

Cross-Cultural Similarities and Differences in Characteristics Attributed to Entrepreneurs

A Three-Nation Study

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This study examines characteristics attributed to entrepreneurs in three countries and identifies similarities and differences in entrepreneurial characteristics across countries. Business students ($N = 424$) from India, Turkey, and the United States rated 92 descriptors of human attributes and behaviors. For each attribute, respondents rated how characteristic it was of an entrepreneur. We found that though some characteristics were attributed to entrepreneurs across national cultures, there were also important differences in characteristics attributed to entrepreneurs in the three cultures. Following from prior literature, we did not assume the North American perspective of the entrepreneur as universal, allowing us to better understand how people in different cultures view entrepreneurs. The identification of country-specific entrepreneurship concepts can be useful for researchers interested in studying entrepreneurship internationally and practitioners interested in encouraging and training entrepreneurs in different countries. Implications of our findings and directions for future research are discussed.

Keywords: *entrepreneurial profile; characteristics and traits; international; India; Turkey; United States*

Entrepreneurs have long been recognized as leading drivers of economic growth and regional development (Chiles, Bluedorn, & Gupta, 2007; Schumpeter, 1934). In today's increasingly turbulent and competitive business environment, entrepreneurs—people who create new ventures—are necessary and important to start and lead firms that can compete successfully with national and international competitors (Ireland, Hitt, & Sirmon, 2003; Kuratko, 2007). Entrepreneurial leaders, such as Sam Walton, Michael Dell, and Steve Jobs, continue to be respected and revered for their leadership role in creating businesses that have created new jobs and facilitated national economic development. There are countless other entrepreneurs worldwide who have created new businesses (Venkataraman, 1997). The unique leadership demonstrated by entrepreneurs and the important role they play in economic development worldwide have led scholars to ask whether characteristics and attributes associated with entrepreneurship

are similar or different across countries (Mitchell et al., 2004; Mueller & Thomas, 2001; Thomas & Mueller, 2000). This study examines cross-cultural similarities and differences in characteristics perceived to be associated with entrepreneurs in three different countries, namely, India, Turkey, and the United States.

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Entrepreneurship researchers have generally assumed that characteristics associated with entrepreneurs in the United States, such as risk bearing (Knight, 1921), high need for achievement (McClelland, 1987), initiative taking (Shapiro & Sokol, 1982), and innovativeness (Schumpeter, 1934), are universally ascribed to entrepreneurs (Hayton, George, & Zahra, 2002; Thomas & Mueller, 2000). However, research in cultural psychology questions this assumption. According to cultural psychologists, people construe themselves and others using context-specific concepts and other symbolic structures that are available to them (Kashima, 2005). The communities, societies, and cultural contexts in which people participate provide the interpretive frameworks—the theories, images, and concepts—by which people make sense, organize perceptions, and take action (Markus & Kitayama, 1998). If culture influences implicit theories and prototypical concepts associated with any object or person, it is likely that people in culturally different countries will attribute different characteristics or traits to entrepreneurs.

In this study we examine the implicit theories about entrepreneurs held by people in various countries. The relative scarcity of research on characteristics ascribed to entrepreneurs in different countries raises the question of what perceptions of entrepreneurship are like in other countries. Specifically, we investigate the following research question: *Are characteristics attributed to entrepreneurs similar or different across cultures?* We do not assume that the North American entrepreneurial archetype is universal (an approach favored in extant entrepreneurship research; Hayton et al., 2002). Rather, we examine the characteristics people attribute to entrepreneurs in different cultures. We do so using data collected from people in three culturally different countries: India, Turkey, and the United States.¹ The objective of our study is exploratory. We hope to address a research gap concerning what is known about cross-cultural similarities and differences in characteristics attributed to entrepreneurs. We believe this study helps further scholarly understanding of the aspects of entrepreneurship that are universally shared by people versus those that are specific to a national culture. Our findings can also benefit the development of cross-cultural entrepreneurship training, coaching, and consulting by drawing attention to important cross-cultural similarities and differences in characteristics perceived to be associated with entrepreneurs.

International Entrepreneurship Research

A great deal of academic interest today centers on international entrepreneurship (Acs, Dana, & Jones, 2003), defined as the study of “the discovery, enactment, evaluation, and exploitation of opportunities across national borders, to create future goods and services” (McDougall & Oviatt, 2003; Oviatt & McDougall, 2005, p. 7). Early international entrepreneurship research focused primarily on understanding the internationalization activities of new ventures (McDougall, 1989) and later on “new and innovative activities that have the goal of value creation and growth in business organizations across national borders” (McDougall & Oviatt, 1997, p. 293). Major areas of interest in international entrepreneurship now include corporate entrepreneurship, economic development initiatives, entrepreneurial characteristics and attributes, entrepreneurial orientation, exporting, franchising, new ventures, transitioning economies, and venture financing (McDougall & Oviatt, 2000). Despite the lack of a unifying paradigm to organize the disparate research in this area (Dimitratos & Jones, 2005), international entrepreneurship is gradually gaining acceptability as a distinct field of study.

Historically, international entrepreneurship researchers did not show much interest in studying entrepreneurs, individuals who engage in entrepreneurship and demonstrate entrepreneurial leadership (Baron, 2002; Kuratko, 2007). Kilby (2003) argued that the omission of the individual from early international entrepreneurship research was rooted in the mistaken belief that the supply of entrepreneurs is abundant and similar across societies and that differences in entrepreneurial activity across countries are the result of structural problems such as distorted economic incentives, defective regulatory environment, constrained availability of complementary inputs, and incomplete information. Definitions of international entrepreneurship reflected the field’s roots in international business and strategic management literature and focused on firms and their environment (Oviatt & McDougall, 2005). In an extensive literature review of international entrepreneurship research, Cox (1997) found that most studies focused on internationalizing young ventures and that studies examining entrepreneurs were lacking.

This situation has changed considerably as the field of international entrepreneurship has matured. International entrepreneurship researchers are now interested in studying the entrepreneur, the firm, the

market, and the national environments (Dimitratos & Jones, 2005). Other scholars have expanded the domain of the field to focus attention on a nexus between opportunities and the individuals who discover them (Dimitratos & Jones, 2005; Zahra, Korri, & Yu, 2005). This expanded scope of international entrepreneurship research is consistent with recent work in entrepreneurship (e.g., Chiles et al., 2007) which argues that for the field to gain academic legitimacy and respectability, it is important to advance our understanding of individuals who engage in entrepreneurship and demonstrate entrepreneurial leadership (Baron, 2002).

Though some early entrepreneurship research considered it futile to study individuals (Gartner, 1988), most scholars now situate individuals at the center of entrepreneurship and economic creation (Baron, 2002; Mitchell et al., 2004). Recent definitions of international entrepreneurship echo Sarasvathy and Venkataraman's (2001) observation that trying to study entrepreneurial phenomena without considering entrepreneurs is like trying to understand *Romeo and Juliet* without Romeo: It is, after all, individuals who create or recognize opportunities and mobilize resources to exploit them and who are more or less effective in doing so. In an important development, Hayton et al. (2002) reviewed extant literature on the relationship between national culture and entrepreneurship and highlighted international research on entrepreneurial characteristics and attributes as a major area for research for the field.

