

Beyond Achievement: Entrepreneurship as Extreme Experience

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ABSTRACT. How do entrepreneurs experience entrepreneurship, and what are the implications? The cognitive and emotional experiences of the entrepreneur as he/she performs the tasks associated with venture creation and high growth have received limited attention from researchers. The entrepreneurial context can be characterized in terms of peaks and valleys, or periods of relatively high pressure, stress, uncertainty, and ambiguity and periods of relative stability and predictability. Three inter-related psychological variables are investigated to determine their applicability in an entrepreneurial context: peak performance, peak experience, and flow. Results are reported of a series of in-depth, structured interviews conducted with two samples of entrepreneurs. Both qualitative and quantitative evidence is provided of the relevance of all three variables to entrepreneurs, with the highest scores for each variable demonstrated by entrepreneurs in high growth ventures. A number of implications are drawn for ongoing research and entrepreneurial practice, most notably in the area of entrepreneurial motivation. The findings suggest that entrepreneurship be approached as a vehicle for optimal human experiencing.

KEY WORDS: entrepreneurship, flow, motivation, peak experience, peak performance

JEL CLASSIFICATION: M13

Final version accepted on July 8, 2005

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Arguably, the dominant paradigm in contemporary entrepreneurship research is the process perspective (Shane and Venkataraman, 2000). Much has been written regarding the nature of the entrepreneurial process and how it can be successfully exploited (e.g., Low and Macmillan, 1988; Shane and Venkataraman, 2000; Zahra and Dess, 2001), yet relatively little is known regarding how individual entrepreneurs actually experience the process. Few insights are available regarding the sensory and emotional elements that come into play within the entrepreneur as the venture takes form and evolves. Although it could be argued that every entrepreneur has a unique experience, it is worth questioning whether there are commonalities in terms of what entrepreneurs are experiencing, how they experience it, and the implications of common experiences for personal and business outcomes.

The experience of creating and growing a venture has been characterized in terms of fairly generic descriptors, such as uncertainty, ambiguity, and stress (e.g., Bird, 1989; Morris, 1998; Mueller and Thomas, 2000). While for some entrepreneurs such characteristics may be permanent fixtures of their venture experience, the more likely scenario is that there is some ebb and flow in terms of these characteristics. Stated differently, it would seem that the entrepreneurial experience contains peaks and valleys. Unfortunately, these peak or high intensity aspects of the experience are not well-understood.

A richer understanding of how entrepreneurship is experienced holds promising implications for scholars as they investigate a wide array of variables surrounding venture creation and growth. A rational model of entrepreneurial decision-making may need to be modified to include an emotional and sensory component (Kunnanatt, 2004). How the work of the entre-

preneur is sensed and felt (e.g., as engaging, confusing, difficult, among other attributes), might influence the performance of both entrepreneur and the venture. It may affect the entrepreneur's propensity to pursue growth, recognize emerging opportunities, or achieve balance between work and family or personal demands. The experience might play a role in determining the manner and extent of strategic adaptation within the venture, the type of management style the entrepreneur adopts, and when and how the entrepreneur exits the venture. Similarly, how the venture is experienced may well influence the entrepreneur's ongoing motives, his/her cognitive processes, and ultimately, his/her own self-concept.

As an experience, entrepreneurship represents a complex and evolutionary phenomenon, and its more salient aspects remain unclear. The purpose of the current research is to explore the manner in which the higher intensity aspects of an entrepreneurial venture are experienced. Three inter-related constructs from psychology would seem to offer promising insights into these high intensity periods: peak experience, peak performance, and flow. Maslow's (1971) notion of peak experience, if applied to entrepreneurship, approaches venture creation and growth as an aspect of self-actualization and optimal emotional functioning. Peak performance concerns situations where individuals are motivated by circumstances to perform at unusually high levels (Privette, 1981). Flow is a positive experiential state where the individual is totally connected to the task and personal skills equal required challenges (Csikszentmihalyi, 1997; Jackson and Marsh, 1996).

The study seeks to assess the relevance of these three constructs in explaining how entrepreneurs experience the venture creation process and, importantly, whether their personal performance is affected by the nature of the experience. It represents a first attempt at addressing the experiential aspects that underlie both the behavioral and process models of entrepreneurship. While the conventional view is that the entrepreneur, at least in part, drives the venture, the question is whether the venture experience also drives or inspires the entrepreneur. Based on a review of the literature, a conceptual model

linking these three constructs to one another and to the entrepreneurial process is presented. To assess the model, a series of in-depth interviews are conducted with a cross-sectional sample of entrepreneurs. The relevance of these three constructs is assessed using both qualitative and quantitative analyses, with specific reference to a series of entrepreneurial events at representative stages of the entrepreneurial process. Theoretical and managerial implications are drawn from the findings.

1. Background

1.1. *Experiencing entrepreneurship*

Experience refers to "the conscious perception or apprehension of reality or of an external, bodily or psychic event" or the "state or result of being engaged in an activity or in affairs" (Webster, 2004). While frequently approached as a noun, experience is also a verb, such that one undergoes some event or activity, or one learns from being exposed to a phenomenon. Dretske (1993) refers to an experience as a concept-free mental state, and distinguishes it from a belief, which he defines as a concept-charged mental state. He further notes (p. 11) "an experience of *x* is *conscious* because, being a certain sort of representation, it makes one aware of the properties (of *x*) and objects (*x* itself) of which it is a (sensory) representation." McIntyre and Roggenbuck (1998) approach conscious experience in terms of thoughts, images, feelings and sensations that occur during an event or activity. Slovic et al. (2002) posit that the experiential mode is intuitive, automatic, natural and based on images to which positive and negative affective feelings are attached. They note (p. 330):

"One of the main characteristics of the experiential system is its affective basis. Although analysis is certainly important in some decision-making circumstances, reliance on affect and emotion is a quicker, easier and more efficient way to navigate in a complex, uncertain, and sometimes dangerous world. Many theorists have given affect a direct and primary role in motivating behavior."

Entrepreneurial ventures are experienced. The process of transforming a mental construct into a functioning enterprise represents a unique type of human experience. The entrepreneurial experience includes the multiplicity of events to which the individual is exposed as he/she moves through the stages of the entrepreneurial process, typically conceptualized as opportunity identification, concept development, resource need recognition, resource acquisition, implementation, management of growth, and harvesting (Shane and Venkataraman, 2000). Unlike many other acts of creation, such as a piece of art, an invention, or a newly constructed building, the entrepreneurial experience is ongoing, where the object being created is a work in progress. In a sense, the entrepreneur continues to have a multiplicity of experiences until he/she exits the venture, adding or changing systems, policies, operating methods, product lines, customers and markets, employees, and other aspects of the venture.

As an evolving creation, the very success of the venture may derive from how it is experienced. Several studies confirm the importance of affect in decision-making (Damasio, 1994), as a source of information (Schwarz and Clore, 1988), in attitude formation (Fazio, 1995), and in motivating behavior (Epstein, 1994). This seems to imply that affective dimensions associated with the entrepreneurial experience might be a missing element in understanding the behavior of entrepreneurs. For instance, to what extent does the entrepreneur make decisions and judgments in an experiential mode (based upon positive and negative affective feelings) rather than a rational mode (based on analysis and reason)? Alternatively, does the entrepreneur treat affect as a heuristic that works in tandem with rational thinking in what has been characterized as "the dance of affect and reason" (Finucane et al., 2003).

While behavioral research emphasizes what the entrepreneur does (e.g., Shane and Venkataraman, 2000), and the cognitive school examines how the entrepreneur thinks (e.g., Baron, 2004), scholarly work on the experiential aspects of venture creation is lacking. Relatively little is known regarding how entrepreneurs actually experience venture creation and growth.

