ABSTRACT

We explore how national culture impacts emotional and cognitive processes of entrepreneurs. In particular, we extend the recent conceptual work on entrepreneurial passion by linking it to the theoretical lens on situated emotions. We also extend current work on entrepreneurial cognitions by suggesting that cognition is distributed among group processes and the environment. We propose a culturally situated model of entrepreneurial emotions (e.g., entrepreneurial passion) and cognitions (e.g., self-efficacy), and explore how these impact venture performance. We test the model in two different cultures – Slovenia and the USA – to show that the strength of feelings of entrepreneurial passion varies among entrepreneurs from different environments. In addition, we find that there are cultural differences in the manifestation of entrepreneurial self-efficacy and different domains of entrepreneurial passion, as well as the relationship between them and firm innovation and market share. We discuss implications for research and practice.

CULTURE, EMOTIONS AND COGNITIONS OF ENTREPRENEURS

Entrepreneurship scholars and practitioners have been recently fascinated by a specific emotion – entrepreneurial passion, the ‘most observed phenomenon in the entrepreneurial process’ (Smilor, 1997: 342). Entrepreneurial passion (EP) involves consciously accessible, intense positive feelings that result from engagement in activities that have identity meaning to an entrepreneur (Cardon, Wincent, Singh and Drnovšek, 2009). As an intense positive emotion, passion contributes to a better understanding of entrepreneurial behaviors and outcomes (Cardon et al.,
Emotions such as passion often work alongside cognitions, which have long been acknowledged to provide theoretically rigorous and testable explanations of how entrepreneurs think and why they do some of the things they do (Mitchell et al., 2002), as well as how such behaviors lead to specific outcomes (see also Baron, Chapter 1, this volume; Bird, Chapter 3, this volume).

Among entrepreneurial cognitions, entrepreneurial self-efficacy (ESE) has been seen as one of the most important cognitions impacting entrepreneurial behaviors and outcomes. ESE refers to the extent to which an entrepreneur believes that he/she can complete various roles and tasks of entrepreneurship (Boyd and Vozikis, 1994; Chen, Greene and Crick, 1998). If entrepreneurial emotions, specifically entrepreneurial passion (EP), are seen in the heart of the entrepreneurial process (Cardon, Foo, Shepherd and Wiklund, 2012), entrepreneurial cognitions, specifically entrepreneurial self-efficacy, may be seen as a ‘willpower’ of entrepreneurship since it has been shown to provide entrepreneurs with the strength necessary to persist despite the obstacles they encounter on their entrepreneurial journeys (Chen et al., 1998).

The context within which entrepreneurial cognitions and emotions interact while entrepreneurs pursue their goals is also important (Izard, 1978). Because entrepreneurs act and make decisions in response to opportunity under uncertainty, and evaluate the desirability and feasibility of an opportunity and exploit it (McMullen and Shepherd, 2006; Shane and Venkataraman, 2000) within a specific context, some variations in this dynamic process can be ascribed to differences in national contexts within which the entrepreneurial process emerges (Aldrich et al., 1991). Indeed, an aspect of society that critically shapes the environment for organizations has been identified in the literature – culture, including its norms and values. Because national cultures have different values and norms about entrepreneurship, entrepreneurial endeavors and performance are viewed in different ways (Ekman, 1992). By exploring the role of national culture in the entrepreneurial process, we can better understand how culture influences motives, values and beliefs of entrepreneurs (Frijda, 1987). Although extant culture-related research in entrepreneurship has so far provided tremendous insights (e.g., Aldrich et al., 1991; Hayton, George and Zahra, 2002), there are several theoretical and empirical gaps in our understanding about the impact that national culture might have on the emergence and effects of entrepreneurial cognitions and emotions.

One unanswered question is how culture-related factors influence the emergence and development of emotional and cognitive processes of entrepreneurs. To our knowledge, the entire published set of empirical data on entrepreneurial passion has been collected in a North American
setting, with one exception, which was collected in Germany (Breugst, Domurath, Patzelt and Klaukien, 2012). Similarly, despite a rich cumulative body of research on entrepreneurial cognitions, most of the empirical studies involving entrepreneurial cognitions have been conducted in Anglo-Saxon environments. In this chapter we seek to address these limitations and to make the following contributions. First, we explore how entrepreneurial passion develops across cultures and whether entrepreneurs in different environments tend to experience passion differently. Central to the nature of entrepreneurial passion is an entrepreneur’s self-identity, namely the role identity of inventor, founder and developer. Given that all identities begin as social roles (Stryker and Burke, 2000), their emergence is socially situated. Furthermore, individuals learn what it means to be an entrepreneur by first viewing how society interprets that particular social role (Murnieks, Mosakowski and Cardon, in press: 7). By exploring in Hypothesis 1 how the strength and focus of entrepreneurial passion differs among countries, we offer some preliminary explanations for the context-related variations in experiencing different types of entrepreneurial passion. We specifically look at the extent to which culture influences the amount of passion that is experienced, as well as the focus of that passion (on the inventor, founder and/or developer roles).

Our second contribution aims to explore how a specific emotion and a specific cognition relate to venture performance in two different cultural contexts. Recently, several authors (e.g., Mitchell, Randolph-Seng and Mitchell, 2011) suggested the need to explore how cognitive, motivational and emotional processes of entrepreneurs interact within specific social situations and with specific social actors. The emerging theory on situated emotions in psychology (Keltner and Haidt, 1999; Parkinson, Fischer and Manstead, 2005) suggests that environment plays an active role in structuring and enabling emotional engagements, and is in turn influenced by the unfolding of emotions. We integrate this theoretical perspective with existing conceptual work on entrepreneurial passion to develop a culturally situated model of entrepreneurial cognitions (e.g., entrepreneurial self-efficacy) and entrepreneurial emotions (e.g., entrepreneurial passion) in Hypotheses 2 and 3 and explore how those in turn affect venture performance on a large data set of practicing entrepreneurs in two different cultural environments. We also follow the idea of distributed cognition (Smith and Semin, 2004), suggesting that cognition is distributed among group processes and the environment so that ‘the social context of speaking and interactions with others affect the construction of meaning about a new venture’ (Cornelissen and Clarke, 2010: 542). For example, Bandura (1994) suggests that an important means of strengthening one’s self-efficacy is through vicarious learning and social persuasion. We look
at samples of entrepreneurs in the countries of Slovenia and the USA, and specifically at firm-level market share and innovation associated with entrepreneurial passion and entrepreneurial self-efficacy.