International Research on Entrepreneurial Characteristics

International research on entrepreneurial characteristics and traits started with the publication of Hisrich's (1988) work on entrepreneurs in Northern Ireland. Since then, several studies have examined the relationship between national culture and entrepreneurial characteristics and traits. These studies are summarized in Table 1.² These studies have focused on a diverse set of characteristics, behaviors, and values across a number of countries (Hayton et al., 2002). The general finding in these studies is that the greater the cultural differences between a country and the United States, the lower the level of typical American entrepreneurial characteristics in that country's population (Thomas & Mueller, 2000).

Most of the studies presented in Table 1 compared typical entrepreneurial characteristics across two or

three countries (Ardichvili & Gasparishvili, 2003; Carland & Koironen, 1997; Koironen, Hyrsky, & Tuunanen, 1998; Kessler, 2008; Lituchy & Reavley, 2004; Shane, Kolvereid, & Westhead, 1991; van Eden, Louw, & Venter, 2005), though some focused on individual countries (Hisrich, 1988; Kaufmann, Welsh, & Bushmarin, 1995; Nair & Pandey, 2006; Nicholson, 1998; Yetim & Yetim, 2006), and a few used data from more than three countries (Beugelsdijk & Noorderhaven, 2005; McGrath, MacMillan, & Scheinberg, 1992; Mueller, 2004). These studies take one of two distinct approaches to investigate the characteristics associated with entrepreneurs internationally. The vast majority of studies address the question of the extent to which characteristics and traits (e.g., locus of control, need for achievement) associated with entrepreneurs in the United States are found in other cultures (Carland & Koironen, 1997; Lituchy & Reavley, 2004; Mueller & Thomas, 2001; Thomas & Mueller, 2000), while others examine whether characteristics and traits that distinguish between entrepreneurs and nonentrepreneurs are similar or different in various countries (Baum et al., 1993; Beugelsdijk & Noorderhaven, 2005; McGrath et al., 1992). Though some of the findings of these studies are inconsistent (e.g., Baum et al., 1993; McGrath et al., 1992), scholarly understanding of what entrepreneurs have in common internationally as well as what distinguishes them from nonentrepreneurs has been generally enhanced by research in this area (Hayton et al., 2002).

In each of these studies, researchers examined particular traits and behaviors that capture different facets of the entrepreneur as defined in the extant literature. The specific traits chosen in these studies are generally not intended as a comprehensive description of entrepreneurs but are assumed to be "representative of the personal characteristics" necessary for entrepreneurship (Thomas & Mueller, 2000, p. 291). The selection of characteristics in almost all of these studies appears to be based, implicitly or explicitly, on three attributes Brockhaus (1982) identified as being associated with entrepreneurial behavior: need for achievement, internal locus of control, and risk-taking propensity. These characteristics continue to be seen as classic themes in individual entrepreneurship research (Beugelsdijk & Noorderhaven, 2005).

The assumptions about entrepreneurial characteristics and attributes underlying extant research are based on theory and evidence primarily generated in the United States. Historically, entrepreneurship was the domain of scholars working in U.S. institutions.

Table 1
Entrepreneurship Studies of Traits Across Cultures

Study (Year)	Countries Studied	Traits	Sample Used
Hisrich (1988)	Northern Ireland	Independence, energetic, competitive, confidence, goal-orientation	Entrepreneurs Venture initiators
Shane, Kolvereid, & Westhead (1991)	Britain, New Zealand, Norway	Independence, desire for recognition, need to be a part of continuous learning	
McGrath, MacMillan, & Scheinberg (1992)	Australia, Finland, Portugal, Sweden, U.S.- Puerto Rico, Canada, Italy, China, United States	Power distance, individualism, uncertainty avoidance, masculinity	Entrepreneurs and nonentrepreneurs
Baum et al. (1993)	United States, Israel	Need for achievement, affiliation, dominance, autonomy	CEOs and managers
Green, David, Dent, & Tyshkovsky (1996)	Russia	Need for achievement, economic locus of control, Protestant work ethic, intrinsic work motivation	Junior and middle managers
Kaufmann, Welsh, & Bushmarin (1996)	Russian Republic	Locus of control	Business owners
Carland & Koiranen (1997)	United States, Finland	Need for achievement, risk-taking propensity	Business owners
Koiranen, Hyrsky, & Tuunanen (1998)	United States, Finland	Innovativeness, risk-taking propensity	Business owners
Nicholson (1998)	United Kingdom	Neuroticism, extraversion, openness to experience, agreeableness, conscientiousness	Managers and leaders
Thomas & Mueller (1998)	United States, Canada, Ireland, Great Britain, Australia, Venezuela, Columbia	Risk-taking, locus of control, energetic, innovativeness	University students
Mueller & Thomas (2001)	United States, Canada, Ireland, Croatia, Czech Republic, Slovenia, Germany, China, Belgium	Innovativeness, locus of control, entrepreneurial orientation	3rd- and 4th-year university students
Ardichvili & Gasparishvili (2003)	Russia, Georgia	Power distance, individualism, uncertainty avoidance, masculinity	Managers, employees
Lituchy & Reavley (2004)	Poland, Czech Republic	Need for achievement, risk taking, ambiguity, intuition, flexibility, need for autonomy, self-confidence, internal locus of control, adaptability, dominance, commitment	Business owners
Mueller (2004)	United States, Canada, Ireland, Croatia, Czech Republic, Slovenia, Germany, China, Belgium, Colombia, Ecuador, Mexico, Panama, Poland, Romania, Russia, Singapore	Locus of control, risk-taking propensity, innovativeness	Students
Beugelsdijk & Noorderhaven (2005)	12 European countries	Independence, hard work, imagination, thrift, determination, perseverance, obedience	Self-employed versus general population

(continued)

Table 1 (continued)

Study (Year)	Countries Studied	Traits	Sample Used
van Eden, Louw, & Venter (2005)	United States, South Africa, Netherlands	Risk-taking, tolerance for ambiguity and uncertainty, money sense	University graduate students
Nair & Pandey (2006)	India	Innovativeness, locus of control	Entrepreneurs
Yetim & Yetim (2006)	Turkey	Individualism, collectivism, power distance, uncertainty avoidance	Entrepreneurs
Kessler (2008)	Austria, Czech Republic	Need for achievement	Business owners

Note: This table includes only studies that cross-culturally examined entrepreneurial traits, that is, compared the United States to any other country or examined entrepreneurial traits in any country other than the United States.

The “founding fathers” of the field (Ahl, 2006, p. 599) described individuals who engaged in entrepreneurship based on the traits and values respected and admired in U.S. society at the time (Thomas & Mueller, 2000). Weber (1920) emphasized the role of the Protestant work ethic in shaping people’s desire and ability to engage in entrepreneurship. Schumpeter (1934) described entrepreneurs as leaders who are driven by the will to succeed and introduce new innovations by overcoming constraints that usually deter others. McClelland (1961) believed personality characteristics such as need for achievement, risk-taking propensity, and willingness to assume personal responsibility were key to entrepreneurship. Rotter (1966) argued that entrepreneurs possess high internal locus of control, defined as the belief that the future can be controlled through one’s effort. In a recent article, Ahl (2006) summarized the U.S.-derived entrepreneurial profile as that of “an unusual and extraordinary figure with levels of achievement orientation, optimism, self-efficacy, internal locus of control, cognitive skills, and tolerance of ambiguity above the ordinary” (p. 599).