It would seem that two individuals having the same skills, capabilities, and traits, and operating with the same information, may well experience the same venture in very different ways. At issue is not simply whether it is a positive or negative experience, but the nature of the experience itself. The list of potential characteristics of the experience is limitless, with the available research suggesting that entrepreneurs may experience fear (Harrell, 1987), uncertainty (Bird, 1989; Stevenson, 1985), ambiguity (Shane et al., 2003), a sense of achievement (McClelland, 1961), varying perceptions of being in control (Morris, 1998; Mueller and Thomas, 2000), stress (Boyd and Gumpert, 1983; Buttner, 1992), a sense of loneliness (Boyd and Gumpert, 1983), and self-actualization (Vesper, 1998).

Various researchers have noted that entrepreneurial ventures involve peaks and valleys in terms of the intensity and complexity of the pressures and demands placed on the founder (Boyd and Gumpert, 1983; Hornaday and Aboud, 1971; Rabin, 1996). This might imply that there are periods of high pressure and stress, higher relative uncertainty about outcomes, more ambiguity, and less sense of control, and periods that are slower, more stable, and more predictable. Moltz (2003), in describing the entrepreneurial process, uses the metaphor of trying to control a rollercoaster while riding it.

The relative frequency of high intensity periods would seem a function not only of circumstances surrounding the venture itself, but also of the choices made by the entrepreneur (Shane et al., 2003). That is, the entrepreneur is a key player in determining pathways for the venture that result in a higher or lower frequency of high intensity periods, and the degree of intensity. To the extent that such periods are positive experiences or are a source of utility or benefit to the entrepreneur, they become desirable. In this manner, high intensity experiences may become a source of motivation to the entrepreneur.

At issue in the current research is what happens during higher intensity periods, such as when the ability to obtain a key order will make or break the firm, or the likelihood of completing a major contract on time and under budget appears problematic, or a bank loan is about to be called and the firm's payroll cannot be met.

1.2. *Exploring high intensity activities: three psychological variables*

What is it like for the entrepreneur during high intensity periods? Are there particular psychic, sensory, or emotional aspects that define the manner in which individuals experience the pressures and uncertainties that characterize these periods? The field of psychology offers three key phenomena that may be useful in furthering our understanding of the more intense periods that occur when creating and growing a venture. These phenomena are termed peak experience, peak performance, and flow. Privette (2001) suggests that each of these represents a type of integrative human experience, as opposed to a type of human behavior, and that each is a unique aspect of a particular individual and context.

Peak performance can be defined as an episode of superior functioning or reaching the upper limits of human potential as manifested in excellence, productivity, or creativity. It is performance that transcends what normally could be expected in a given situation. Manifestations of efforts that exceed one's predictable level of functioning (Privette, 1981) might include physical strength in a crisis, prowess in sporting events, creative expression in art, intellectual mastery of a problem, or a rich human relationship (Privette, 1982). It is associated with exceptional energy, extraordinary strength, speed and endurance, where athletes rise to a level of performance that seems impossible, almost superhuman (Murphy and White, 1995). The performance is intentioned, as the person has a will to behave in a superior way, but the action seems to just flow out of the person. Experiential discriminators of peak performance include spontaneity, a click of functional autonomy, strong sense of self, fascination, prior interest, involvement, intentionality, and often, peak experience (Privette, 1981). Examples of peak performance outcomes, each of which is an extrinsic motivator, include financial gain, glory, pursuit of personal best, and setting a world record, among others.

Peak performance may affect and be affected by *peak experience*. Peak experience is a prototype of feeling. It is defined as an intense and

highly valued moment or period that surpasses the usual level of intensity, meaningfulness and richness both perceptually and cognitively (Privette, 1983; Privette and Bundrick, 1991). Although peak experience is often the result of a peak performance (Maslow, 1971), the interrelationship of the two is reciprocal and statistically significant. Peak experiences are emotional, highly memorable, and personally significant (McAlexander and Schouten, 1998) and are associated with intense feelings of joy, fun, peace, serenity, exhilaration, happiness (Csikszentmihalyi, 1997; Maslow, 1971; Privette, 1983). They are characterized by personal absorption and immediate involvement, strong focus, singleness of purpose, and self-validation, and can result in self-transformation or self-renewal and a deeper sense of meaning in life (Arnould and Price, 1993; Maslow, 1962; Privette and Bundrick, 1991; Yeagle et al., 1989). Hence they have emotional as well as intellectual components. They can vary in duration, and can be a single event, occur periodically, or be a progression towards an ultimate experience based on numerous optimal experiences that build upon one other.

Flow refers to the psychological state underlying peak performance (Jackson and Roberts, 1992). It is a state of focused energy, a transcendent state of well-being, involving a spiritual dimension and a euphoric sensation and ecstatic moments (Waitley, 1991), and is characterized by total focus and absorption of transcendent awareness (Jackson and Csikszentmihalyi, 1999). Flow is an autotelic experience, one that is intrinsically rewarding that we choose to do for its own sake (Csikszentmihalyi, 1990). It is a positive experiential state where the performer is totally connected to the performance in a situation where personal skills equal required challenges (Jackson and Marsh, 1996). Others have described flow as a mystical experience with exceptional feats of strength and endurance (Murphy and White, 1995), an uplifting event, with a sense of mastery and control or a sense of invincibility. Flow-like states are considered to be similar to hypnotic states (Grove and Lewis, 1996) in which there is a dissociation or detachment from one's surroundings, with total absorption in the present moment, and perceptual distortions such as altered perceptions of time.

In some instances flow enhances performance and contributes to optimal performance (i.e. maximum or greater than maximum performance levels) by allowing one to continue against the odds and overcome fatigue and pain to finish a task or meet a challenge. With flow, nothing extraneous is allowed to interfere, and the person often senses a loss of time and space and self, boundless energy, and a perception of mastery and control. He/she finds purpose and intrinsic reward in the activity itself, especially when the challenge matches the individual's skill. Although being "in the zone" is often associated with a rush (Lewis, 2002), flow does not always involve an emotional high. Qualities of the "zone" include profound joy, acute intuition (almost precognition), a feeling of effortlessness in the midst of intense exertion, feelings of awe and perfection, increased mastery and self-transcendence (Csikszentmihalyi, 1975, 1990, 1997). Conditions necessary for the zone include craftsmanship, devotion and total immersion (Cooper, 1998). These are intrinsically rewarding moments associated with a sense of self-mastery and a spiritual experience. Csikszentmihalyi and Csikszentmihalyi (1988) characterized flow on nine dimensions: challenge-skill balance (e.g. "was challenging but also seemed automatic"); action-awareness merging (e.g. "being in the groove"); clear goals (e.g. "really knowing what you were going to do"); unambiguous feedback (e.g. "receiving feedback from my movements that I was at the right pace"); concentration on the task at hand (e.g. "feel really focused"); sense of control (e.g.

"feel like I can do anything in that state" or "you can't imagine anything going wrong"); loss of self-consciousness (e.g. "doing things instinctively and confidently"); transformation of time; and autotelic experience (e.g. "really enjoyable, may leave you on a high").