The remainder of the chapter is organized as follows. We begin with a brief review of theories of situated emotions and cognitions that we use as foundations for our arguments about the role of culture in impacting individuals’ emotions and cognitions. Specifically, we first investigate differences in experienced entrepreneurial passion in two different cultural contexts, as previous studies did not investigate in detail such cultural distinctions of emotions. We then focus on the relationship between entrepreneurial passion, entrepreneurial self-efficacy and venture performance, and develop propositions supporting these links. The rest of the chapter summarizes our methods, data from samples in Slovenia and the USA, and results. We conclude with a discussion of the study and its implications for future research.

THEORY AND HYPOTHESES DEVELOPMENT

Emotions and Cognitions: A Situated Perspective

The situated perspective of emotions maintains that individuals’ emotions are scaffolded by the environment (Griffiths and Scarantino, 2005; Parkinson et al., 2005): emotions are designed to function in a social context, and the environment in which they unfold influences them and is influenced by them. Although emotions are often privately experienced, they are most often expressed and often observed by others, who in turn respond to them (Van Kleef, 2010). By being (visually) expressed, emotions serve social functions, have interpersonal consequences (Van Kleef, 2010), and are shaped by cultural practices and symbol systems (Hareli and Parkinson, 2008).

A specific social role that emotions play is regulation of social interactions, influencing not only the behavior of the ‘emoter’ but also that of others in the social environment (Elfenbein and Ambady, 2002; Frijda, 2009; Parkinson et al., 2005) because emotions convey information about the situation of the individual and his/her behavioral intentions (Ekman, Friesen and Ellsworth, 1972; Izard, 1978). In essence, emotions ‘mobilize the organism to deal quickly with important interpersonal encounters’ (Ekman, 1992: 171). Emotions are experienced in response to significant events (Frijda, 1987) and provide a wealth of information not just to oneself (Frijda, 1987) but also to one’s social environment (Keltner and Haidt, 1999). That said, the experience of an emotion depends on the
current construal of a social situation (Frijda, 2009), and in turn plays a pivotal role in transforming the very nature of the emerging social situation and instigating the person to engage in certain actions (Markus and Kitayama, 1991). Emotional experience systematically varies with the construal of the self (Markus and Kitayama, 1991), and, based on the cultural impact, two broad concepts of the self emerge – independent and interdependent. The independent view is most clearly exemplified in a sizable segment of American culture as well as in many West European cultures. The independent view believes in the inherent separateness of an individual from others, and the behavior of that individual is meaningful primarily by reference to his/her own internal repertoire of thoughts, feelings and actions. In the independent construal of the self, the person is viewed as ‘a bounded, unique, more or less integrated motivational and cognitive universe and set contrastively both against other such wholes and against a social and natural background’ (Geertz, 1975: 48). The interdependent self is exemplified in Asian cultures, but can also be found in African, Latin American and Southern European cultures (Markus and Kitayama, 1991), including Slovenia, with a history of a socialist political regime strongly rooted in an interdependent view of society. The interdependent view sees an individual as an element of an encompassing social relationship and recognizes that his/her behavior is contingent on what the actor perceives to be the thoughts, feelings and actions of others in the relationship (DeVos, 1985). Overall, the situated perspective on emotions provides conceptual grounds for examining the cultural embeddedness of entrepreneurial passion, which we discuss below.

How is the experience of entrepreneurial passion associated with the prior cognitive processes of an entrepreneur? The general hypothesis in psychology is that affect and cognition are separate and partially independent systems that most of the time function conjointly, although there are instances when affect can be generated without a prior cognitive process (Zajonc, 1984). The debate on interdependence versus independence of both systems is conditional on how emotions and cognitions are defined. For the purposes of our analysis we contend that both systems interact in regulating entrepreneurial efforts (Cardon et al., 2012). Supported by neuroscience advances and findings, the emerging frame views ‘hot’ passions and ‘cold’ reason as coherent and connected systems that work together to dynamically regulate human behavior toward desired goals (Damasio, 1994; Dolan, 2002; Pham, 2004; see also Baucus, Baucus and Mitchell, Chapter 8, this volume; McMullen, Wood and Palich, Chapter 9, this volume). The existing conceptual work on entrepreneurial passion suggests that it is a central entrepreneurial emotion because entrepreneurs are not only responsive to ‘cold’ cognitions, but are actively responsive to
‘hot’ emotions (e.g., entrepreneurial passion). Finally, even economists are beginning to recognize that the ‘picture of human behavior that emerges is one that is more symmetric in its treatment of thoughts and feelings’ (Romer, 2000: 439). These developments have shifted the debate from asking how ‘hot’ passion limits ‘cold’ cognitions to understanding how the hot and cold systems cooperate in directing entrepreneurial pursuits. We discuss this in terms of entrepreneurial passion and self-efficacy below.

Culture and Entrepreneurial Passion

Cultures are sometimes equated with nations or societies, but more often a culture is restricted to a community of shared meanings, such as for example in D’Andrade’s (1984: 116) treatment of culture as ‘learned systems of meaning, communicated by means of natural language and other symbol systems, having representational, directive, and affective functions, and capable of creating cultural entities and particular senses of reality’ (see also Clarke and Cornelissen, Chapter 11, this volume). Cultural norms and values influence cognition, emotions and motivation (Markus and Kitayama, 1991), while government actions and political events create new institutional structures for entrepreneurial action, encouraging some activities and thwarting others (Ekman et al., 1972). Culture not only creates the social world; it guides people in the affective reactions needed to function in that world.

Culture shapes many aspects of emotion processes, including experience, expression, regulation and recognition (Elfenbein and Ambady, 2002; Markus and Kitayama, 1991). Some authors go so far as to propose that emotions (Lutz, 1988: 5) can be viewed as cultural and interpersonal products of naming, justifying and persuading by people in relationship to each other. Emotional meaning is then a social rather than an individual achievement, an emergent product of social life. There are culture-specific valuations of the experience and expression of emotion, for example in relation to gender, age and social status (Lutz, 1988).