Entrepreneurship researchers studying characteristics and behaviors associated with entrepreneurs internationally adopted uncritically the assumptions about entrepreneurs rooted in the North American culture. The conception of entrepreneur in the international entrepreneurship literature assumes that the “American entrepreneurial archetype” is universal and examines characteristics associated with entrepreneurs through an ethnocentric lens (Thomas & Mueller, 2000, p. 298). Most recent definitions of international entrepreneurship also incorporate the three North American–derived dimensions of entrepreneurial behavior—innovation, proactiveness, and risk taking (Young, Dimitratos, & Dana, 2003; Zahra & George, 2002). For Zahra (1993) international

entrepreneurship is about risk-taking behavior, while McDougall and Oviatt (2000) see international entrepreneurship research as the study of “innovative, proactive, and risk-taking behavior that crosses or is compared across national boundaries” (p. 904). Two decades ago, Peterson (1988) noted that almost all prevailing theories of entrepreneurship and most empirical evidence are North American in character; that is, “The U.S. culture of individualism and achievement has dominated the world view of entrepreneurship” (p. 1). A major drawback of this limited focus is that international research continues to use a North American lens to study entrepreneurship (Thomas & Mueller, 2000) and ignores the fact that entrepreneurship may manifest differently in different countries.

As international interest in entrepreneurship increases, it becomes important to examine characteristics associated with entrepreneurs in other countries without assuming that the North American archetype will generalize to other countries. Cultural psychology suggests that the social and cultural environment people live in influences their interpretation of the phenomena around them (Markus & Kitayama, 1998). The cognitive frameworks used to process information related to encoding, processing, and recalling specific events and behavior are influenced by culture and influence the worldview of people living in that culture (Kashima, 2005; Mitchell, Smith, Seawright, & Morse, 2000). Values and ideologies prevalent in society act as a determinant of culture-specific prototypes (Kitayama, 2002). Typical characteristics, behaviors, and actions tend to be construed differently across cultures. If prototypical concepts or schemata about characteristics and traits associated with the same object or persons vary across cultures, such differences may also be found in entrepreneurship.

Cross-cultural leadership research demonstrates that national culture influences prototypical leadership attributes (House, Wright, & Aditya, 1997). Characteristics considered prototypical of leaders tend to differ across cultures. Gerstner and Day (1994) and O'Connell, Lord, and O'Connell (1990) presented evidence for a relationship between national culture and leadership concepts. Even countries within the same geopolitical region tend to have cross-cultural differences in typical leader profiles. For example, a study of more than 6,000 people in 22 European countries found that leadership concepts are culturally endorsed and traits and behaviors associated with leaders vary by national culture (Brodbeck et al., 2000). Similarly, research on leadership behaviors in countries belonging to the Association of Southeast Asian Nations revealed differences in endorsement of specific items across countries (Taormina & Selvarajah, 2005). Just as attributes and behaviors associated with leaders vary by national culture, entrepreneurs may also be perceived and construed differently in different cultures.

Thus, the research question in this study is, What are the similarities and differences in characteristics attributed to entrepreneurs in India, Turkey, and the United States?

Method

Sample

The sample for this study was drawn from a large data set containing responses to a survey of business students at schools in three countries: India, Turkey, and the United States. Data from these three countries provided us a good opportunity to examine cross-cultural similarities and differences in characteristics attributed to entrepreneurs in countries that are similar (constitutionally secular, democratic, capitalist societies), yet very different from each other. Questionnaires were administered in a classroom setting by local professors. Though student samples are generally convenient and accessible and allow researchers more control over the data collection environment (Mueller & Thomas, 2001), there were several additional reasons for collecting data from business students.

First, the identification of a population of practicing entrepreneurs across a wide sample of countries is extremely difficult (Mueller, 2004). Many countries do not maintain records of new business startups, and many entrepreneurs never register their

businesses, especially in developing countries, where they might be subjected to impediments imposed by governmental bureaucracies. Second, entrepreneurship scholars and researchers believe that today's university students arguably represent a significant share of the pool of potential entrepreneurs in both developed and developing countries (Mueller & Thomas, 2001).³ Students with formal business education are more likely to have higher awareness and understanding of business issues (Zhang & Yang, 2006) and more positive views about entrepreneurship (Singh & DeNoble, 2003). As the demands of technology and globalization increase, the need for university-trained entrepreneurs with business education will become more evident, and success will increasingly be influenced by the founder's education and training (Mueller, 2004). Third, sampling only business students enhanced cross-national comparability by effectively controlling for important variables such as experience, literacy, and education across countries (Mueller & Thomas, 2001).

Measures

Participants responded to the 92-item Schein Descriptive Index (SDI) by rating the degree to which each attribute (traits or behaviors) is characteristic of entrepreneurs. The SDI is a robust and well-accepted instrument in organizational research and has been used to examine perceptions of characteristics and traits attributed to managers (Brenner, Tomkiewicz, & Schein, 1989; Deal & Stevenson, 1998), accountants (Stivers & Campbell, 1995), college teachers (Kasi & Dugger, 2000), military leaders (Boyce & Herd, 2003), and entrepreneurs (Fagenson & Marcus, 1991; Gupta, Turban, Wasti, & Sikdar, 2005) in samples drawn from students (Heilman, Block, Martell, & Simon, 1989), teachers (Foster, 1994; Kasi & Dugger, 2000), cadets (Boyce & Herd, 2003), working executives (Brenner et al., 1989; Duehr & Bono, 2006), and entrepreneurs (Fagenson & Marcus, 1991) both nationally and internationally (Foster, 1994; Orser, 1994; Sumer, 2006), including cross-cultural comparisons (Fullagar, Sumer, Sverke, & Slick, 2003; Sauers, Kennedy, & O'Sullivan, 2002; Schein & Mueller, 1992). Though the SDI was developed in the early 1970s in the United States (Schein, 1973, 1975), it continues to be a popular choice for cross-cultural comparative studies because it encompasses a wide range of human attributes and behaviors (Sumer, 2006).⁴

The instructions on the form of the descriptive index were as follows:

On the following pages you will find a series of descriptive terms commonly used to characterize people in general. Some of these terms are positive in connotation, others are negative, and some are neither very positive nor very negative. We would like you to use this list to tell us what you think entrepreneurs are like. Please rate each word or phrase in terms of how characteristic it is of entrepreneurs.

Consistent with Schein (1973, 1975, 2001), respondents rated the descriptive terms on a 5-point scale ranging from 1 (*not characteristic*) to 5 (*characteristic*), including a neutral rating of 3 (*neither characteristic nor uncharacteristic*).

Analyses and Results

Table 2 presents the descriptive information about the sample.

The first step of our analysis was to identify descriptive items considered characteristic of entrepreneurs in each of the three countries. Stivers and Campbell (1995) recommended “mean rating of 4 or higher” to consider an item as characteristic of the target population. In our sample, we found that 36 items had a mean rating of 4 or higher in the U.S. sample, 26 items in the Indian sample, and 40 items in the Turkish sample. In all, 48 of the 92 descriptive items were perceived as characteristic of entrepreneurs in at least one of the three countries. Table 3 identifies characteristics that were perceived to be associated with entrepreneurs in each of the three countries.

We then performed multivariate analysis of variance (MANOVA), with the 48 descriptive items as the dependent variables and country of respondents as the independent variable. The MANOVA results indicated a significant effect for country, Wilks’s Lambda = .005, $F(2, 383) = 1,298.89$, $p = .00$, which suggests that the three country samples were not rated similarly on all 48 items. We then performed pairwise comparisons to contrast endorsement levels; we used the Bonferroni adjustment to adjust for multiple comparisons. Table 3 identifies the items that were found to have statistically significant cross-country difference in endorsement levels.