There can be a strong reciprocal relationship between peak performance and peak experience (Privette, 1981) that in extreme situations is associated with flow, which in turn enhances performance (see Figure 1). Flow occurs in situations where there is a balance between the challenge of the task and the skills of the person, while peak experience occurs where both challenges and skills lie above the average level. Flow happens during episodes that involve both positive performance and positive feeling, but is not necessarily associated with optimal joy or performance (Privette, 1983). Privette (1986) notes that the antitheses for peak performance and peak experience are failure and misery, respectively. Although each experience is a distinct, positive and subjective experience, the three experiences share many qualities such as absorption, joy, spontaneity, a sense of power, personal identity, and involvement (Privette and Sherry, 1986). The three phenomenological experiences may occur in isolation, such as when a crisis results in peak performance but this is not accompanied by peak experience or flow. However, when a single event involves more than one of the experiences, each offers a different perspective on the event. The most salient features of the three constructs are contrasted and compared in Table I. These features are

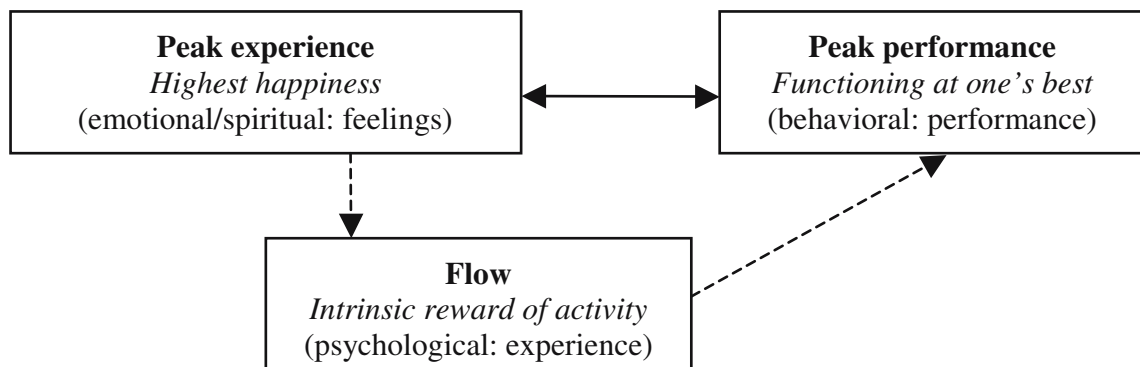


Figure 1. Three inter-related variables.

TABLE I
Contrasting and comparing peak experience, peak performance and flow

	Peak experience	Peak performance	Flow
Prototype construct	Feeling: extreme level of positive feeling	Performance: extreme level of performance	Does not imply, but may include peak experience or performance
Definition	Intense and highly valued moment	Episode of superior (almost superhuman) functioning	Capacity for full engagement in an activity
Distinguishing characteristics	Fulfillment, significance, and spirituality	Full focus and self in clear process	Play, outer structure and the importance of other people
Descriptors	Joyful, transitory, rare, unexpected, extraordinary, cosmic, ecstasy, highly memorable	Spontaneity, functional autonomy, strong sense of self, involvement, intentionality	Challenge-skill balance; action-awareness merging, clear goals, unambiguous feedback, sense of control, concentration
Triggers	Art, nature, sexual love, religion, creative work, exercise/movement, childbirth, music, scientific knowledge, recollection/introspection	Physical strength in a crisis, prowess in sporting events, creative expression or acts, intellectual mastery of a problem	Transcendental/peak/religious experiences, collective ritual, Zen, yoga, meditation
Passive mode	Perceptual/receptive	Transactive/responsive	Active/interactive
Unique quality	Intense feelings of joy, fun, peace, serenity, exhilaration, happiness	Exceptional energy Extraordinary strength Endurance	Intrinsically enjoyable or autotelic experience Transpersonal/mystical associated with fusion and loss of self
Antitheses	Misery	Failure	Not in sync, disjointed
Other people	Companionable and contributing	Not important/relevant; focus is on personal performance	Interactive and often important contributors

helpful in determining when an experience is exclusively peak performance, peak experience, or flow, and when it involves more than one.

1.3. Linkages to entrepreneurship

Researchers have examined these three constructs in a variety of contexts, including competitive sports, whitewater rafting, acting, motorcycling, prayer, encounters in nature, product consumption, and near-death episodes (e.g., Allen, 2002; Arnould and Price, 1993; Dodson, 1996; Pates et al., 2001; McAlexander and Schouten, 1998). For instance, Privette (1981) reports on athletes from a range of sports who describe similar peak experiences characterized by clarity and sharpness of focus, total absorption, a sense of confidence in performance, boundless energy, spontaneous behavior that allows forceful action that is effortless, and a strong desire to perform well. Prior interest and fascination with the activity were also

commonly found. Dodson (1996) provides evidence of a relationship between having a peak experience when mountain biking and incorporating the bike into the individual's extended self. Allen (2002) demonstrates relationships between peak experiences of motorcyclists and both their personal values and a number of attitudinal measures.

Privette (1985) allows for the occurrence of peak performance and peak experience in a work context, and separately Privette and Bundrick (1987) note significant commonalities in the underlying characteristics of both constructs in work and non-work contexts (see also Garfield, 1992). Csikszentmihalyi (1990) cites examples of flow in people's work lives, especially where work is meaningfully related to people's identities and their ultimate goals. He also associates work-related flow events in terms of increasing levels of complexity of challenges and the transformation of opportunities in one's environment into action. Separately, Privette

(1983) suggests flow is especially likely when pursuing endeavors at the frontier of a field. Accordingly, entrepreneurship would seem an especially rich area within which to examine these constructs.

The literature on these three constructs suggests that they are more typically experienced under conditions of absorbed concentration, higher demands, adversity, unanticipated stress, visualized goals, as well as situations where control is possible, when pursuing endeavors at the frontier of a field, and when undertaking activities involving required learning of skills, feedback, high levels of motivation, commitment and self-confidence (Gould et al., 1992; Privette, 2001; Williams and Krane, 1998). The role of stress is particularly noteworthy, in that it must be accompanied by perceived limits that one believes can be transcended. Further, it is important to periodically engage in a process of disciplined recovery from stress (Loehr and Schwartz, 2001). Otherwise, stress is a disruptive factor that can lead to negative, regressive experiences.

These conditions would seem to aptly describe the entrepreneurial context. For the purpose of the current research, this context refers to the activities and events that occur over the stages of the entrepreneurial process, or as a new venture is conceptualized, implemented, grown, and harvested. Our focus is on the inner world of the founder as he/she creates something from nothing and the venture evolves from largely centering on an idea and a single actor to becoming a successful venture with many actors. Moreover, ventures are said to vary in terms of how entrepreneurial they are based on their relative levels of innovativeness, risk, and proactiveness, referred to by Morris (1998) as their entrepreneurial intensity, and their relative growth orientation (Zahra and Dess, 2001).

Accordingly, it is hypothesized that entrepreneurs will meaningfully identify with the concepts of peak experience, peak performance and flow, and that those in a high growth context will tend to do so to a stronger degree than entrepreneurs in a low growth context. More specifically, it is proposed that high-growth situations produce more high intensity situations, such that entrepreneurs have more peak expe-

riences and these enhance personal performance. Peak experiences are accompanied by feelings of joy and ecstasy, and can provide turning points in life. The entrepreneur has an epiphany that changes his/her perceptions of life. Also, in high-growth situations, entrepreneurs are more likely to experience flow and this contributes to higher personal performance. Latent abilities are released for transcendent functioning. Optimal experiences give direction to capabilities. The entrepreneur's own performance is characterized by functioning that is more efficient, more productive and in some way better than his/her normal behavior. Peak crisis responses have a long-term positive impact on the entrepreneur. The entrepreneur emerges with renewed self-awareness.