Drawing from Hofstede’s cultural dimension taxonomy (Hofstede and Hofstede, 2001), there is a frequent observation in the entrepreneurship literature that the entrepreneurial process is facilitated by cultures that are high in individualism, low in uncertainty avoidance, low in power distance and high in masculinity (e.g., Hayton et al., 2002). For instance, Shane (1992) shows that uncertainty avoidance is negatively associated with innovation in both time periods of his longitudinal study, whereas individualism is positively associated with innovation only in one time period. Thomas and Mueller (2000) find that innovativeness and internal locus of control are prevalent in cultures high in individualism and low
Cultural context, passion and self-efficacy

in uncertainty avoidance, which leads them to suggest that cultures high in individualism and uncertainty avoidance are in general supportive of entrepreneurship. Baker and colleagues (Baker, Gedajlovic and Lubatkin, 2005) find that in countries where regional agglomerations are better developed, the likelihood that individuals who discover good entrepreneurial opportunities achieve success through de novo start-ups increases. Finally, Mitchell and colleagues (2007) find that cognitive scripts (e.g., tolerance for commitment and motivation) associated with venture creation decisions vary across cultures and are associated with cultural values of individualism and power distance.

These literatures mostly emphasize intrapersonal aspects of emotions and largely sidestep the broader contextual meaning of emotional experience. Yet, as we have shown earlier, there is a strong theoretical notion that emotions have an important interpersonal function by structuring social relations (Frijda and Mesquita, 1994; Keltner and Haidt, 1999) by providing information to interaction partners about our feelings, intentions, motives and social goals. Hence, in contrast to prior research on culture and entrepreneurship, the focus of this study is on an interpersonal perspective of the entrepreneurial process. Indeed, entrepreneurial passion has been shown to have contagion effects. For example, when entrepreneurs are passionate about developing their firms, this passion also manifests itself behaviorally so that other stakeholders of the firm can readily see it (Chen, Yao and Kotha, 2009). It is manifested in animated facial expressions, energetic body movements, and elevated pitch and speed of voice (Chen et al., 2009), all of which can be perceived by others, such as potential investors (Mitteness, Sudek and Cardon, 2012). Within an organization, employees who perceive a firm’s entrepreneur to be passionate about inventing or developing are more committed to the organization (Breugst, Domurath, Patzelt and Klaukien, 2012). This occurs because an entrepreneur’s passion has a contagion effect (Cardon, 2008) whereby employees are infected with the positive feelings of passion so that they also experience positive emotion, which leads them to be more committed (Breugst et al., 2012).

We argue that the link between culture and entrepreneurial passion is maintained through the role-identity component of passion. By viewing entrepreneurial passion as a specific emotional experience linked to an entrepreneur’s self-identity, prior work has identified three meaningful entrepreneurial role identities of entrepreneurs (Cardon et al., 2009) – inventor, founder and developer – that are associated with three domains of entrepreneurial passions – passion for inventing, passion for founding and passion for developing. Although entrepreneurial passion is an enduring stable emotion (Cardon, Grégoire, Stevens and Patel, 2013), it can
change gradually as the entrepreneur’s identity shifts (Cardon et al., 2009). Entrepreneurs can thus experience different types of entrepreneurial passion during a course of events, and can therefore experience different impacts on their success as entrepreneurs. Different types of entrepreneurial passion are associated with three meaningful role identities that entrepreneurs undertake (Gartner, 1985): (1) an inventor identity that involves activities related to seeking out new ideas, tinkering with new product development, and scanning the environment for new opportunities; (2) a founder identity that involves activities of assembling the resources necessary to create a firm, and the actual founding of the firm; and (3) a developer identity that concerns activities related to firm and market development (e.g., finding new customers) and firm growth (Cardon et al., 2009: 517; see also Corbett, Chapter 12, this volume). Since socially situated expectations of what entrepreneurs do may vary because of different self-concepts (e.g., independent, interdependent; Markus and Kitayama, 1991), these three types of entrepreneurial passion may be experienced differently across cultures.

Building on the theories of situated emotions in psychology (Parkinson et al., 2005), prior literature in entrepreneurship exploring the impact of culture (e.g., Hayton et al., 2002), and work on entrepreneurial passion, we argue that the strength and type of experienced entrepreneurial passion differ across cultural contexts. This is supported by the following logic. First, the conceptualization of entrepreneurial passion emphasizes an intrinsic link between the role identity of the entrepreneur and a specific experience of entrepreneurial passion (Cardon et al., 2009; Murnieks et al., in press). Second, the social psychology literature finds that the emergence of role identities is culturally dependent (e.g., Stryker and Burke, 2000). Integration of these two observations provides a lens through which the experience of entrepreneurial passion may be seen as a dynamic process helping entrepreneurs to maintain their relations with continually changing social environments. Similarly to how firm-level dynamic capability involves the firm’s ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments (Vogel and Güttel, 2012), entrepreneurial passion may motivate entrepreneurs to develop competencies necessary for the success of their ventures, or to recruit those competencies as needed, and to otherwise adapt to their environment, such as to the rapidly digitized and global business world, and the change from a socialist to a market economy. In short, passion may lead entrepreneurs to do whatever it takes in order to succeed and to fulfill their passion. Because individuals in different countries have strikingly different construals of the self, of others and of the interdependence of the two, these construals can influence and in many cases determine the
very nature of individual experience, including cognition, motivation and emotion (Markus and Kitayama, 1991: 224).

Given the scarcity of prior cross-cultural work on emotions between the USA and Slovenia, we do not have empirical grounds to predict which country will experience greater levels of entrepreneurial passion. Yet, drawing from existing theorizing of independent and interdependent self-construals, we speculate that in cultures with prevailing independent self-construals (e.g., the USA), the intensity of experienced entrepreneurial passion may be higher. In contrast, we speculate that the interdependent self-construals in Slovenia may lead to lower levels of experienced entrepreneurial passion. The interdependent view of Slovenian society can be understood by looking at several norms and values regarding entrepreneurial endeavors. For example, being wealthy and owning a great deal of property is stigmatized as a bad thing because of the still-present bitter aftertaste of nontransparent privatization of social property that Slovenia went through in the 1990s. Moreover, experiencing low entrepreneurial passion may come also from the fact that entrepreneurs are often inappropriately seen as tycoons and therefore are less passionate about doing business. In addition, failing with one’s own venture is not as negatively judged in the USA as it is in Slovenia, where creditors, financial institutions and the public view such bankruptcy negatively, leading entrepreneurs to be less willing to start a business again, whereas in the USA failing and starting several businesses is more usual. This leads us to propose the following:

Hypothesis 1: There will be significant differences in the level of experienced entrepreneurial passion by groups of entrepreneurs in different cultural contexts. Specifically, entrepreneurial passion will be lower in Slovenia than in the USA.