Researchers suggest that MANOVA should be followed by discriminant analysis to further investigate the extent of difference among the three groups and find the combination of variables (descriptors) that best discriminates among or

Table 2
Descriptives

Variable	United			
	States	India	Turkey	Total
Number of respondents	160	87	177	424
Mean age	21.92	24.54	22.47	22.98
Gender: Male	65	64	91	220
Female	58	2	61	121
Missing	37	21	25	83

Note: Missing refers to respondents who did not indicate their gender.

separates the different groups (Huberty & Barton, 1989; Stivers & Campbell, 1995). We used the 48 descriptive items identified above for the discriminant analysis. With three groups, the analysis resulted in two separate canonical functions. The first function accounted for 82.8% of the variance, with the second function accounting for the remainder. When these functions were used to classify the responses of our respondents, the group being evaluated (India, Turkey, and the United States) was correctly predicted 77.4% of the time. Following Sauers et al. (2002), we cross-validated this classification, which slightly reduced the correct percentage of classification to 74.6%, a “hit rate” (percentage of correct classification) that still exceeds Hair, Anderson, and Tatham’s (1995, p. 74) rule of thumb for determining predictive efficacy.⁵ We examined our predicted classifications for individual groups and found the classifications were correct 75.4% of the time for the United States, 64.4% of the time for India, and 85.7% of the time for Turkey. These percentages are considered acceptable for difficult-to-predict phenomena such as entrepreneurship (McGrath et al., 1992) and indicate significant differences in the reported perceptions of the three groups. If the groups were similar, it would be difficult to classify them correctly (Stivers & Campbell, 1995).

Figure 1 displays the group centroids for each group. Group centroids are the mean values of the standardized linear combinations of predictor variables for the three groups (Sauers et al., 2002) and indicate the extent to which one group endorses the items in a particular function. The centroid values indicate that Function 1 distinguishes Turkey (1.414) from India (−.684) and the United States (−1.283) and that Function 2 distinguishes India (−1.035) from Turkey (.116) and the United States (.486).

Table 3
Characteristics

Curious ¹²³	Feelings not easily hurt	Vulgar	Competent ¹²³
Vigorous	Quarrelsome	Emotionally stable ^{1 bc}	Humanitarian values ^{123 ab}
Consistent ¹³	Dominant	Sociable ^{13 bc}	Steady ^{3 bc}
Timid	Industrious ^{3 bc}	Devious	Knows the way of the world ^{3 bc}
High need for power	Tactful ^{3 bc}	Aggressive	Assertive ^{3 bc}
Sophisticated ^{13 ac}	Well informed ¹³	Interested in own appearance ^{12 ac}	Dawdler and procrastinator
Sympathetic ^{123 bc}	Helpful ^{123 bc}	High self-regard ^{13 c}	Strong need for
Talkative	Not uncomfortable about being aggressive	Independent ¹³	Modest ^{3 ac}
Fearful	Strong need for achievement ¹²³	Grateful ^{123 b}	Self-reliant ^{123 ab}
Strong need for security	Reserved	Desire for friendship ^{13 ac}	Frank ³
Adventurous	Deceitful	Easily influenced	Understanding ^{123 c}
Forceful	Ambitious ¹²	Frivolous	Courteous ¹³
Leadership ability ^{1 ac}	Generous ¹²³	Exhibitionist ^{2 abc}	Authoritative
Analytical ability ²³	Not conceited about appearance	Intelligent	Prompt ^{2 bc}
Values pleasant surroundings ^{123 b}	Bitter	Aware of feelings of others ^{123 ab}	Self-confident ^{123 b}
Competitive ¹²	Logical ¹²³	Persistent ^{13 abc}	Intuitive ¹
Neat	Strong need for social acceptance	Passive	Sentimental ²
Wavering in decision	Skilled in business matters ^{13 ac}	Objective	Able to separate feelings from ideas
Uncertain	Hasty	Decisive	Submissive
Cheerful ^{123 c}	Selfish	Speedy recovery from emotional disturbance	Kind ¹²³
Creative ^{3 ac}	Obedient	Nervous	Self-controlled ¹²³
High need for autonomy ^{23 bc}	Demure	Direct	Hides emotions
Desire to avoid controversy	Desires responsibility ^{123 ac}	Shy Firm ^{3 b}	

Note: Superscripts: 1 = mean higher than 4.00 in the United States; 2 = mean higher than 4.00 in India; 3 = mean higher than 4.00 in Turkey. Subscripts: a = United States significantly different from India at $p < .05$; b = United States significantly different from Turkey at $p < .05$; c = India significantly different from Turkey at $p < .05$.

The horizontal axis in Figure 1 represents Function 1. Variable items with a high positive loading on Function 1 are consistent with the Turkish group, whereas those items with a negative loading on Function 1 are more likely to be consistent with the Indian or U.S. group. The vertical axis represents Function 2. Variables (or items) with a high loading on Function 2 are likely to be consistent with the Indian group, and those with negative loadings on Function 2 are consistent with the U.S. group. The larger the distance between two group centroids, the less similar the two groups. Thus, it appears the U.S. and Indian respondents are more alike in their perception of entrepreneurs, compared with the Turkish group.

Last, we examined the functions for their item loadings (Lattin, Carroll, & Green, 2003). These item loadings confirm that the characteristics associated with entrepreneurs that distinguish between the three countries as found in the discriminant

analysis are quite consistent with the results found in the MANOVA presented earlier. Sauers et al. (2002) recommend using loadings of 0.25 for items in the SDI. Table 4 displays the items that correlated 0.25 or higher with the first discriminant function. These items serve to distinguish the Turkish group most significantly from the U.S. and Indian groups. Thus, *sympathetic*, *industrious*, and *knows the ways of the world* were highly ascribed to entrepreneurs, while *exhibitionist* was not, by the Turkish respondents, compared with the Indian and U.S. respondents.

Table 5 presents the items that distinguished the Indian group most significantly (0.25 or higher) from the U.S. group (as identified by Function 2). Thus, *interested in own appearance*, *sophisticated*, and *persistent* were highly attributed to entrepreneurs, while *desire for friendship* and *cheerful* were not, by the Indian respondents, compared with the U.S. and Turkish respondents.

Figure 1
Group Centroids Plotted on the Discriminant Functions

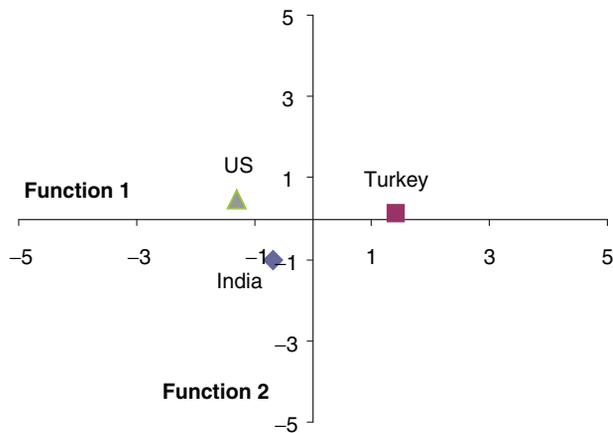


Table 4
Items Discriminating Turkey From India and the United States According to Function 1

Characteristic	Correlation Within Function 1
Sympathetic	0.59
Knows the way of the world	0.47
Assertive	0.27
Industrious	0.28
High self-regard	0.29
Desire for friendship	0.28
Exhibitionist	-0.36
Competent	-0.37
Tactful	-0.37
Self-reliant	-0.29
Sociable	-0.44

Discussion

The purpose of this study was to examine the similarities and differences in characteristics attributed to entrepreneurs across cultures. Some scholars have recognized that there is a widespread ethnocentric bias in extant entrepreneurship research that treats the North American definition of entrepreneurs as universal (Ahl, 2006; Thomas & Mueller, 2000). The North American worldview dominant in our field has limited scholarly understanding of characteristics and attributes ascribed to entrepreneurs in various countries (Mueller & Thomas, 2001). In this study we sought to advance scholarly understanding of characteristics associated with entrepreneurs by people in different countries.