2. The study

2.1. *Conceptual model*

To ascertain the extent to which these three psychological constructs apply to the entrepreneurial experience, cross-sectional descriptive survey research was undertaken. To guide the research, a conceptual model was developed. As illustrated in Figure 2, the entrepreneur's performance at various stages of the entrepreneurial process sets the context. The entrepreneur has certain expectations about his/her own performance relative to his/her normal performance levels and that of others, based on a number of subjective criteria. The entrepreneur's ongoing response to events that occur during venture start-up and growth impacts the entrepreneur's performance levels. Specifically, a single event (challenging situation) could involve only one variable e.g., either peak performance or peak experience or flow, a combination of any two of these variables e.g., peak performance and flow, or all three variables simultaneously. The variables individually or collectively offer different perspectives on the event. The result is a superior level of performance. Mediating effects or triggers that lead to peak experience and peak performance might include mental preparation, goal setting and motivation, experience, anxiety, a sense of self, and the extent to which the challenging situation threatens the entrepreneur's ego

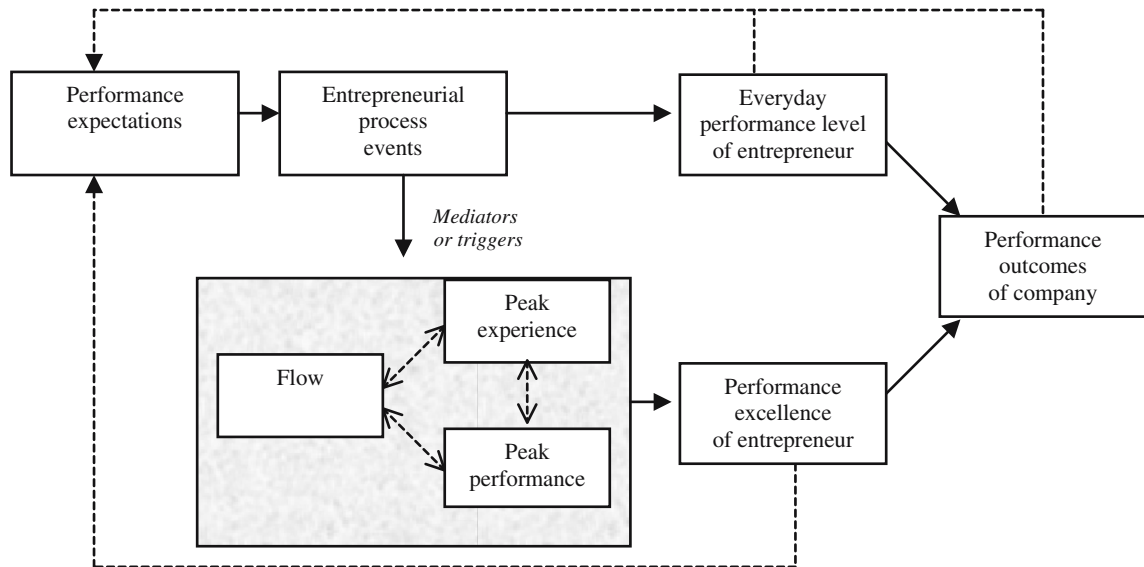


Figure 2. Conceptual model.

or the survival of the company, among others (Privette, 2001). The level of performance effort subsequently results in superior performance outcomes and potentially self-actualization if individual performance exceeds expectations. In the absence of any of the three variables or in the event that the entrepreneur's performance merely meets expectations, the result is average performance and satisfaction.

2.2. Methodology

A series of structured personal interviews were conducted with two samples of entrepreneurs. The typical interview lasted approximately one hour and was conducted at the entrepreneur's business location. The survey instrument included qualitative and quantitative elements. A set of open-ended questions were used to determine normal or typical levels of performance in performing the work of an entrepreneur, assess whether respondents could recall incidents or experiences where they performed at unusual or superlative levels and, if so, to characterize the nature of those experiences. Other questions explored the relevance of being "in the zone", experiencing moments of harmony, getting "a rush", and experiencing

"highly valued moments" when performing entrepreneurial tasks.

In addition, the instrument included thirty-four scaled items from psychometrically validated scales to measure flow (Jackson and Marsh, 1996; Privette and Bundrick, 1991), peak experiences (Dodson, 1996; Privette and Bundrick, 1991), and peak performance (Privette, 1982). These items were accompanied by a 5-point strongly agree–strongly disagree response scale. Privette and Bundrick (1991) have conducted psychometric studies to support construct validity. Reported reliabilities (Cronbach's alpha) for these three sub-scales have ranged from .75 to .95. Finally, respondents were asked to provide information on personal (age, gender, education) and business (products, organizational form, age, size, growth rate) characteristics.

Carland et al. (1984), Delmar et al. (2003), and others have drawn a distinction between small businesses and entrepreneurial ventures, where the latter are characterized by goals of profitability and growth, and employ innovative strategic practices. Because of its emphasis on growth and innovation, and the accompanying peaks and valleys in terms of activity levels, pressures, and uncertainties, the entrepreneurial venture would seem an especially conducive environment for producing peak experiences,

encouraging peak performance and enabling flow. Accordingly, and for comparative purposes, a total of 140 in-depth interviews were conducted with founding entrepreneurs from 70 high growth and 70 low growth enterprises.

The high growth sample was selected from a list of rapid growth companies prepared by the Chambers of Commerce in three geographically distinct metropolitan areas, while the low growth sample was drawn from the general Chamber memberships. In each instance, the founder was contacted by telephone prior to the field interview to solicit participation and verify the firm's growth orientation. The distinction between high and low growth firms was based on measures of growth aspirations and reported growth rates, together with observable indicators of growth (e.g., market definition, scope of operations, financing structure). High growth businesses demonstrated strong growth aspirations, served regional, national or international markets, and were often equity financed. They reported a peak in annual growth rates beyond the first two years ranging from 51% to 500%. While many were high tech firms, this group also included restaurant chains, specialized manufacturers, and logistics management companies, among others. Alternatively, low growth businesses operated in local markets with one or a few locations, most often as retail and service firms, relied on self, family and friends for start up capital, and reported annual growth rates beyond the first two years (revenues) below 25%.

A sample profile of respondents' organizational and personal characteristics is presented in Table II. The large majority of the firms were privately held (94%), organized as S- or C-corporations (44% and 34%), with the major proportion of equity owned by the entrepreneur (in 62% of the organizations, entrepreneurs owned > 50% of the equity). Percentages of firms were fairly evenly distributed in years of operation, ranging from 22% of those < 3 years old to 14% of those > 30 years of age. A good number of firms (73%) had ≤99 employees and most (54%) reported sales revenue between \$1 and \$10 million. Respondents were mainly recruited in metropolitan areas of the Southeast (24%), Northeast (28%), and Midwest (37%) regions of the U.S. The typical respondent was a male

TABLE II
Profile of organizational and personal characteristics of respondents (*n* = 140)

Characteristic	Choice set	%
<i>Organizational characteristics</i>		
Company location	Northeast	28
	Midwest	37
	Southeast	24
	Other	11
Organizational form	Sole proprietor	6
	S-corporation	44
	C-corporation	34
	Non-profit	1
	Partnership	3
	LLP	1
	LLC	11
Nature of ownership	Public	3
	Private	94
	Franchise	2
	Other	2
Entrepreneur's % of firm's equity	< 25	15
	25–50	23
	51–74	13
	75–99	12
	100	37
Years in operation	< 4	22
	4–9	22
	10–15	17
	16–30	24
	> 30	14
Employees	< 20	45
	21–99	28
	100–500	18
	> 500	10
Sales revenue (millions \$)	< 1	15
	1–10	54
	11–50	15
	51–100	5
	101–500	7
	> 500	3
Highest annual growth rate	< 20	25
	21–50	28
	51–100	28
	101–500	15
	> 500	4
Firm type	High growth	49
	Low growth	51
<i>Personal characteristics</i>		
Gender	Male	89
	Female	11
Ethnicity	Caucasian	90
	Other	10

TABLE II
Continued

Characteristic	Choice set	%
<i>Organizational characteristics</i>		
Age	< 25	2
	25–35	7
	36–45	31
	46–55	29
	> 55	32
Education	Some high school	2
	High school graduate	5
	Some college	11
	College graduate	37
	Advanced degree/study	46

(89%), Caucasian (90%) between 36 and 55 years of age (92%) with a college or advanced degree (83%).