Entrepreneurial Passion and Venture Performance

A positive link between entrepreneurial emotions and venture performance is supported in prior literature (e.g., Baron and Tang, 2011; Cardon et al., 2012). First, drawing from the evidence in psychology, the experience of entrepreneurial passion has informational value. According to the ‘feeling as information hypothesis,’ positive feelings (such as passion) provide individuals with information that tells them that their current situation is safe (Schwarz and Clore, 1996). In so doing, positive affect enhances performance because it broadens the thought–action repertoires of individuals (Fredrickson, 1998; see also Foo, Murnieks and Chan, Chapter 5, this volume; Grégoire, Chapter 6, this volume), which leads them to generate
and consider more diverse alternatives (Isen and Baron, 1991), search for novel information, and be more receptive to new ideas (Estrada, Isen and Young, 1997). Second, the experience of entrepreneurial passion has motivational value. Positive feelings of entrepreneurial passion motivate entrepreneurs toward activities that are particularly important and salient to the entrepreneur’s self-identity. This link is maintained through a self-consistency mechanism – the wish to maintain one’s self-identity and protect self-conceptions against change. Such engagement in activities that validate salient identities arouses positive affect, in accordance with affect control theory (Burke and Reitzes, 1981). Therefore, when entrepreneurs experience strong feelings such as passion for activities associated with role identities that are important to them, their thought-action repertoires are broadened as they work to preserve the salient role identities. In doing so, entrepreneurs often engage in more creative problem solving and persistence toward their goals (Cardon and Kirk, in press). This behavior leads to better venture performance and growth. Taking these together, we suggest the following:

Hypothesis 2a: Entrepreneurial passion will be positively associated with venture performance in terms of market share growth, regardless of the cultural context; this will be true for passion for inventing, passion for founding, and passion for developing.

Hypothesis 2b: Entrepreneurial passion will be positively associated with innovation performance, regardless of the cultural context; this will be true for passion for inventing, passion for founding, and passion for developing.

Entrepreneurial Self-efficacy and Venture Performance

Over the years of research on determinants of venture performance, self-efficacy theory has probably been the most often used conceptual base for explaining variations in individual entrepreneurs’ and venture-related performance. The applicability of the concept of self-efficacy to entrepreneurship is appropriate because of its inherent link to goal-driven behaviors. In his grounding work, Bandura (1994) proposes that individuals with varying levels of self-efficacy beliefs differ in the amount of effort they spend on goal-directed tasks, the magnitude of coping activities they initiate to overcome impediments, and the degree to which they pursue goals despite obstacles (Stajkovic and Luthans, 2001); and that these behaviours have positive effects on performance outcomes. Indeed, when the theory of self-efficacy is applied to entrepreneurial contexts, there is a strong view that self-efficacy is a good
thing for entrepreneurs to have (Drnovšek, Wincent and Cardon, 2010). Shane and colleagues (2003: 267) went so far as to argue that an entrepreneur who is high in self-efficacy is likely to ‘exert more effort for a greater length of time, persist through setbacks, and develop better plans and strategies for the task.’

The entrepreneurial self-efficacy construct has been conceptually and empirically directly linked to important entrepreneurial outcomes such as start-up intentions (e.g., Krueger, Reilly and Carsrud, 2000) and new-venture growth (e.g., Boyd and Vozikis, 1994), as well as personal success of entrepreneurs (Markman, Balkin and Baron, 2002), while indirect effects of entrepreneurial self-efficacy on entrepreneurial behaviours, such as improvisation (Hmieleski and Baron, 2008), have also been explored. Overall, prior evidence suggests that self-efficacy is an important construct in entrepreneurship research and is related to important entrepreneurial outcomes. This leads us to propose:

**Hypothesis 3a:** Entrepreneurial self-efficacy will be positively associated with venture performance in terms of market share growth, regardless of the cultural context.

**Hypothesis 3b:** Entrepreneurial self-efficacy will be positively associated with innovation, regardless of the cultural context.

**Entrepreneurial Self-efficacy and Entrepreneurial Passion**

As discussed above, research in psychology and entrepreneurship views emotion and cognition as intertwined systems, where it is nearly impossible to completely separate the two (Zajonc, 1980). ‘In nearly all cases, however, feeling is not free of thought, nor is thought free of feelings’ (Zajonc, 1980: 154). Similarly, prior work in entrepreneurship has found significant correlations between entrepreneurial passion and entrepreneurial self-efficacy. For example, Murnieks et al. (in press) found a correlation of 0.30, Cardon et al. (2013) found correlations ranging from 0.22 to 0.54, and Cardon and Kirk (in press) found correlations of 0.19 to 0.47, all significant, between dimensions or domains of entrepreneurial passion and measures of entrepreneurial self-efficacy. We therefore also examine the relationship between these constructs as part of our model. We do not expect any cultural differences between these relationships, however. Therefore we propose:

**Hypothesis 4:** Entrepreneurial self-efficacy will be positively associated with entrepreneurial passion, regardless of the cultural context.
Figure 7.1 summarizes the relationships discussed above. Our model suggests that when effects of entrepreneurial passion and entrepreneurial self-efficacy are explored within the same model, regardless of cultural effect, the experience of entrepreneurial passion and the strength of entrepreneurial self-efficacy beliefs contribute to two important venture-related outcomes – the growth of market share and innovation performance.

METHODS

Data

The sample includes entrepreneurs from Slovenia and the USA. We selected these two countries to examine cultural differences for several reasons. First, we compared two countries that differ substantially in their size (Slovenia with 2.0 million inhabitants and the USA with 317.1 million inhabitants), GDP per capita in 2012 (PPP) (US$29,000 in Slovenia and US$49,000 in the USA) and economic tradition (Slovenia as a recently transitioned country with a post-socialist imprint that can still be felt and the traditional market-economy country of the USA). Second, Slovenia’s history and culture are tightly associated with those of Continental European countries, while the USA makes a good representation of the Anglo-Saxon cultural environment. Third, Slovenia is culturally a more homogeneous country, while the USA is a highly multicultural country.
Fourth, the USA is generally considered an extreme example of high individualism, while Slovenia has a less individualistic culture, which derives from the socialist regime that was in place in Yugoslavia until 1990.