Table 5
Items Discriminating India From Turkey and the United States According to Function 2

Characteristic	Correlation Within
	Function 2
Sophisticated	0.64
Sociable	0.27
Interested in own appearance	0.37
Persistent	0.59
Desire for friendship	-0.28
Firm	-0.44
Cheerful	-0.33
Tactful	-0.28
Emotionally stable	-0.24

We found that some attributes, such as *competent, strong need for achievement, self-reliant, curious, intelligent, and logical*, were attributed to entrepreneurs by people in all three countries in our sample. Many of these attributes are typically considered characteristic of entrepreneurs in North America and Western Europe (Ahl, 2006). Thus, our findings support the notion that some characteristics traditionally associated with entrepreneurs may be common across cultures. We also found that *sympathetic, helpful, generous, kind, aware of feelings of others, humanitarian values, understanding, and grateful* were perceived to be characteristic of entrepreneurs in all the three countries. It is notable that Ahl (2006) identified these characteristics as considered antithetical to entrepreneurship in extant literature. Entrepreneurial cognition research (e.g., Mitchell et al., 2000) suggests that because many challenges and behaviors associated with entrepreneurship tend to be similar across countries (e.g., raising money for the venture), there may be cross-cultural similarities in the characteristics and attributes ascribed to them. Our findings provide support for cross-cultural similarities in entrepreneurial characteristics. Evidence for such cross-cultural similarity serves to provide a more general explanation for entrepreneurial activity across countries, despite the differences between countries, such as those found between India, Turkey, and the United States.

Notably, we also found that many of the characteristics attributed to entrepreneurs in all three countries were endorsed at significantly different levels across countries. In other words, even though respondents in India, Turkey, and the United States perceived some of the same attributes and behaviors as characteristic

of entrepreneurs, the extent to which they emphasized these characteristics varied. For example, *helpful* was perceived as significantly more characteristic of entrepreneurs in Turkey than in India or the United States, *aware of feelings of others* was endorsed significantly more in the United States than in India or Turkey, and *desires responsibility* was attributed to entrepreneurs significantly more in India than in the United States or Turkey. The finding that some attributes are perceived to be characteristic of entrepreneurs at significantly different levels in the three countries suggests that international entrepreneurship research cannot simply assume that the “American entrepreneurial archetype” (Thomas & Mueller, 2000) completely generalizes around the world.

Another important contribution of our research is the identification of attributes perceived to be associated with entrepreneurs in some countries, but not in others. As is revealed through the MANOVA and confirmed by the discriminant analysis, there are some characteristics that are associated with entrepreneurs in some countries but not others. For example, *knows the ways of the world*, *assertive*, and *industrious* were rated at significantly higher levels in Turkey, while *exhibitionist* and *self-reliant* were rated at significantly lower levels compared with both the United States and India. Similarly, *interested in own appearance* was rated at significantly higher levels, and *desire for friendship*, *firm*, *cheerful*, and *tactful* were rated at significantly lower levels in India compared with the United States or Turkey. Cultural psychologists posit that people in every culture hold cognitive prototypes that consist of a constellation of characteristics associated with particular categories (Kitayama, 2002), such as those identified in this study. Researchers who examine and compare entrepreneurial characteristics internationally needs to be cognizant of such cross-cultural differences in attributes perceived to be associated with entrepreneurs.

In this study, we investigated perceived attributes of entrepreneurs. Is there any correspondence between perceived characteristics and actual attributes? Schein (2007) reviewed the large body of literature on perceived characteristics of managers and reported that, indeed, managers describe themselves as possessing characteristics generally attributed to them in society. Fagenson and Marcus (1991) examined characteristics attributed to entrepreneurs by entrepreneurs and found that entrepreneurs report having many stereotypical attributes that others use to describe them. More broadly, empirical evidence indicates that characteristics attributed to different

occupations by students differ little from those attributed by other citizens because such social beliefs are widely shared in society (Cejka & Eagly, 1999). McGarty, Yzerbyt, and Spears (2002) argued that there is a “shared cultural pool” (p. 6) of attributions, representations, and knowledge from which people sample and that this produces commonalities in perceptions about any group in a society. Many social psychologists assert that though these widely shared beliefs about occupational characteristics may not be an exact match with reality, they tend to be quite consistent with reality. For example, military cadets perceive their leaders to be aggressive, forceful, and having a high need for autonomy, which is consistent with the enduring masculine culture of the U.S. military (Boyce & Herd, 2003). Thus, it is quite possible that the perceived attributes of entrepreneurs found in the three countries are consistent with the actual attributes of entrepreneurs in these countries. Certainly, more research is needed to investigate the extent to which attributes perceived to be associated with entrepreneurs are actually possessed by entrepreneurs.

Limitations and Recommendations for Future Research

Like any other study, the research reported here has certain limitations. First, the common practice of using university student samples in entrepreneurship research is often frowned on; however, many scholars believe that using students may be appropriate for certain entrepreneurship topics (Urban, 2006), especially those involving cross-cultural research, in which student samples force homogeneity of respondents across countries (Mueller, 2004). Using well-matched samples in cross-cultural research is important when researchers are interested in similarities and differences *between* national cultures (Hofstede, 2002). Perhaps this explains why many studies examining characteristics attributed to entrepreneurs internationally use student samples (Mueller & Thomas, 2001; van Eden et al., 2005). We encourage future research to examine characteristics perceived to be associated with entrepreneurs by other people, such as bank officers, venture capitalists, and actual entrepreneurs.

Second, it is important to note that India, Turkey, and the United States are heterogeneous countries with different subcultures. Data collected from one region in any of these countries may not be representative of the entire country. Though data collection from multiple regions in each of the three countries

may enhance the generalizability of our findings, national boundaries are generally the most practical proxy for culture in international research (Hofstede, 2002). We encourage future research to examine differences in characteristics attributed to entrepreneurs by different subcultures in the same country (e.g., Morris & Schindehutte's 2005 study of six subcultures in the state of Hawaii).

Third, several scholars conducting cross-national research have highlighted the pitfalls associated with using theories, methods, and research instruments developed by U.S. scientists (Adler & Graham, 1989; Morris, Davis, & Allen, 1994). Unfortunately, the use, for international research and cross-cultural comparisons, of theories, methods, and instruments developed in the United States is not limited to organizational research but is common in almost all behavioral research (Bond & Smith, 1996). Though our study also employed a descriptive index developed in the United States, the fact that prior research has used and validated it internationally in several countries provides some assurance of the robustness of the instrument and our findings. Nevertheless, we note that Hofstede and Bond (1988) correctly argued that even the most well-developed Western instruments may not capture all aspects of a phenomenon in other cultures. Accordingly, it is possible that some characteristics are attributed to entrepreneurs in India and Turkey that are invisible to researchers using Western instruments such as the SDI. Only the use of more-inductive methods in other countries can mitigate such limitations in future studies. We encourage future research to develop country-specific lists of characteristics to examine similarities and differences in attributes associated with entrepreneurs. For example, in a study conducted in Germany, Sczesny (2003) supplemented a list of leadership-related characteristics derived from extant literature with one generated from job advertisements in German newspapers. We believe future research will benefit from the development of similar lists of characteristics and behaviors of entrepreneurs based theories and samples from other countries.