3. Analysis and results

3.1. Qualitative results

Let us first consider how respondents addressed the open-ended questions. The entrepreneurs generally viewed themselves as high performers relative to other business professionals. The most frequently mentioned criteria used by respondents in defining high performance included work “commitment level” (e.g., more than 100%, seven days a week), “making sacrifices”, “passion”, the “ability to anticipate/react quickly/seize opportunities”, “knowledge of the business”, and “making right choices”.

More noteworthy was a strong tendency to identify with the concepts of peak performance, peak experience and flow. The large majority (82%) of entrepreneurs were clearly able to cite extraordinary experiences where they performed at truly superlative levels in their ventures. When describing the words that best describe how the entrepreneur felt when functioning at his/her personal best in their venture, the most frequently cited terms were excitement/enthusiasm, adrenalin/energy, joy/elation/triumph, pride, confidence, focus, awareness, and fear. In describing flow events, respondents regularly used such terms as natural, perform on instinct, clarity of purpose, being “on” in an unexpected

way, in control, magical, everything just starts going right, you forget time and space, everything clicks, and total focus.

Representative examples of respondents’ descriptions of *peak performance* incidents, as well as *peak experiences* and *flow* are shown in Table III. As illustrated in the table, respondents recalled incidents that can be explicitly linked to various stages of the entrepreneurial process. In some instances, only one of the three constructs was in evidence, while in others two or all three were experienced simultaneously. The range of examples provided by respondents suggests that incidents of high emotional intensity and intense physical or mental performance were associated with all phases of the venture process.

A different selection of examples from the interviews illustrating each of the components in the conceptual model (see Figure 2) is provided in Table IV. Incidents during which respondents could recall experiencing peak performance, peak experience or flow usually involved intense activity, tight deadlines, extreme pressure and lots of change. Some of the more frequently recalled events included sales presentations, negotiating a deal and IPO road shows. The presence of the three constructs and the resultant impact on performance effort are confirmed in the examples cited. *Peak performance* was often described in terms of a roller coaster experience in which extreme highs were followed by extreme lows. Three words most often mentioned as being part of peak performance events include confidence, determination and exhilaration. A number of respondents expressed the feelings they experienced during an event in a cognitive manner with words such as vision, clarity of action, keen awareness and focus. By contrast, others explained that “awareness is almost tangible. . . everything you touch is magical”.

Factors that triggered performance included setting goals, passion, optimism, competitive spirit and strong desire to win. Several respondents mentioned challenges on the scale of David against Goliath and fear of failure as key factors resulting in enhanced performance effort. Moreover, respondents could clearly identify when their own personal performance was superior to normal, everyday levels. In periods of more typical performance, they were

TABLE III
Examples of peak experience, peak performance, and flow at particular stages in the entrepreneurial process

Step in process	Associated with	Representative example from respondent interviews
Opportunity	Peak performance & peak experience & flow	“We had proposed to do an equipment management program for one of the largest EPA contractors. And this program concept had been my idea originally many, many years before. I had been talking about it and talking about it and in fact I made a presentation to this company probably four years before they came back to me and said we remember the conversation and would like you to come in and talk to us about it. And we made the presentation and were awarded the proposal. No one was doing this in the business. We had never done it either but I knew what we could do and how we should do it. The excitement started with me writing the proposal. And it was a government contract so they had to go out for bids, but I knew there was no one else who was going to respond. I was probably going 20 hours a day for probably ten days. And it was just wild. I was coming into the office at 3:30 in the morning and just typing away creating stuff. I had the jazz music playing and I’m getting choked up, it was so cool. Ah, it was great! What I was doing was I was creating and I had jazz music going and was just a maniac and the people could see”
Concept	Peak experience	“Let me think. . . maybe there are two of them that are slightly different. One was more for the enterprise, one was more personal. At XXXX apart from developing a \$100 million business in 3 years we made it a pledge when we started the company that we will be very connected to our community in Washington DC and we had our own charitable foundation – that we set up – our employees contributed a parallel deduction to this and made our vendors do matching gifts and we supported a number of charities very early on. And. . . the Washington Post presented me with a community service award. . . you know some big black tie thing in Washington. . . and I guess that felt very good because not only were we successful in promoting our business and pushing the industry, and creating a great environment from a polluter standpoint but we also were recognized for all this effort and got a community service award from the Washington Post at a big black tie dinner of 3,000 business leaders in Washington. Yes that was quite a moving experience. . . unexpected too”
Resources	Peak experience	“...but it probably goes back to the day when I met with my banker and she said we’re not sure where this is going and the way I read that is that she not only didn’t believe in me but she didn’t believe in the business. At that time I probably had 30 employees. It meant that I would have been a failure to these 30 people that had invested their lives with me. And that bothered me overwhelmingly. Instead of saying ok, ok, though, I took it to the next level. The negative situation triggered a response from my end that encouraged me to find alternative sources of financing which I did. And I found it in two people who believed in me. And I think they said “you know, we’re not only betting on your company’s assets but we’re betting on you as a human being, as a positive credit risk and that’s how we’re making our decision.” Nobody had ever said that to me in my career. One of the greatest levels of satisfaction I ever had was when I found the note, which was a two-page document believe it or not for a multimillion dollar loan, and I said “is this all I sign?”. And they said “that’s it, we believe in you.” ... When I signed my name, it was absolute euphoria to me because I was ridding myself of an organization who I felt didn’t believe in me as a person, that didn’t believe in my dream, my goals, my skills, and I was aligning myself with a partner, a team that did believe in me as a human being, as a person, as an organization. It was absolutely fantastic. On the payments thereafter I felt a high satisfaction of making each one. That was a significant emotional experience”
Management	Peak performance	I think it’s the competitive spirit. It’s the – figuring out a way to win. It’s a belief that there’s a solution for every problem, the adrenaline that kicks in when you have something going that can be tremendously successful. Whether it’s negotiating a deal, getting a contract, we have an automotive supply business where we get into bidding and negotiations with major auto manufacturers for machine parts they have. We got a couple of major contracts that we’ve won because ... it’s hard to explain. There are certain situations where the game is on the line. You have to take your thinking process and gamesmanship to another level”