Respondents for our samples were randomly selected using official databases of incorporated businesses – the PIRS database was used in Slovenia and ReferenceUSA in the USA. In each country a sample of 4000 firms that had 5–249 employees, were privately owned and operated in all sectors except in public administration was initially generated. Three e-mail reminders to participate in our study were sent in the USA, and one reminder was sent in Slovenia. For those respondents who preferred an online version, the reminder contained a link to our web survey. The first reminder was sent two weeks after mailing the paper version questionnaires, the second and third reminders for the US sample were sent four and six weeks after the first mailing. Data for the US sample were collected in the period September–November 2011, whereas data for the Slovenian sample were collected in the period February–April 2012.

A total of 713 useful responses was obtained from the Slovenian sample (response rate of 17.83 percent) and 367 useful responses from the US sample (response rate of 9.18 percent). We analyzed the two data sets in terms of missing data. We determined that data were missing completely at random since no pattern of missing data was found in the two databases.

We tested the data for the presence of common-method variance in several ways. First, we used different sources of information for some key variables (Podsakoff, MacKenzie, Lee and Podsakoff, 2003), as explained below. In addition, common-method variance was reduced ex ante by assuring confidentiality of the study and pretesting the questionnaire items for their clearness, unambiguity and familiarity of wording (Chang, van Witteloostuijn and Eden, 2010; Podsakoff et al., 2003). Following additional suggestions by Podsakoff and colleagues (2003), we used different scale endpoints and formats for predictor and criterion measures within the questionnaires. Finally, common-method variance was evaluated ex post by conducting Harman’s single-factor test in EFA in SPSS and the common factor CFA in AMOS. Both tests provided evidence that common-method variance was not present in the samples.

A detailed description of the samples’ characteristics is provided in Table 7.1. Average age of the responding firms in the Slovenian sample was 17 years, while US responding firms were on average five years older. US firms were larger in terms of number of employees, firm owners were older and had more years of experience in general (from their first to their current job), and also more years of experience in the current industry. Approximately the same percentage of women was present in both samples (20 percent).
Measures

Data were collected using self-administered questionnaires, using Dillman et al.’s (2009) tailored design method. Initially we prepared an English version of the questionnaire that was then translated into the Slovene language and back-translated into English by two translators following recommendations by Brislin (1970). Questionnaires were mailed with a pre-paid return envelope and an accompanying letter of invitation to participate in our study.

Entrepreneurial passion

Entrepreneurial passion was measured with the scale validated by Cardon et al. (2013). The measure captures the three EP domains – inventing, founding and developing. Each domain comprises two dimensions – intense positive feelings (IPF) and identity-centrality (IC). Respondents were asked to assess their extent of agreement with items pertaining to EP dimensions on a five-point Likert scale ranging from strongly disagree to strongly agree. Measures for IPF dimensions consisted of summed average scores for their respective items. By multiplying the respective IPF and IC dimensions we obtained the EP-inv, EP-fnd and EP-dev scores.

Entrepreneurial self-efficacy

Entrepreneurial self-efficacy captures the strength of an individual’s capability beliefs about performing the roles and tasks of an entrepreneur (Chen et al., 1998). In our study, we used a shorter version of ESE validated by Prodan and Drnovšek (2010) that refers to ESE for management, ESE for innovation, and ESE for marketing. However, one item pertaining to the dimension of ESE for management (‘I am able to establish position in product/service market’) loaded on all three dimensions and

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was excluded from further analyses. We asked respondents to evaluate their degree of certainty in performing tasks on a seven-point Likert scale ranging from completely unsure to completely sure. Reliability was assessed in EQS by the RHO reliability coefficient due to the second-order nature of the measure, resulting in RHO(Slovenian sample) = 0.936, RHO(US sample) = 0.928.

**Innovation**

Innovation was measured as a second-order construct representing three dimensions – product innovations, process innovations and administrative innovations (Jiménez-Jiménez and Sanz-Valle, 2011). Respondents were asked to indicate how their firms performed compared to competitors in the last three years. They assessed innovation performance on a seven-point Likert scale ranging from much worse than competitors to much better than competitors. Reliability was assessed in EQS by the RHO reliability coefficient due to the second-order nature of the measure, resulting in RHO(Slovenian sample) = 0.945, RHO(US sample) = 0.958.

**Market share growth**

To assess market share growth, we asked respondents to rate the increase/decrease in market share of their firms in the last three years in comparison to competitors in respect of their firms’ age and phase of development. The responses were assessed on a seven-point Likert scale ranging from major decrease through a middle point of remained the same to the highest score of major increase.

**Analysis**

We began with the single-group analyses to validate EP domains following a confirmatory factor analysis. In the second step, we performed multi-group analysis in order to test for configural and metric invariance of EP domains across different cultures (Byrne, 2010). Configural invariance requires the number of factors and the factor-loading pattern to be the same across the groups of entrepreneurs for each EP domain, while metric invariance requires the equality of factor loadings. We also added constraints on equality of error variances.

After multi-group analyses of EP domains across Slovenian and US entrepreneurs, we turned to the latent-mean analyses of EP domains to test for the equivalence of means related to each underlying EP dimension factor. We introduced the intercepts of observed variables that comprised EP dimensions of IPF and IC as well as the means of IPF and IC EP dimensions. The latent-means analysis is the correct method to test if there
are any cultural differences that preclude responding to instruments in similar ways (Vandenberg and Lance, 2000). We used AMOS version 20.0 to compute all statistical tests of invariance in multi-group analyses and in latent-means analyses.

Hypotheses that postulated casual relationships between emotions and cognitions and firm-related outcomes were tested using structural equation models. We used EP-inv, EP-fnd, EP-dev and ESE as independent variables and innovation and market share growth as dependent variables. All models were evaluated in terms of model fit based on the following fit indices: $\chi^2$, NFI, CFI, SRMR and RMSEA.