Finally, our study is limited to three countries with different cultures. Though our findings would be much stronger if we had more countries in our sample, international data collection is hampered by various factors, including access to appropriate researchers and population in other countries, the expenses involved, and linguistic and cultural differences (McDougall & Oviatt, 2003). We encourage future research that examines characteristics associated with

entrepreneurs in other countries. Comparing the cultural clusters identified in the GLOBE leadership project (Gupta, Hanges, & Dorfman, 2002) and the list of countries where entrepreneurial characteristics research has been conducted, we find that many research studies have been conducted in some regions (e.g., the United States, Canada, and the United Kingdom, in the Anglo cluster), whereas many other important countries remain underexamined (e.g., Iran in the southern Asia cluster and Brazil in Latin America). We encourage future research that extends research on characteristics and traits in countries where such research has not yet been conducted.

Research and Practical Implications

Considered in a larger context, our study paralleled recent studies on cross-cultural similarities and differences in characteristics associated with leaders internationally (Brodbeck et al., 2000; Taormina & Selvarajah, 2005) and extended previous research on characteristics and traits in entrepreneurship (Mueller, 2004; Thomas & Mueller, 2000). The dominant view of entrepreneurs as risk taking, proactive, and innovative has biased international entrepreneurship research toward looking for typical American characteristics in entrepreneurs in other countries. Where previous research had been limited to examining a few characteristics internationally, the current study used a broad measure of human personality and behavior. Our results suggest that, despite some similarities, there are important differences in characteristics perceived to be associated with entrepreneurs internationally. We hope that future international entrepreneurship research will adopt a less ethnocentric view so that we can further our understanding of implicit entrepreneurship theories in other countries, as leadership researchers are engaged in doing. For example, large-scale research studies such as the GLOBE project in leadership can help entrepreneurship researchers identify the countries that share a similar entrepreneurial profile, as well as understand the variations between country clusters that endorse different profiles.

The results of our research may prove helpful to teachers and counselors who are interested in encouraging entrepreneurship among university students (Katz, 2007). The findings of our research suggest that country-specific characteristics and attributes should be utilized to better match students with careers in entrepreneurship. If some attributes are perceived as characteristic of entrepreneurship in the

United States but not in another country, these characteristics may be played down or even eliminated from texts, case studies, and media discussions about entrepreneurship in that country, although locally endorsed characteristics should be highlighted and encouraged. This practice will bring young adults, such as college students, to view themselves as interested and viable candidates for a profession that requires characteristics positively endorsed in their culture. Also, opportunities should be identified to help young students interact with actual entrepreneurs in order to help the students better understand the characteristics and traits associated with entrepreneurship. When entrepreneurs are defined by means of characteristics and traits endorsed in a local context, more college students may see entrepreneurship as desirable and feasible in their country (Krueger, 1993).

Conclusions

In this study, we examined characteristics and attributes perceived to be associated with entrepreneurs in three different countries—India, Turkey, and the United States. Our findings indicate that some characteristics associated with entrepreneurs may be shared across borders. It is interesting that some of these characteristics are commonly associated with entrepreneurs in extant literature, while others are not. Though exploratory, our findings suggest that entrepreneurship researchers may consider revising the “American entrepreneurial archetype” to be consistent with the beliefs held by young men and women today.

Our findings also highlight important differences in characteristics perceived to be associated with entrepreneurs in the three countries. Some attributes are perceived to be characteristics of entrepreneurs in all the countries but are endorsed at significantly different levels, whereas some attributes are considered characteristic of entrepreneurs in one country and not another. Thus, our results suggest that international entrepreneurship research on characteristics and behaviors should consider how entrepreneurship is construed in different cultures rather than simply assuming that the characteristics typically associated with entrepreneurs in the United States will easily generalize to other countries.

Notes

1. Using data collected from 61 countries, the GLOBE project identified 10 different cultural groups (or clusters) in the world (Gupta, Hanges, & Dorfman, 2002). India, Turkey, and the

United States were categorized in the Southern Asia, Arabic, and Anglo cluster, respectively.

2. Our review was limited to studies that empirically examined entrepreneurial characteristics internationally. We excluded research that compared entrepreneurial characteristics internationally only theoretically (e.g., Farid, 2007), as well as studies that discussed entrepreneurial characteristics only within the United States (e.g., Morris & Schindehutte, 2005; Singh & DeNoble, 2003). Last, our review is intended to be representative rather than comprehensive.

3. An anonymous reviewer commented that according to the data collected by the Global Entrepreneurship Monitor, only about 10% of students will actually become entrepreneurs. This is a valid criticism of entrepreneurship education, to which entrepreneurship scholars have responded that the contribution of college education to entrepreneurship is often overlooked (Katz, 2007). Katz (2007) argued that because “popular media focuses on famous entrepreneurs who did not have a college education” (p. 213), the large numbers of college graduates who start their own business go unnoticed. Given the increasing emphasis on entrepreneurship in university education around the world, it appears that scholars, teachers, and policy makers want to see more college graduates become entrepreneurs in the future.

4. The 92 items of the SDI are listed in Table 3.

5. To put our predictive efficacy in perspective, we compare it to Betz, Borgen, and Harmon’s (2006) study of 1,103 U.S. adults in 21 occupations. Their highest “hit rate” (percentage of correct classification) was 67%, well below the rate found in our sample.

References

- Acs, Z., Dana, L., & Jones, M. V. (2003). Towards new horizons: The internationalization of entrepreneurship. *Journal of International Entrepreneurship, 1*, 5-12.
- Adler, N. J., & Graham, J. L. (1989). Cross-cultural interaction: The international comparison fallacy? *Journal of International Business Studies, 20*(3), 515-537.
- Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship Theory and Practice, 30*(5), 595-621.
- Ardichvili, A., & Gasparishvili, A. (2003). Russian and Georgian entrepreneurs and non-entrepreneurs: A study of value differences. *Organization Studies, 24*(1), 29-46.
- Baron, R. A. (2002). OB and entrepreneurship: The reciprocal benefits of closer conceptual links. *Research in Organizational Behavior, 24*, 225.
- Baum, J. R., Olian, J. D., Erez, M., Schnell, E. R., Smith, K. G., Sims, H. P., et al. (1993). Nationality and work role interactions: A cultural contrast of Israeli and US entrepreneurs’ versus managers’ needs. *Journal of Business Venturing, 8*, 499-512.
- Betz, N. E., Borgen, F. H., & Harmon, L. W. (2006). Vocational confidence and personality in the prediction of occupational group membership. *Journal of Career Assessment, 14*(1), 36-55.
- Beugelsdijk, S., & Noorderhaven, N. (2005). Personality characteristics of self-employed: An empirical study. *Small Business Economics, 24*, 159-167.
- Bond, R., & Smith, P. B. (1996). Culture and conformity: A meta-analysis of studies using Asch’s (1952B, 1956) line judgment task. *Psychological Bulletin, 119*(1), 111-137.