TABLE III
Continued

Step in process	Associated with	Representative example from respondent interviews
Growth	Flow & peak performance & peak experience	“It very much applies. You could be having a presentation to a customer or a prospect that you hope to make into a customer and everything starts going right and you just forget time and space and everything and it just may be going well. I’d say that is in the zone and you’re just going on instinct and its not rehearsed or anything like that and you’re just doing the right thing, saying the right thing at the right time. I think another aspect of that is also in the technology area. . .we are developing very sophisticated software and there are times where we just make huge strides in advancing the technology in a very short period of time and other times we are just banging our heads against the wall for months. That again, you feel like you’re in the zone and everything is going right and what you’re doing. . .customers see it and they go crazy over us because you just advanced the state of the art. So there are periods where I think everything is just clicking and it feels wonderful and just natural and don’t even need to think about it”
Harvest	Peak performance	“We were trying to get an IPO done and at the beginning of 1996 the climate was fairly good for getting an IPO done and so we put together a blue chip team of underwriters Solomon Bros and Montgomery Securities and our lawyers and accountants worked getting the IPO prospectus finished. And the day before we had to start the road show marketing of the offering the markets just collapsed. And so the underwriters said no, we are not just going to go out and market the offering. . .we’ve got to wait. . .the decision we made at the time was to get another underwriter and set Sept 1st as the date we were going to try to scale it and it was part of that decision we did not fold the growth back, so it was a very risky decision. . .and we found a new underwriter, Freeman and Ramsey in Washington and sure enough the economy did come back after Labor Day and we were the first ones to get the IPO on a road show and we got our \$60 million financing done at the end of September. So our company stayed on the same path and enjoyed this stable operating investment when we got the \$60 million in operating capital we were really ahead So during that time period it was holding everything together and keeping the current investors in line, keeping the company optimistic that the future was going to provide some capital and figuring out a way to get the financing done and like I said, conventional wisdom was that it couldn’t be done. So we got it done”

not aware of intensely emotional moments or the presence of an adrenaline rush. They noticed substantial increases in work commitment level, energy levels, willingness to make sacrifices, as well as an ability to anticipate potential outcomes and react quickly. Interestingly, respondents also mentioned performance excellence in terms of outcomes related to the company when there were whole periods of intense activity rather than more isolated intense events. Specific company performance measures that signaled exceptional performance were growth spurts, higher sales levels and improved financial results. Additionally, the effects of peak performance, flow or peak experience on performance levels were reinforced by the positive emotions generated during the event as well as immediate feedback from others. One respondent expressed this as follows: “you get the right information,

present the right features and benefits at the right time with the right chemistry . . . I can just feel it. . .you get instantaneous feedback”.

One respondent specifically mentioned the role of peak experience in terms of self-actualization through his venture.

“I was selected to be on the cover of Forbes magazine with eight other people – Meg from eBay, Bill Hambrecht, the guy that started Ideallab, Bill Gross, and that was emotional because it was recognition for me that reflected back. . .my family was proud, my kids were proud about that. . . a tremendous sense of accomplishment and pride. . . And for me personally it was more a sense of after fifteen years when you get some kind of self-actualization – you work yourself up and get on the cover of Forbes magazine and your eldest daughter goes and buys 10 copies and keeps them around the house. . .”

TABLE IV
Examples of experiences that support elements in the conceptual model

Component in model	Representative example from respondent interviews
Performance expectations	"I think it's the desire. I just hate to lose. I absolutely hate to lose whether it's an order. Whether it's hiring somebody that you really want to hire. Whether it's getting excited about providing opportunities for people who want to work for you. And I guess it's just the passion of success is so significant and maybe driven by the fear of failure. I mean I think both of those push you in the same direction but two at the other end of the spectrum feelings. But both drive, I believe, in a high energy entrepreneur"
Entrepreneur process events	"...and some issue we faced and the conventional wisdom would have said: how did we ever make it out of that? How did we ever make that decision? How did we get that customer to sign on at that period in time...again there is this unexplainable mustering of resources to be able to lead through and make decisions during these very troubling and turbulent times. And...yeah I do...you look back and you think...how did we get into that, how did we get that customer to be a reference, how did we ever solve what looked like an insurmountable technical problem"
Peak experience, flow and peak performance	"Senses are heightened...you are prepared and know your stuff...you feel like nothing can disrupt you and you can overcome everything...I would do road show presentations and I had them feeding out of my hand...energy level is almost unnatural...you are fully engaged mentally and typically emotionally...you feel ethereal, untouchable, impervious..."
Performance excellence (not normal performance)	Superior performance in terms of the company "...The criteria in my mind would be the company's results a reflection on the entrepreneur that is leading the company. In this particular marketplace, we are a high-tech company. In the high-tech market there are an awful lot of companies that have gone out of business or who are in really deep trouble financially. So, I look at that and now there are others who are growing and doing well but they are in a small minority. So, I think the fact that we have survived this period, we're growing, we're getting good results, we have low attrition rates, people like it here. All the criteria I would use on stability, growth, and results of the company's efforts would say you have to have someone who is making the right decisions and doing the right thing" Superior performance of the entrepreneur "Performance is measured only by results. I'm in top 10–20%, minute and detail elements in which performance is measure. The ability to make quick decisions and quality decisions. My company is one of the best...I call it analysis with speed. It is easy to have the speed and not the quality analysis and it is easy to have analysis but no sense of urgency. That generally delivers higher throughput...ability to do more in less time. Common sense, analysis with speed, and the last thing is the ability to work on 80/20. More than 20% of the things on the agenda deliver 80% of the results. That's how you hire, drive hire...there are 24 hours in a day, no one can work more than 24 hours, no one can work productively more than 16 hours I believe on a consistent basis. That's where these plateaus are. I work around 12–14 hours a day effectively. That comes to about 70 hours a week, after which my effectiveness goes away. So the challenge is how to do what other people do in 140 hours in 70 hours"
Meet performance expectations versus exceed performance expectations	"In a negotiation with capital providers I took a capital structure that would have had me own 51% of the company along with a couple of partners, and the venture firm would have had warrants for 49% of the company. We would have had to invest 1 million dollars based on projected rate of return 30% annually. What I did was negotiated the warrants away so we had 100% ownership sub-debt to the venture firm at a maximum annual return of 25% to the venture firm. We purchased a business that had a value of 4 million with 500 k in cash. The rest was with various forms of debt. We then turned that business around to a point that one year after we purchased it the 4 million business was worth 15 million. We had paid off all the debt and taken out the entire capital structure. That provided us with free cash flow that financed the acquisition over the next four years of an additional 15 radio stations. And ultimately was the basis for creating a business that was later sold six years out for 200 million on a 500 k investment. It was above average. It was a very intense negotiation with experienced bankers and venture capitalists that led to a dramatic change in the terms that they were proposing, still getting the deal done. Literally quadrupled what became an almost infinite rate of return"

TABLE IV
Continued

Component in model	Representative example from respondent interviews
Feedback from self and others	"...being able to stand up in front of a group and verbally walk them through slowly and precisely answer questions they field, and be able to respond quickly and adept on your feet to criticism and being able to modify that plan in your head and on your feet and explain to them how you would do that to accomplish their desired goals. Modifying layouts of streets or access points or landscaping plans so that they all of a sudden have comfort with it and being able to achieve that goal of approval on the development plan very quickly, and in a sense effortlessly. Because you do it over and over again you develop a level of comfort with talking about things like this at a high level, not just say, well here's the plan and how I'm going to do this, but here's the plan, now let me walk you through it and explain what you're going to see when we drive in and how it plays out and how it's going to benefit the overall community, how it's going to serve the residents, and enhance what you have around and expand on that and have them start to get excited about it"

3.2. Quantitative results

The scaled measures of the three constructs were then evaluated. To assess the internal consistency of the items used to measure peak experiences (12 items), flow (12), and peak performance (10), corrected item-total correlations were examined for each scale. Items with correlations $< .35$ were eliminated from further analysis. This procedure resulted in deleting two items from the peak experience scale, "I was totally absorbed in the task at hand and lost a sense of time" and "My business seemed like it was a part of me." Four items were deleted from the flow scale: "I did things instinctively and confidently without having to think about it," "It was no effort to keep my mind on what I was doing," "My goals were very clear to me and I knew what needed to be done," and "I was not concerned with what others may have been thinking of me." Three items were also deleted from the peak performance scale: "I felt compelled to continue until finished," "My performance was enhanced because it was an emergency/crisis situation," and "I was aware that others were paying attention."