**Results**

Results of the single-group CFA analyses of EP domains for Slovenian and US entrepreneurs confirmed the proposed structure with model-fit indices that were above the recommended thresholds (Hair, Anderson, Tatham and Black, 1998). One error covariance was allowed in the dimension EP-fnd and dimension EP-dev. Allowing error covariances among related indicators can reflect the fact that a similar idea underlies the constructs, albeit with different wording.

We used multi-group analysis to test for configural invariance, metric invariance, and invariance of error variances. First, results confirmed configural invariance of all EP domains since data fitted well on the model in which the same number of factors and the same pattern of fixed and free factor loadings were specified in both groups simultaneously, while allowing all parameters to be freely estimated (Kline, 2011).

Second, a stronger form of invariance is represented by metric invariance, which is evidenced when unstandardized factor loadings of each indicator are equal across groups (Kline, 2011: 253). Metric invariance was confirmed for EP-inv and EP-fnd since factor loadings were equivalent across Slovenian and US samples of entrepreneurs and the change in the CFI index between the configural invariance model and the metric invariance model was below the suggested threshold of 0.01. Partial metric invariance was supported for the EP-dev dimension since one item (‘Pushing my employees and myself to make our company better motivates me’) had non-invariant loadings, suggesting that entrepreneurs in Slovenia and in the USA differ in regard to the level to which they push their employees and themselves to develop their firms. It seems that the performance-oriented culture in the USA drives people to serve the companies’ needs better in order to retain their jobs by doing well for the company, while, in Slovenia, employees’ rights are extensive and the rigid labor market makes it difficult to lay off workers. It might be that here
lies a part of the reason for which entrepreneurs push their employees to a lesser extent in Slovenia than in the USA.

The error variance–invariance testing resulted in full invariance of error variances for EP-inv and EP-dev, whereas for EP-fnd partial invariance of error variances was shown. We checked which is the invariant error variance and found that error variance connected to the indicator ‘Owning my own company energizes me’ was different in the two groups under study. In interpreting results of invariance tests we are aware that measurement systems are imperfect and that some proportion of variation in targeted indicators may be attributed to influences other than the abstraction of substantive interest, including systematic and nonsystematic measurement error (Vandenberg and Lance, 2000). The results of goodness-of-fit statistics for configural invariance, metric invariance and invariance of error variances are presented in Table 7.2.

Hypothesis 1, which postulated significant differences in the mean levels of experienced entrepreneurial passion between American and Slovenian entrepreneurs was supported. We used latent-means analyses to test it. In performing this analysis we set the Slovenian sample of entrepreneurs as the

Table 7.2 Multi-group analyses of entrepreneurial passion domains

<table>
<thead>
<tr>
<th></th>
<th>( \chi^2 )</th>
<th>DF</th>
<th>P(ΔP)</th>
<th>NFI</th>
<th>CFI</th>
<th>SRMR</th>
<th>RMSEA (90% confidence interval; pclose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial passion for inventing:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconstrained</td>
<td>25.88</td>
<td>10</td>
<td>0.00 (i)</td>
<td>0.98</td>
<td>0.99</td>
<td>0.02</td>
<td>0.04 (0.02–0.06; 0.72)</td>
</tr>
<tr>
<td>Model 1a</td>
<td>30.63</td>
<td>13</td>
<td>0.00 (0.19)</td>
<td>0.98</td>
<td>0.99</td>
<td>0.03</td>
<td>0.04 (0.02–0.06; 0.84)</td>
</tr>
<tr>
<td>Model 2a</td>
<td>39.78</td>
<td>17</td>
<td>0.00 (0.06)</td>
<td>0.97</td>
<td>0.98</td>
<td>0.03</td>
<td>0.04 (0.02–0.05; 0.88)</td>
</tr>
<tr>
<td>Entrepreneurial passion for founding:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconstrained</td>
<td>1.49</td>
<td>2</td>
<td>0.48 (i)</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00 (0.00–0.06; 0.89)</td>
</tr>
<tr>
<td>Model 1b</td>
<td>3.06</td>
<td>4</td>
<td>0.55 (0.46)</td>
<td>1.00</td>
<td>1.00</td>
<td>0.01</td>
<td>0.00 (0.00–0.05; 0.97)</td>
</tr>
<tr>
<td>Model 2b</td>
<td>4.36</td>
<td>6</td>
<td>0.63 (0.52)</td>
<td>0.99</td>
<td>1.00</td>
<td>0.01</td>
<td>0.00 (0.00–0.04; 0.99)</td>
</tr>
<tr>
<td>Entrepreneurial passion for developing:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconstrained</td>
<td>5.67</td>
<td>2</td>
<td>0.06 (i)</td>
<td>0.99</td>
<td>0.99</td>
<td>0.02</td>
<td>0.05 (0.00–0.09; 0.49)</td>
</tr>
<tr>
<td>Model 1c</td>
<td>7.99</td>
<td>3</td>
<td>0.05 (0.13)</td>
<td>0.99</td>
<td>0.99</td>
<td>0.02</td>
<td>0.04 (0.01–0.08; 0.56)</td>
</tr>
<tr>
<td>Model 2c</td>
<td>14.87</td>
<td>6</td>
<td>0.02 (0.08)</td>
<td>0.98</td>
<td>0.99</td>
<td>0.02</td>
<td>0.04 (0.01–0.07; 0.69)</td>
</tr>
</tbody>
</table>

Notes:
Model 1a = equality of factor loadings; Model 2a = Model 1a + equality of error variances.
Model 1b = equality of factor loadings; Model 2b = Model 1b + partial equality of error variances.
Model 1c = partial equality of factor loadings; Model 2c = Model 1c + equality of error variances.
reference group (means were fixed to 0). We introduced intercepts into the analysis and tested for their equality across the two groups (scalar invariance). The results showed invariance of intercepts for EP-inv and EP-fnd, but not for EP-dev. When this constraint was relaxed, we got acceptable results. We also tested the invariance of factor loadings and invariance of indicators’ unique variances (error variances) across groups (Vandenberg and Lance, 2000). The results are in line with results from multi-group analyses. We present the results on model-fit statistics in Table 7.3.

Acknowledging (partial) invariance of all tests so far, we turn to the estimation of the latent means. The results presented in Table 7.4 show that there are statistically significant differences in latent means, with means for IPF and IC of EP-inv, EP-fnd and EP-dev being significantly higher for the US sample of entrepreneurs. This allowed us to accept Hypotheses 1 because results show that US entrepreneurs experienced higher degrees of IPF and IC of EP-inv, EP-fnd and EP-dev.

