *The prince*. New York: Random House.
- Murnieks, C. 2007. *Who am I? The quest for an entrepreneurial identity and an investigation of its relationship to entrepreneurial passion and goal-setting*. Unpublished doctoral dissertation, University of Colorado at Boulder.
- Murnieks, C., & Mosakowski, E. 2006. *Entrepreneurial passion: An identity theory perspective*. Paper presented at the annual meeting of the Academy of Management, Atlanta.
- Noel, X., Van der Linden, M., & Bechara, A. 2006. The neuro-cognitive mechanisms of decision-making, impulse control, and loss of willpower to resist drugs. *Psychiatry*, 3: 30–42.
- Oettingen, G., & Gollwitzer, P. M. 2001. Goal setting and goal striving. In A. Tesser & N. Schwarz (Eds.), *Intraindividual processes*: 329–347. Oxford: Blackwell.
- Pham, M. T. 2004. The logic of feeling. *Journal of Consumer Psychology*, 14: 360–369.
- Pratt, M. G., & Foreman, P. O. 2000. Classifying managerial responses to multiple organizational identities. *Academy of Management Review*, 25: 18–42.
- Radhakrishnan, S. 1993. *The Bhagavadgītā* (reprint ed.). New York: Harper Collins.
- Roberts, W. R. (Trans.). 1924. *Rhetorica: The works of Aristotle*, vol. 11. Oxford: Clarendon Press.
- Rockwell, I. 2002. *The five wisdom energies: A Buddhist way of understanding personalities, emotions, and relationships*. Boston: Shambhala.
- Russell, J. A. 2003. Core affect and the psychological construction of emotion. *Psychological Review*, 110: 145–172.
- Russell, J. A., & Barrett, L. F. 1999. Core affect, prototypical

- emotional episodes, and other things called emotion: Dissecting the elephant. *Journal of Personality and Social Psychology*, 76: 805–819.
- Schindehutte, M., Morris, M., & Allen, J. 2006. Beyond achievement: Entrepreneurship as extreme experience. *Small Business Economics*, 27: 349–368.
- Schumpeter, J. A. 1951. *Imperialism and social classes*. New York: Kelley.
- Schwarz, N., & Clore, G. L. 2007. Feelings and phenomenal experiences. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (2nd ed.): 385–407. New York: Guilford Press.
- Seo, M., Barrett, L. F., & Bartunek, J. M. 2004. The role of affective experience in work motivation. *Academy of Management Review*, 29: 423–439.
- Shane, S., Locke, E. A., & Collins, C. J. 2003. Entrepreneurial motivation. *Human Resource Management Review*, 13: 257–279.
- Shane, S., & Venkataraman, S. 2000. The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25: 217–226.
- Singh, R. P., Hills, G. E., Lumpkin, G. T., & Hybels, R. C. 1999. *The entrepreneurial opportunity recognition process: Examining the role of self-perceived alertness and social networks*. Paper presented at the annual meeting of the Academy of Management, Chicago.
- Slevin, D. P., & Covin, J. G. 1997. Time, growth, complexity, and transitions: Entrepreneurial challenges for the future. *Entrepreneurship Theory and Practice*, 22(2): 53–68.
- Smilor, R. W. 1997. Entrepreneurship: Reflections on a subversive activity. *Journal of Business Venturing*, 12: 341–346.
- Souitaris, V., Zerbinati, S., & Al-Laham, A. 2007. Do entrepreneurship programs raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22: 566–591.
- Stryker, S., & Burke, P. J. 2000. The past, present, and future of an identity theory. *Social Psychology Quarterly*, 63: 284–297.
- Sundararajan, M., & Peters, L. 2007. *Role of emotions in the entrepreneur's opportunity recognition process*. Paper presented at the annual meeting of the Academy of Management, Philadelphia.
- Vallerand, R. J., Mageau, G. A., Ratelle, C., Leonard, M., Blanchard, C., Koestner, R., & Gagne, M. 2003. Les passions de l'ame: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85: 756–767.
- Ward, T. B. 2004. Cognition, creativity, and entrepreneurship. *Journal of Business Venturing*, 19: 173–188.
- Watson, D., & Tellegen, A. 1999. Issues in the dimensional structure of affect: Effects of descriptors, measurement error, and response format: Comment on Russell and Carroll (1999). *Psychological Bulletin*, 125: 601–610.
- Wilson, N. C., & Stokes, D. 2005. Managing creativity and innovation: The challenge for cultural entrepreneurs. *Journal of Small Business and Enterprise Development*, 12: 366–378.
- Winnen, C. J. 2005. To be or not to be: *The role of passion and obsession in the entrepreneurial process*. Unpublished doctoral dissertation, University of St. Thomas, St. Paul.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. 1993. Towards a theory of organizational creativity. *Academy of Management Review*, 18: 293–321.

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