Next, responses on the remaining scale items were summed for each of the constructs and individual item correlations with constructs they purport to measure were compared to their correlations with other constructs (cf., Bearden et al., 1989; Tian et al., 2001). Items not significantly (P 's $< .05$) correlated higher with intended constructs were candidates for deletion (cf., Bruning and Kintz, 1997). This procedure

resulted in deleting only one flow item, "I felt I understood something new and important as a result of the experience," that was highly correlated with the peak experience scale.

Cronbach's alpha (α) was used to assess overall scale reliability. Applying the criterion of .70 for satisfactory reliability (Nunnally, 1978), computed α 's of .73 for flow, .85 for peak experiences, and .70 for peak performance demonstrated reliability adequate for the analysis to proceed. Items surviving the procedures outlined above were summed to form composite measures of their respective constructs. Descriptive statistics for included items along with a summary of scale reliability is provided by construct in Table V.

Mean scores on each of the constructs were relatively high for the overall sample (see Table V). These means compare favorably to those reported in studies of the three constructs in non-business contexts (competitive sports, mountain biking) (e.g., Privette, 1981; Dodson, 1996). An attempt was then made to determine whether the high growth context, ostensibly with its greater frequency of high intensity or peak periods, resulted in higher mean scores on the three constructs than the low growth context. A multivariate procedure that retains all available information regarding the constructs was employed. Using a series of individual t -tests would preclude the possibility that correlation among the constructs as a set provides evidence of overall group differences (Hair et al., 1998). Theoretical descriptions of the three constructs

TABLE V
Descriptive statistics and reliability for the composite scales

Item/scale	Mean	Standard deviation	Item-total correlation	Alpha (α)
<i>Peak experience:</i>	36.67	6.61		0.85
The experience was a highly valued moment	4.39	0.73	0.41	
The experience made me reflect on who I really am	3.50	1.01	0.60	
I felt all-powerful joy	3.85	0.96	0.57	
I felt a sense of completeness after the incident	4.03	0.87	0.65	
Words are not enough to describe the experience	3.53	1.03	0.62	
I had confidence in myself that I didn't have before	3.46	1.14	0.45	
The experience was emotionally unlike normal work or life experiences	3.70	0.98	0.62	
The experience stands out in my mind because it was so emotionally intense	3.80	1.02	0.51	
Experience caused me to feel differently about myself	3.12	1.14	0.59	
I discovered new things about myself	3.28	1.11	0.58	
<i>Flow:</i>	26.48	4.12		0.73
The challenge and my skills were at equally high level	4.11	0.81	0.46	
I was very aware of how well I was performing	3.98	0.92	0.41	
My total focus and attention were on the task at hand	4.25	0.80	0.42	
It felt like time stopped while busy with my activities	3.75	0.95	0.45	
I find experiences like this one are their own reward	4.19	0.91	0.48	
I felt transformed by the experience	3.30	1.13	0.46	
I felt I could do anything and nothing could go wrong	2.90	1.13	0.42	
<i>Peak performance:</i>	24.02	4.33		0.70
The ordinary sense of things faded	3.37	0.93	0.41	
It seemed things went right without any special effort	3.23	1.23	0.45	
I found myself determined to do better than usual	3.86	1.02	0.41	
Reality was more real than usual during the incident	3.28	0.95	0.57	
My strength came from an unfamiliar source	2.77	1.14	0.35	
I thought of nothing but what was happening at moment	3.60	1.05	0.35	
My performance was more spontaneous and effortless	3.90	0.86	0.37	

suggest much commonality (see Privette, 1983 for a review) and Bartlett's test of sphericity ($P < .00$) confirmed the existence of significant inter-correlation. Consequently, a one-way Multivariate Analysis of Variance (MANOVA) was performed to test for significant ($P \leq .05$) overall differences and any univariate effects on individual constructs. For the analysis, group differences were considered as two levels of one independent factor and the three constructs as a set of related dependent measures.

Results of the MANOVA are presented in Table VI. Because the test is directional, that is respondents classified as high growth entrepreneurs ($n=68$) are expected to outscore those who are low growth ($n=70$), P -values for a one-tailed test are reported. The multivariate Wilk's lambda [$\lambda = .93$] used to assess the overall effect of the independent variable on the set of dependent measures was significant ($P = .02$).

Univariate F-tests were used to determine which of the constructs contributed to the overall difference. Observed differences for the group comparisons are significant (P 's $\leq .03$) for all three of the constructs. An inspection of the group means clearly shows a pattern of response that is higher for entrepreneurs of high growth compared to low growth businesses.

A number of other MANOVA's were performed to test for group differences on such organizational characteristics as type and location of the company, growth rates and revenue achieved, size of the company in employees, number of years in operation, and the percentage of equity respondents had personally invested in the company. Differences in response were also examined with regard to respondents' personal characteristics of gender, age, education, ethnicity, and whether they perceived themselves as a high performer or not.

TABLE VI
MANOVA results for high growth versus low growth subgroups

Dependent variable	Mean	Standard deviation	<i>F</i>	<i>P</i> -value*
Peak experience:			8.05	<0.01
High growth	38.54	5.56		
Low growth	35.23	7.01		
Flow experience:			5.17	0.01
High growth	27.43	4.25		
Low growth	25.76	3.90		
Peak performance:			3.85	0.03
High growth	24.89	4.33		
Low growth	23.36	4.25		

Wilk's lambda $\lambda(3,119) = .93$, $P = 0.02$.

Bartlett's test $\sim \chi^2(3) = 128.16$, $P < 0.00$.

*One-tailed test of significance reported.

An overall significant effect ($\lambda = .93$, $P = .04$) was found for ethnicity. Significant univariate comparisons indicated mean differences in response that were higher for Caucasians versus others on two of the constructs, peak performance and flow (P 's $\leq .05$ for a two-tailed test), but not on peak experience ($P = .46$). The number of subjects in subgroups is not restricted in MANOVA, so the procedure is appropriate even with the disproportionate number of Caucasians to all other ethnicities combined (Finn and Mattsson, 1978). For the rest of the group comparisons, none of the mean differences were large enough to be statistically significant, suggesting that respondents' identification with the constructs is similar along these characteristics.

4. Conclusions and implications

The results of the current study suggest that sensory and emotional elements can play a prominent role in entrepreneurship. Specifically, the findings are promising in demonstrating that peak experience, peak performance and flow are salient aspects of the entrepreneurial context. The process of achieving success in an environment characterized by stress, a multiplicity of obstacles and demands, and uncertainty regarding outcomes can produce a type of peak performance. Further, the entrepreneur can find such performance to be rewarding or self-actualizing, resulting in a peak experience. He/she periodically experiences a state of flow when applying personal

skills and efforts towards some of the more challenging demands of a venture.

These findings have implications for entrepreneurial motives. Motives associated with entrepreneurship, such as achievement, drive, and egoistic passion, may be especially relevant during peak experiences, in that high levels of energy and stamina, a desire to meet challenging goals, and a love of the work enable the entrepreneur to function at peak levels (e.g., Morris, 1998; Shane et al., 2003). Further, entrepreneurs are more driven by achievement than extrinsic rewards such as money, while entrepreneurship offers a variety of intrinsic rewards (Bird, 1989; McClelland, 1961). The findings here shed light on the nature of these intrinsic rewards and manner in which they are experienced. In essence, both researchers and practitioners may find it relevant to approach entrepreneurship as a vehicle for self-actualization. Dodson (1996) notes that a defining characteristic of a peak experience is the renewal of self and a deeper sense of meaning and purpose in life. This perspective is consistent with Csikszentmihalyi's (1990) suggestion that work undertaken as a flow activity is the best way to fulfill human potentialities. Such an approach would represent a departure from the traditional emphasis on entrepreneurship as a vehicle for wealth generation, job creation, economic development, and innovation.