Hypotheses 2a and 2b suggested positive relationships between entrepreneurial passion and performance outcomes. Results of structural equation
analyses show that EP-inv, EP-fnd and EP-dev have slightly different influences on dependent variables in the two samples. While a statistically significant influence was found for EP-inv and EP-dev on innovation and not on market share growth in the Slovenian sample, EP-inv significantly impacts innovation and market share in the US sample. The results show that EP-dev is related only to market share in the US sample. Interestingly, EP-fnd is not significantly related to innovation or market share in either sample. This provides partial support for Hypotheses 2a and 2b.

Hypotheses 3a and 3b suggested positive relationships between entrepreneurial self-efficacy and performance outcomes. ESE had a significant influence on innovation and market share in both samples, which supports both hypotheses. The unstandardized and standardized estimates, along with standard deviations, are presented in Table 7.5. While $R^2$ statistics for innovation were 0.41 and 0.33 for the Slovenian and US samples, respectively, the $R^2$ statistics for market share were 0.19 in both samples. The goodness-of-fit statistics for the structural model were the following: (1) for the Slovenian sample $\chi^2 = 295.68$, df = 66, $p = 0.00$, NFI = 0.95, CFI = 0.96, SMRM = 0.05, RMSEA = 0.07 (90 percent confidence interval from 0.06 to 0.08) and (2) for the US sample $\chi^2 = 198.60$, df = 66, $p = 0.00$, NFI = 0.94, CFI = 0.96, SRMR = 0.06, RMSEA = 0.07 (90 percent confidence interval from 0.06 to 0.09).

Finally, consistent with H4, we evaluated the interrelatedness of the EP dimensions and ESE to see whether there are some differences in
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Table 7.5 AMOS results for structural equation models

<table>
<thead>
<tr>
<th>Relation</th>
<th>Unstandardized estimate</th>
<th>Standard error</th>
<th>Standardized estimate</th>
<th>P value (two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SLO</td>
<td>USA</td>
<td>SLO</td>
<td>USA</td>
</tr>
<tr>
<td>EP-inv → Innovation</td>
<td>0.03</td>
<td>0.09</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>EP-inv → Market share</td>
<td>−0.01</td>
<td>0.06</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>EP-fnd → Innovation</td>
<td>−0.02</td>
<td>−0.03</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>EP-fnd → Market share</td>
<td>−0.01</td>
<td>0.01</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>EP-dev → Innovation</td>
<td>0.05</td>
<td>0.01</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>EP-dev → Market share</td>
<td>0.05</td>
<td>−0.05</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>ESE → Innovation</td>
<td>0.35</td>
<td>0.40</td>
<td>0.05</td>
<td>0.07</td>
</tr>
<tr>
<td>ESE → Market share</td>
<td>0.54</td>
<td>0.70</td>
<td>0.09</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Note: # p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001.

Table 7.6 Correlations among variables

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-inv</td>
<td>1</td>
<td>0.63</td>
<td>0.67</td>
<td>0.51</td>
<td>0.46</td>
<td>0.24</td>
</tr>
<tr>
<td>EP-fnd</td>
<td>0.63</td>
<td>1</td>
<td>0.62</td>
<td>0.53</td>
<td>0.57</td>
<td>0.40</td>
</tr>
<tr>
<td>EP-dev</td>
<td>0.67</td>
<td>0.62</td>
<td>1</td>
<td>0.50</td>
<td>0.26</td>
<td>0.26</td>
</tr>
<tr>
<td>ESE</td>
<td>0.51</td>
<td>0.53</td>
<td>0.43</td>
<td>1</td>
<td>0.25</td>
<td>0.31</td>
</tr>
<tr>
<td>Innovation</td>
<td>0.46</td>
<td>0.57</td>
<td>0.36</td>
<td>0.45</td>
<td>0.44</td>
<td>0.31</td>
</tr>
<tr>
<td>Market share</td>
<td>0.24</td>
<td>0.40</td>
<td>0.26</td>
<td>0.31</td>
<td>0.42</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Note: All correlations significant at p < 0.001, except EP-dev ↔ Market share significant at p < 0.01.

correlations among these variables between the two samples. The results reported in Table 7.6 show major differences in the strength of the correlations of EP dimensions with ESE in the US sample (correlation coefficients from 0.36 to 0.53), while in the Slovenian sample there were only slight differences in the strength of the correlations of EP dimensions with ESE (correlation coefficients from 0.42 to 0.50). However, in both samples ESE correlates the most with EP-inv, then with EP-dev, and the least
with EP-fnd. But still, all the correlations are statistically significant \( p < 0.001 \), consistent with H4. Based on the results on these final tests we can assume that EP and ESE correlate with each other in a significant way in both samples, despite different cultural and national backgrounds.

**DISCUSSION**

In this chapter we extend the recent work on entrepreneurial passion (Breugst et al., 2012; Cardon et al., 2009) by integrating this stream of research with work on situated emotions to empirically test how entrepreneurial passion is experienced across different cultures. We believe that this exploration of entrepreneurial passion in two different cultures – Slovenia and the USA – is important for the following reasons. First, existing research into entrepreneurial passion that has emphasized it as an important motivational resource needs to be culturally embedded. This is because prior literature shows that some variations in the process by which entrepreneurs act and make decisions in response to opportunities at hand can be ascribed to differences in national culture norms and values. Second, given that the concept of entrepreneurial passion is conceptualized in the literature (Mitchell et al., 2007; Mitchell, Smith, Seawright and Morse, 2000), and a measurement instrument has been developed and validated, further studies of this important construct will contribute to a fuller picture of how the construct manifests itself in a nomological network with other important entrepreneurship constructs. We add to this body of work by examining how entrepreneurial passion works alongside entrepreneurial self-efficacy and how they influence venture-related outcomes in terms of innovation performance and market share growth. As we have earlier emphasized, we see emotions (e.g., entrepreneurial passion) and cognitions (e.g., entrepreneurial self-efficacy) as two cooperating systems that dynamically interact in directing behaviors of entrepreneurs and venture-related outcomes in turn. This is consistent with other research that has looked at their interrelationships (Cardon and Kirk, in press).