- Boyce, L. A., & Herd, A. M. (2003). The relationship between gender role stereotypes and requisite military leadership characteristics. *Sex Roles, 49*(7/8), 265-378.
- Brenner, O. C., Tomkiewicz, J., & Schein, V. E. (1989). The relationship between sex role stereotypes and requisite management characteristics revisited. *Academy of Management Journal, 32*(3), 662-669.
- Brockhaus, R. H. (1982) The psychology of the entrepreneur. In C.A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *Encyclopedia of entrepreneurship*. Englewood Cliffs, NJ: Prentice Hall.
- Brodbeck, F. C., Frese, M., Akerblom, S., Audia, G., Bakacsi, G., Bendova, H., et al. (2000). Cultural variation of leadership prototypes across 22 European countries. *Journal of Occupational and Organizational Psychology, 73*(1), 1-29.
- Carland, J. C., & Koiranen, M. (1997, June). The exportation of the American model of entrepreneurship: Reality or illusion? A comparative trait study of American and Finnish entrepreneurs. Paper presented at ICSB 42nd World Conference, San Francisco.
- Chiles, T. H., Bluedorn, A. C., & Gupta, V. K. (2007). Beyond creative destruction and entrepreneurial discovery: A radical Austrian approach to entrepreneurship. *Organizational Studies, 28*(4), 467-493.
- Cejka, M. A., & Eagly, A. H. (1999). Gender-stereotypic images of occupations correspond to the sex segregation of employment. *Personality and Social Psychology Bulletin, 25*(4), 413-423.
- Cox, L. W. (1997). *International entrepreneurship: A literature review*. International Council of Small Business Proceedings. Retrieved September 24, 2008, from <http://sbaer.uca.edu/research/icsb/1997/pdf/32.pdf>
- Deal, J. J., & Stevenson, M. A. (1998). Perceptions of female and male managers in the 1990s: Plus ca change. *Sex Roles, 38*(3/4), 287-300.
- Dimitratos, P., & Jones, M. V. (2005). Future directions for international entrepreneurship research. *International Business Review, 14*(2), 119-128.
- Duehr, E. E., & Bono, J. E. (2006). Men, women and managers: Are stereotypes finally changing? *Personnel Psychology, 59*(4), 815-846.
- Fagenson, E. A., & Marcus, E. C. (1991). Perceptions of the sex-role stereotypic characteristics of entrepreneurs: Women's evaluations. *Entrepreneurship Theory and Practice, 15*(4), 33-47.
- Farid, M. (2007). Entrepreneurship in Egypt and the US compared: Directions for further research suggested. *Journal of Management Development, 26*(5), 428-440.
- Foster, F. (1994). Managerial sex role stereotyping among academic staff within UK business schools. *Women in Management Review, 9*(3), 17-22.
- Fullagar, C. J., Sumer, H. C., Sverke, M., & Slick, R. (2003). Managerial sex-role stereotyping. *International Journal of Cross Cultural Management, 3*(1), 93-107.
- Gartner, W. B. (1988) "Who is an entrepreneur?" is the wrong question. *American Journal of Small Business, 12*, 11-32.
- Gerstner, C. R., & Day, D. V. (1994). Cross-cultural comparison of leadership prototypes. *Leadership Quarterly, 5*(2), 121-134.
- Green, R., David, J., Dent, M., & Tyshkovsky, A. (1996). The Russian entrepreneur: A study of psychological characteristics. *International Journal of Entrepreneurial Behavior, 2*(1), 49-58.
- Gupta, V., Hanges, P., & Dorfman, P. (2002). Cultural clusters: Methodology and findings. *Journal of World Business, 37*, 11-15.
- Gupta, V. K., Turban, D., Wasti, S. A., & Sikdar, A. (2005, August). *Entrepreneurship and stereotypes: Are entrepreneurs from Mars or from Venus?* Paper presented at the Academy of Management conference, Honolulu, Hawaii.
- Hair, J. F., Anderson, R. E., & Tatham, R. L. (1995). *Multivariate data analysis with readings* (2nd ed.). New York: Macmillan.
- Hayton, J. C., George, G., & Zahra, S. A. (2002). National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship Theory and Practice, 26*(4), 33.
- Heilman, M. E., Block, C. J., Martell, R. F., & Simon, M. C. (1989). Has anything changed? Current characterizations of men, women and managers. *Journal of Applied Psychology, 74*(6), 935-942.
- Hisrich, R. D. (1988). Entrepreneurship: Past present and future. *Journal of Small Business Management, 26*(4), 1-4.
- Hofstede, G. (2002). Dimensions do not exist: A reply to Brendan McSweeney. *Human Relations, 55*(1), 1.
- Hofstede, G., & Bond, M. H. (1988). The Confucius connection: From cultural roots to economic growth. *Organizational Dynamics, 16*(4), 5-21.
- House, R. J., Wright, N. S., & Aditya, R. N. (1997). Cross-cultural research on organizational leadership: A critical analysis and a proposed theory. In P. C. Earley & M. Erez (Eds.), *New perspectives on international industrial/organizational psychology* (pp. 535-625). San Francisco: New Lexington.
- Huberty, C. J., & Barton, R. M. (1989). An introduction to discriminant analysis. *Measurement and Evaluation in Counseling and Development, 22*, 158-168.
- Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A model of strategic entrepreneurship: The construct and its dimensions. *Journal of Management, 29*(6), 963-989.
- Kashima, Y. (2005). Is culture a problem for social psychology? *Asian Journal of Social Psychology, 8*, 19-38.
- Kasi, B., & Dugger, J. C. (2000). Gender equity in industrial technology: The challenge and recommendations. *Journal of Industrial Technology, 16*(4), 1-9.
- Katz, J. A. (2007). Education and training in entrepreneurship. In J. R. Baum, M. Frese, & R. A. Baron (Eds.), *The psychology of entrepreneurship*. Mahwah, NJ: Erlbaum.
- Kaufmann, P. J., Welsh, D. H., & Bushmarin, N. V. (1995). Locus of control and entrepreneurship in the Russian Republic. *Entrepreneurship Theory and Practice, 21*(1), 43-56.
- Kessler, A. (2008). Success factors for new businesses in Austria and the Czech Republic. *Entrepreneurship and Regional Development, 19*(5), 381-403.
- Kilby, P. (2003). The heffalump revisited. *Journal of International Entrepreneurship, 1*(1), 13-29.
- Kitayama, S. (2002). Culture and basic psychological processes: Toward a system view of culture: Comment on Oyserman et al. (2002). *Psychological Bulletin, 128*(1), 89-96.
- Knight, F. (1921). *Risk, uncertainty, and profit*. New York: Houghton Mifflin.
- Koiranen, M., Hyrsky, K., & Tuunanen, M. (1998, January 7-9). Innovativeness and risk-taking propensity: A comparative study on Finnish and US entrepreneurs, small business owners and managers. Paper presented at the Conference on Growth and Job Creation in SMEs, Mikkeli, Finland.
- Krueger, N. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory and Practice, 18*(1), 5-21.