The pursuit of an entrepreneurial venture is an evolutionary process involving a multiplicity

of decisions before, during, and following the actual start-up of a firm. Multiple motives likely drive the entrepreneur during this process, and these motives might be expected to evolve and change as a venture unfolds. The entrepreneurial process itself, when a positive experience, can become a source of these motives. Specifically, where the entrepreneur achieves peak performance, has a peak experience, or encounters flow, the corresponding sense of meaningfulness, fulfillment, self-validation, richness, or joy may become an end in itself. To the extent that this is the case, the entrepreneur becomes further engaged in the venture, producing further growth, or is keen to start additional ventures. To some degree, then, entrepreneurship becomes its own reward.

While the successful pursuit of entrepreneurship inherently involves rational decision-making processes, we believe that emotional and sensory elements are important interwoven elements in explaining the way an entrepreneur thinks and acts. Hence, the occurrence of peak performance, peak experience and flow might be expected to influence the entrepreneur's cognitive processes (Baron, 2004). For example, Brockner et al (2004) discuss the entrepreneur's 'regulatory focus', or the tendency to approach the regulation of one's own behavior from a promotion versus a prevention orientation. The three phenomena examined in the current study would seem to encourage the regulation of one's behavior more from the vantage point of opportunity achievement (promotion) rather than loss avoidance (prevention), such that more opportunities are pursued. They might also correlate with levels of entrepreneurial alertness, defined as a motivated propensity to formulate an image of the future (Gaglio and Katz, 2001). Baron (2004) posits a positive relationship between alertness to previously unrecognized opportunities and a person's relative emphasis on attaining positive outcomes over avoiding negative outcomes. To the extent that the individual finds peak experience, peak performance and flow episodes to be enjoyable or fulfilling, these phenomena would also seem consistent with a greater emphasis on achieving the positive rather than avoiding the negative. Positive achievements are typical outcomes of these psychological phenomena.

Another linkage to cognitive processes can be found in signal detection theory (Swets, 1992). Entrepreneurs are thought to be more concerned with recognizing stimuli that are present than with correctly concluding stimuli are not present. Peak performance could also contribute to the entrepreneur's proficiency at recognizing the presence of stimuli, and especially in assessing risks, in that the individual is experiencing more spontaneity, a stronger sense of self, greater fascination, and higher involvement. Further, the presence of such cognitive biases as overconfidence and the willingness to endure sunk costs would seem consistent with the high level of absorption and immediate involvement, strong focus, singleness of purpose, and sense of infallibility associated with flow.

The results of the study also suggest that peak performance, peak experience and flow are highly inter-related variables in an entrepreneurial context. Each variable has contrasting as well as common aspects, all of which may not be found in any one event. A diverse mix of examples were provided by the entrepreneurs in our sample, sometimes with the same event used to describe all three variables, while in other cases completely unique events were used to describe each of the variables.

It is also noteworthy that the three variables apply both to low and high growth ventures, but more so to the latter. While high growth entrepreneurs strongly identified with the notions of peak experience, peak performance and flow, so too did a large number of the lower growth entrepreneurs. Growth contexts likely create more high intensity periods, heightening the tendency to achieve peak experiences, peak performance and flow. However, the very nature of the entrepreneurial process, and the demands of creating something from nothing, owning one's venture, and taking personal responsibility for results, may contribute as much or more to the ability to experience the three variables than does rapid growth per se.

Given the extensive emphasis placed on the traits, values, and skills of entrepreneurs in the extant literature, it would seem especially relevant to explore whether individual differences affect the ability to experience peak performance, peak experiences, and flow, on the one

hand, and whether interactions between personal characteristics and these three variables affect organization performance. The degree of fit between entrepreneur and venture may affect and be affected by the ability to realize peak experience, peak performance and flow. It may also be valuable to revisit the nature versus nurture issue as it applies to the achievement of peak performance levels in entrepreneurship.

A key question concerns the extent to which entrepreneurs can better prepare themselves to experience peak moments and peak performance, and whether such events can be created, engineered or managed. For example, is it possible to reengineer the sub-conscious/unconscious to eliminate inhibiting influences during periods of intense pressure? By relying on mechanisms such as letting go and learning to trust complex subconscious mechanisms, can the entrepreneur open the way for instinct and intuition? Can entrepreneurs make their own peak performance a frequent event? The joys of being in the zone can serve as a motivational tool that encourages entrepreneurs to push their performance to higher levels and achieve subsequent contentment and success. It would seem that entrepreneurs are able to enhance their cognitive capacities, most notably their focus, time management, positive thinking, and critical-thinking skills (Loehr and Schwartz, 2001). They must attempt to break the linearity of goal-oriented activity. Peak performance training programs can include relaxation, imagery, goal setting, concentration and cognitive self-management. Meditation and other non-cognitive activities can slow brain wave activity and stimulate a shift in mental activity from the left hemisphere of the brain to the right. The beneficial effects of self-management behavioral strategies (e.g. mental imagery, self-dialog on performance as a result of enhanced cognitions, behaviors and affect) have been supported in a variety of sporting and business contexts. Manz et al. (1988) found that thought patterns of higher performing managers differed significantly from those of lower performing managers. It would seem that the exhilaration of peak performance can be attained by learning from athletes how to combine physical abilities, skills and training with mental preparation that includes relaxation techniques, focus, concentrate, and

emotional/psychological as well as spiritual dimensions. An integrated model of high-performance considers the body, the emotions, the mind and the spirit (Loehr and Schwartz, 2001).

A related issue concerns the concept of emotional intelligence (Goleman, 1995), or the ability of a person to use emotions as a guiding tool for interpersonal effectiveness. A person with high emotional intelligence is able to channel emotions constructively and use emotions as motivational support for the actions of the rational mind (Kunnamatt, 2004). Emotional intelligence is argued to be a factor in superior performance (Goleman, 1995). As such, it is worth investigating whether emotional intelligence affects the tendency to have peak experiences or the nature of those experiences, especially given that peak experience is highly emotional. If there is an impact, it might also influence the extent to which peak experience results in peak performance.

A number of other research questions warrant attention if we are to understand the functioning of these three variables in an entrepreneurial context. From a managerial standpoint, it is important to determine if degrees of peak experience can be identified and the implications of different degrees both for the individual and the venture. Do entrepreneurs conceptualize feeling and performance components of the venture experience and organize these experiential states in identifiable gradients? In addition, further insights are needed regarding the triggering events that result in peak experiences and peak performance. Also, can entrepreneurial success or failure be empirically linked to peak performance and flow? Being in the zone may allow the entrepreneur to continue against great odds and overcome obstacles in order to succeed. Research should also focus on the role of other people, both within and outside the venture, in achieving extraordinary experiences. As the entrepreneur does not operate in a vacuum, it would seem likely that a multiplicity of roles (initiator, facilitator, inhibitor, participant, etc.) might be played by others. Finally, it would seem possible to identify particular environmental conditions that encourage or inhibit peak performance.

The current study demonstrates some of the inherent methodological challenges in investi-

gating these three variables. Limitations produced by such challenges include the retrospective approach to data collection, the inherent difficulties in applying empirical methods to phenomenological experiences, and the interpretative difficulties with the open-ended, qualitative questions. Further, while the use of sports as a comparative reference point is helpful, sport is only a metaphor in a business context. Criteria for entrepreneurial success are far more complex and subject to nuances than is winning on the sports field. The limited sample size and convenience selection method employed here suggest a need for larger and random samples to enhance the generalizability of the findings. In terms of the variables of interest, the underlying structure of the measures of peak performance, peak experience and flow require further attention in an entrepreneurial context.

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