Our main theoretical contribution to the entrepreneurship literature stems from exploring how contextual factors influence the emergence and development of emotional and cognitive processes of entrepreneurs. First, we posit reasons why entrepreneurial passion may develop differently across cultural contexts. We empirically test our propositions and provide evidence that the strength of experienced entrepreneurial passion varies among entrepreneurs from different environments. In particular, we found that all three domains of passion were experienced more intensely in the US entrepreneur sample than in the Slovenian sample. This means that,
on average, US entrepreneurs self-evaluate their entrepreneurial passion higher than Slovenian entrepreneurs do, with IPF-fnd having the highest difference between the two samples (difference of 0.42) and with IPF-inv having the lowest difference between the two samples (difference of 0.16). In regard to the IC dimension, the highest difference was evidenced with IC-inv (difference of 0.35) and the lowest with IC-fnd (difference of 0.22). But in all cases, entrepreneurs from the USA reported higher IPF and IC values. Second, we add to the literatures that explore how specific emotions and cognitions are associated with venture outcomes. We find an intriguing result here – despite the fact that the average level of reported passion is lower in Slovenia than in the USA, it has more of an effect on innovation in Slovenia than in the USA. On the other hand, the relationship between passion and innovation was significant for all three domains of EP in Slovenia, but only for passion for inventing in the USA. In terms of market share, there was no effect of passion in Slovenia, but a significant effect of passion for inventing and passion for developing on market share growth in the US sample. Further, ESE had a significant effect on market share growth and innovation in both the US and Slovenian samples, and passion and ESE were significantly correlated in both samples.

This raises several important questions and implications for future work. First, why are the reported levels of entrepreneurial passion higher in the USA, on average, than in Slovenia? While the USA has a long entrepreneurial tradition facilitated by the capitalistic system, in Slovenia entrepreneurial ventures sprang up only at the beginning of the 1990s after Slovenia gained its independence and the socialist economic system transitioned into a capitalistic one. It might be that the experience of EP is lower among Slovenian entrepreneurs due to traces of the collectivistic culture that can still be felt and that do not praise entrepreneurs, their effort or their successes in economic development to such an extent as a more capitalistic culture does. Indeed, research suggests (e.g., Ekman, 1984) that national cultures have different values and norms about any phenomenon visibly occurring in the society (e.g., entrepreneurship activity), implying that entrepreneurial endeavors and performance are differently publicly emphasized. Future research should examine in more detail how Slovenians experience passion and whether their lower reports of it are due to perceived cultural expectations or norms for formally reporting emotional experiences or, instead, actual lower levels of feelings experienced, or perhaps less identity-centrality of the roles of inventor, founder or developer in the Slovenian context. The results we report here show clearly that there are significant differences in the levels of EP reported by entrepreneurs from two different nations that also have very different entrepreneurial traditions, with Slovenian entrepreneurs reporting lower levels of
experienced feelings and identity-centrality. This adds to the conversation proposed by (Cardon et al., in 2013), who suggested further investigation into whether and how the experience of EP varies among entrepreneurs. It is particularly interesting that the relationship between passion and innovation is stronger in Slovenia than in the USA, yet the relationship between passion and market share growth is stronger in the USA than in Slovenia. Further research should expand this study to other countries, specifically other parts of the world that differ substantially from both Slovenia and the USA in terms of general cultural elements as well as the entrepreneurial environment. Future work could also explore cultural norms concerning the two dimensions of passion, positive intense feelings and the identity-centrality of various entrepreneurial roles. In terms of feelings, researchers should examine whether the experience of passion (level) truly differs or just the willingness of people to honestly report their passion. In the USA, passion is seen as a critical factor in entrepreneurship, leading to greater employee engagement and greater potential for investment dollars (e.g., Ekman, 1984). Therefore USA entrepreneurs may be quite willing to wear their hearts on their sleeves and openly admit to feelings of passion. Is this also true in other countries, including Slovenia? To answer this type of question, it is important that additional work include not only self-assessments where entrepreneurs report their own experiences of passion, but also independent assessments of others about the level and focus of an entrepreneur’s passion. More objective biological measures of passion would also help differentiate between the experience and reporting norms or practices concerning passion.

A second area of future research related to measuring passion concerns whether entrepreneurs are able to determine what they are passionate about. In the USA, the literature suggests three distinct phases of the entrepreneurial process – identifying and/or creating opportunities (inventing), founding firms through a formal legal process, and growing firms (developing). The focus of the literature on these three areas of the process led to the conceptualization and measurement of entrepreneurial passion as being related to these three roles (Cardon et al., 2013). However, it is entirely possible that these three phases are not as clearly delineated or understood as distinct in other cultures, or that other additional role identities or domains of passion are more relevant to entrepreneurs there. Qualitative work in multiple cultural contexts is needed to answer these questions.

Third, we encourage additional work that integrates EP into models with other affective, emotional, cognitive and motivational components (see also Carsrud and Brännback, Chapter 2, this volume). We responded to a call for this type of work by Cardon and colleagues (2009) by investigating
the influence of EP and ESE on venture outcomes, but clearly more work is needed in this area. Future research should explore other personality, firm and environmental variables that may interplay with EP and ESE. For example, how does passion interact with the use of biases and heuristics in entrepreneurial decision making? It would also be useful to examine the explicit interaction of passion, ESE, and other emotional and cognitive variables with explicitly measured cultural variables such as individualism/collectivism, power distance and others. This is especially important as global boundaries continue to recede and individuals often attend school and/or do business in different countries, which can lead to shifts in individual experiences of culture and greater cultural blending.

Finally, future research could explore the social function of entrepreneurial passion at different levels of social interactions: individual, dyadic and group levels. For instance, at the dyadic level (team level) of analysis, researchers could focus on how emotions organize the interactions of individuals in meaningful relationships. The interacting dyad is the system with respect to which the consequences of behaviors are interpreted. Researchers here focus on the communication of emotion in facial, vocal and postural channels. When exploring social functions at a group level of analysis, researchers can focus on how emotions help groups of interacting individuals with common identities during the goal attainment process. Finally, at the cultural level of analysis, researchers can focus on how emotions are shaped by historical and economic factors, on how emotions are embedded in cultural institutions and practices, and on the cultural norms and scripts for the proper expression and experience of emotions.

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Cultural context, passion and self-efficacy


