



Dispositional Optimism and Entrepreneurial Intent: An Exploratory Cross-Cultural Investigation

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Abstract. This study examined the dispositional optimism and entrepreneurial intent of undergraduate American and Canadian entrepreneurship students. It was found that American entrepreneurship students had lower levels of dispositional optimism (one's positive expectation for the future), a defining characteristic of successful entrepreneurs, when compared to Canadian entrepreneurship students. Moreover, American entrepreneurship students had less entrepreneurial intent (intent to start a new venture) compared to Canadian entrepreneurship students. These results are surprising given past research that suggests Americans are generally more optimistic than Canadians and are more likely than Canadians to pursue entrepreneurship. This paper discusses these findings and their implications.

Keywords: American entrepreneurship, Canadian entrepreneurship, dispositional optimism, entrepreneurial intent, cross-cultural analysis.

1. Introduction

Entrepreneurs have long been recognized as significant contributors to economic growth and development (Sternberg and Wennekers, 2005). As a result much research has focused on antecedents of entrepreneurial behavior and recently particularly on entrepreneurial intent (intent to start a new venture) as a key precursor of entrepreneurial behavior (Crane and Crane, 2007; Engle, Schlaegel and Delanoe, 2011).

A wide variety of contextual and individual factors have been suggested to influence entrepreneurial intent and behavior. From a national perspective culture, social norms and environmental factors like the availability of capital (Bygrave, 2002) and role models (Krueger, 2000) have been suggested to influence entrepreneurial behavior. From an individual perspective, a wide range

of personality and behavioral factors have been suggested. This study takes a cross-cultural perspective and focuses on one personality factor – dispositional optimism and its possible relationship to entrepreneurial intent. Dispositional optimism is defined as the global generalized tendency to believe that one will experience good versus bad outcomes in life. In other words, it is about one's positive expectation for the future (Scheier and Carver, 1992). Not only has dispositional optimism been found to be a key trait possessed by successful entrepreneurs it has been shown to be highly correlated to entrepreneurial intent (Baron, 2000; Crane and Crane, 2007; Crane and Meyer, 2006; Crane and Sohl, 2004). Thus, this paper explores dispositional optimism and its relationship with entrepreneurial intent and compares American and Canadian entrepreneurship students on those dimensions. Historically, the literature has suggested that Americans exhibit higher dispositional optimism and are more likely to engage in entrepreneurial behavior than Canadians (Minniti and Bygrave, 2003). This paper also investigated this notion.

2. Literature Review

This literature review is developed in four parts. First, it discusses American and Canadian culture and social norms and how they are associated with entrepreneurial behavior. In particular it examines several key differences between American and Canadian cultures and entrepreneurial behaviors. Then it examines several other environmental factors that influence entrepreneurial behavior. Thirdly, it explores individual psychology and entrepreneurial behavior. Lastly, the literature review examines dispositional optimism and entrepreneurial intent.

American and Canadian Culture, Social Norms and Entrepreneurial Behavior

Cross-national research findings demonstrate that culture and social norms are significant in determining entrepreneurial development (Minniti and Bygrave, 2003; Engle, Schlaegel and Dalanoe, 2011). The Global Entrepreneurship Monitor (GEM) cultural and social norms index encompasses a range of factors such as a nation's cultural and social values, norms, and behavior (e.g. seeking opportunity, risk taking) which shapes the entrepreneurial orientation of a country. Minniti and Bygrave (2003) have found that the United States' cultural and social norms index is almost twice as high as Canada's cultural/social norms index and is a strong differentiating factor for the U.S.A. in fostering entrepreneurship. GEM studies have also found that Canada lags behind many other countries in terms of the percentage of active entrepreneurs in the Canadian population and the percentage of the population who have a desire to start a new business in the future. For example, a GEM study found that in 37 countries, 12% of the adult populations were active entrepreneurs. But, in Canada, the percentage

was less than 9% (Riverin, 2002). The same GEM study also found that over 15% of the U.S.A. population intended to start a business in the future, but less than 12% had that intention in Canada.

Many experts have discussed factors that affect entrepreneurship and/or the intent to act entrepreneurially. Timmons and Spinelli (2004) have found that entrepreneurial development is based on three things: people, opportunity, and resources. Moreover, they suggest that these three constructs are embedded in a massive external infrastructure: society, government, culture, economy, legal issues, business environment, education, technology, and banking. In particular, they argue that an individual's personal values and aspirations (e.g. to start a business) are shaped by environmental conditions. Reynolds (1992) concurs by suggesting that entrepreneurial activity does not occur in a vacuum. Instead it is deeply embedded in a cultural and social context. Bygrave (1998) has also found that the external environment surrounding the individual can affect, positively or negatively, entrepreneurial development.

Shapiro (1981, 1982) suggests that entrepreneurs emerge from a "nutrient-rich" environment. These nutrients must include social and cultural support, information and tacit knowledge, as well as tangible resources. He argues that such "seedbeds" can establish fertile ground for potential entrepreneurs to seize and exploit opportunities. Krueger (2000) suggests that perceived social norms, perceived resource availability, and the existence of role models affect entrepreneurial intent. From a Canadian perspective, Muzyka (2002) suggests that Canadian culture does not support entrepreneurial development. It is also suggested that there are many other impediments to entrepreneurial development in Canada including: a lack of seed and venture capital, a lack of business angel support, a lack of an innovation mindset, a lack of R&D expenditures, a repressive regulatory environment in Canada, a lack of entrepreneurial training and education, a lack of role models, and a socio-cultural and individual fear of failure.