- Kuratko, D. F. (2007). Entrepreneurial leadership in the 21st century: Guest editor's perspective. *Journal of Leadership and Organizational Studies, 13*(1), 1-11.
- Lattin, J., Carroll, J. D., & Green, P. E. (2003). *Analyzing multivariate data*. Pacific Grove, CA: Brooks/Cole, Thomson Learning.
- Lituchy, T. R., & Reavley, M. A. (2004). Women entrepreneurs: A comparison of international small business owners in Poland and the Czech Republic. *Journal of International Entrepreneurship, 2*(1/2), 61-70.
- Markus, H. R., & Kitayama, S. (1998). The cultural psychology of personality. *Journal of Cross-Cultural Psychology, 29*(1), 63-87.
- McClelland, D. C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand Reinhold.
- McClelland, D. C. (1987). Characteristics of successful entrepreneurs. *Journal of Creative Behavior, 21*, 219-233.
- McDougall, P. P. (1989). International versus domestic entrepreneurship: New venture strategic behavior and industry structure. *Journal of Business Venturing, 4*(6), 387-400.
- McDougall, P. P., & Oviatt, B. M. (1997). International entrepreneurship literature in the 1990s and directions for future research. In D. L. Sexton & R. W. Smilor (Eds.), *Entrepreneurship 2000* (pp. 291-320). Chicago: Upstart.
- McDougall, P. P., & Oviatt, B. M. (2000). International entrepreneurship: The intersection of two research paths. *Academy of Management Journal, 43*(5), 902-906.
- McDougall, P. P., & Oviatt, B. M. (2003). *Some fundamental issues in international entrepreneurship*. Retrieved December 9, 2006, from <http://www.usasbe.org/knowledge/whitepapers/mcdougall2003.pdf>
- McGarty, C., Yzerbyt, V., & Spears, R. (2002). *Stereotypes as explanations: The formation of meaningful beliefs*. Cambridge, UK: Cambridge University Press.
- McGrath, R. G., MacMillan, I. C., & Scheinberg, S. (1992). Elitists, risk-takers and rugged individualists? An exploratory analysis of cultural differences between entrepreneurs and non-entrepreneurs. *Journal of Business Venturing, 7*(2), 115-135.
- Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2004). Domain of entrepreneurial cognition research. *Entrepreneurship Theory and Practice, 28*(6), 505-518.
- Mitchell, R. K., Smith, B., Seawright, K. W., & Morse, E. A. (2000). Cross-cultural cognitions and the venture creation decision. *Academy of Management Journal, 43*(5), 974-993.
- Morris, M. H., Davis, D. L., & Allen, J. W. (1994). Fostering corporate entrepreneurship: Cross-cultural comparisons of the importance of individualism versus collectivism. *Journal of International Business Studies, 25*(1), 65-90.
- Morris, M., & Schindehutte, M. (2005). Entrepreneurial values and the ethnic enterprise: An examination of six subcultures. *Journal of Small Business Management, 43*(4), 453-479.
- Mueller, S. L. (2004). Gender gaps in potential for entrepreneurship across countries and cultures. *Journal of Developmental Entrepreneurship, 9*(3), 199-220.
- Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of Business Venturing, 16*, 51-75.
- Nair, K. R. G., & Pandey, A. (2006). Characteristics of entrepreneurs: An empirical analysis. *Journal of Entrepreneurship, 15*, 47-61.
- Nicholson, N. (1998). Personality and entrepreneurial leadership: A study of the heads of the UK's most successful independent companies. *European Management Journal, 16*(5), 529-539.
- O'Connell, M. S., Lord, R. G., & O'Connell, M. K. (1990, August). *Difference in Japanese and American leadership prototypes: Implications for cross-cultural training*. Paper presented at the annual meeting of the Academy of Management, San Francisco.
- Orser, B. (1994). Sex role stereotypes and requisite management characteristics: An international perspective. *Women in Management Review, 9*(4), 11-19.
- Oviatt, B. M., & McDougall, P. P. (2005). Toward a theory of international new ventures. *Journal of International Business Studies, 36*, 2-8.
- Peterson, R. (1988). Understanding and encouraging entrepreneurship internationally. *Journal of Small Business Management, 26*(2), 1-7.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*(1), 1.
- Sarasvathy, S., & Venkataraman, S. D. (2001). *Strategy and entrepreneurship: Outlines of an untold story*. Oxford, UK: Blackwell.
- Sauers, D. A., Kennedy, J. C., & O'Sullivan, D. (2002). Managerial sex role stereotyping: A New Zealand perspective. *Women in Management Review, 17*(7), 342-347.
- Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management. *Journal of Applied Psychology, 57*, 95-100.
- Schein, V. E. (1975). Relationships between sex role stereotypes and requisite management characteristics among female managers. *Journal of Applied Psychology, 60*, 340-344.
- Schein, V. E. (2001). A global look at psychological barriers to women's progress in management. *Journal of Social Issues, 57*, 675-688.
- Schein, V. E. (2007). Women in management: Reflections and projections. *Women in Management Review, 22*(1), 6-18.
- Schein, V. E., & Mueller, R. (1992). Sex role stereotyping and requisite management characteristics: A cross cultural look. *Journal of Organizational Behavior, 13*(5), 439-447.
- Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Sczesny, S. (2003). A closer look beneath the surface: Various facets of the think-manager-think-male stereotype. *Sex Roles, 49*(7/8), 353-363.
- Shane, S., Kolvareid, L., & Westhead, P. (1991). An exploratory examination of the reasons leading to new firm formation across country and gender (Part 1). *Journal of Business Venturing, 6*(6), 431-445.
- Shapiro, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *Encyclopedia of entrepreneurship*. Englewood Cliffs, NJ: Prentice Hall.
- Singh, G., & DeNoble, A. (2003). Views on self-employment and personality: An exploratory study. *Journal of Developmental Entrepreneurship, 8*(3), 265.
- Stivers, B. P., & Campbell, J. E. (1995). Characterizing accounting consultants: Gender does make a difference. *Journal of Organizational Change, 8*(1), 23-31.
- Sumer, H. C. (2006). Women in management: Still waiting to be full members of the club. *Sex Roles, 55*, 63-72.

- Taormina, R. J., & Selvarajah, C. (2005). Perceptions of leadership excellence in ASEAN nations. *Leadership, 1*(3), 299-322.
- Thomas, A. S., & Mueller, S. L. (2000). A case for comparative entrepreneurship: Assessing the relevance of culture. *Journal of International Business Studies, 31*(2), 287-301.
- Urban, B. (2006). Entrepreneurship in the rainbow nation: Effect of cultural values and ESE on intentions. *Journal of Developmental Entrepreneurship, 11*(3), 171-186.
- van Eden, S., Louw, L., & Venter, D. (2005). Entrepreneurial traits of undergraduate commerce students: A three-country comparison. *Management Dynamics, 14*(3), 26-43.
- Venkataraman, S. (1997). The distinctive domain of entrepreneurship research: An editor's perspective. In J. Katz & R. Brockhaus (Eds.), *Advances in entrepreneurship, firm emergence and growth: Vol. 3* (pp. 119-138). Greenwich, CT: JAI Press.
- Weber, M. (1920). *The Protestant ethic and the spirit of capitalism*. London: Unwin University Books.
- Yetim, N., & Yetim, U. (2006). The cultural orientations of entrepreneurs and employees' job satisfaction: The Turkish small and medium enterprises (SMEs) case. *Social Indicators Research, 77*, 257-286.
- Young, S., Dimitratos, P., & Dana, L. (2003). International entrepreneurship research: What scope for international business theories? *Journal of International Entrepreneurship, 1*(1), 31-42.
- Zahra, S. A. (1993). A conceptual model of entrepreneurship as firm behavior: A critique and extension. *Entrepreneurship Theory and Behavior, 17*(4), 5-21.
- Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization and extension. *Academy of Management Review, 27*(2), 185-203.
- Zahra, S. A., Korri, J. S., & Yu, J. (2005). Cognition and international entrepreneurship: Implications for research in international recognition and exploitation. *International Business Review, 14*(2), 129-146.
- Zhang, Y., & Yang, J. (2006). New venture creation: Evidence from an investigation into Chinese entrepreneurship. *Journal of Small Business Enterprise Development, 13*(2), 161-173.

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