Other Environmental Factors that Influence American and Canadian Entrepreneurial Behavior

Bygrave (2002) argues that the amount of venture capital investment available in an economy is highly correlated with entrepreneurial activity, opportunity recognition, and entrepreneurial capacity. However, venture capital availability in the United States is \$206 per capita but only \$120 in Canada (Hohol, 2004). The percentage of business angels in Canada, who support entrepreneurial activities is also considered a factor that is inhibiting entrepreneurial activity. Business angels in Canada make up just slightly over 3% of the adult population while it is 5% in the United States (Riverin, 2002).

In terms of innovation, the World Economic Forum's *Global Competitiveness Report* (2004) ranked Canada 12th in innovation capacity out of 104 countries. The United States was ranked number one. In terms of

governmental public policy regarding innovation, Canada ranked 6th out of 104 nations. And, Hohol (2004) reports that Canada's R&D expenditures are running less than 2% of GDP, lagging far behind the United States. Muzyka (2002) argues that Canada's regulatory environment is inhibiting entrepreneurial activity; Hohol (2004) suggests that Canada's tax system is also an impediment to entrepreneurial development, while Mullins (2002) suggests that a lack of emphasis on entrepreneurial training and education is an inhibitor.

Muzyka (2002) also suggests that Canada lacks visible role models who can encourage entrepreneurial development in Canada. For example, he argues there is no Canadian version of Bill Gates and this may be a problem in terms of the desirability and feasibility of entrepreneurial activity. This is an important factor to consider since Timmons and Spinelli (2004) and Riverin (2002) have found that there is a strong link between entrepreneurial development and role models. Hohol (2004) also insists that the lack of entrepreneurial development in Canada can also be traced to a socio-cultural and psychological phenomenon: Canadians' aversion to failure, and this fear, she argues, is inhibiting entrepreneurial activity. Duboc (2002) echoes Hohol's sentiment by suggesting that Canadians are less tolerant of failure. He suggests that in the USA, failure is recognized as having the potential to teach important business lessons. An entrepreneur who fails is not necessarily cast out. In fact, he/she may even be held in higher regard than one who has not gone through a comparable learning experience. In Canada, however, failure is viewed as a character flaw – a flaw from which no recovery is possible (see Duboc, 2002).

Individual Psychology and Entrepreneurial Behavior

Thus, it appears that a variety of factors affect entrepreneurship and/or the intent to act entrepreneurially including a variety of environmental variables such as culture, government, culture, economy, legal issues, competition, technology, and banking. However, there is other research that focuses on the individual and the psychology of that individual with regard to entrepreneurship. For example, researchers have found that the psychological aspects of the individual, including personality traits, predispose people to entrepreneurial behavior (Katz, 1992; Bygrave and Hofer, 1991; Gartner, 1989). Furthermore, Timmons (1989) argues that there are a wide variety of characteristics and behaviors that are required by the entrepreneur. These include determination, orientation to goals, internal locus of control, tolerance for ambiguity, calculated risk-taking, learning from failure, and decisiveness. Still, the precise number and types of characteristics and behavior have never been definitively delineated or articulated. Some researchers suggest entrepreneurs possess 19 similar but slightly different attributes (Hornaday, 1982) while others suggest 12 common attributes exist (Gibb, 1990).

Finally, Grichnik, Smeja and Welpe (2010) found that joy and fear influenced entrepreneurial opportunity evaluation and entrepreneurial behavior. Interestingly joy (or happiness) is linked to optimism. In fact, Peterson (2000)

found that the research is uniform in showing that optimism is connected to desirable outcomes such as happiness, perseverance, achievement, and health. In other words, optimistic individuals tend to be happier than pessimistic people. And, at the same time, pessimistic people tend to be more fearful of the future and thus such a mindset would be an impediment to entrepreneurship. Moreover, Hmieleski (2012) has reported that dispositional optimism is positively correlated with new venture performance in stable environments.

Dispositional Optimism and Entrepreneurial Intent

There is a growing stream of research involving the psychology of entrepreneurship that suggests there is one defining characteristic of entrepreneurs; dispositional optimism. Not only has dispositional optimism has been found to be a key trait possessed by successful entrepreneurs it has been shown to be highly correlated to entrepreneurial intent (Baron, 2000; Crane and Crane, 2007; Crane and Meyer, 2006; Crane and Sohl, 2004). Dispositional optimism is defined as the global generalized tendency to believe that one will experience good versus bad outcomes in life. In other words, it is about one's positive expectation for the future (Scheier and Carver, 1992).

Scheier and Carver argue that virtually all human activity can be viewed in goal terms and an individual's behavior entails the identification and adoption of goals and the regulation of action with regard to the pursuit of such goals. They refer to this approach as a self-regulatory model. For example, optimism enters into self-regulation when people ask themselves about impediments to achieving goals they have adopted. In the face of difficulties, do people believe that goals can be achieved? If so, they are considered optimistic; if not, they are considered pessimistic. Optimism leads to continued efforts to attain the goal, whereas pessimism leads to giving up. Entrepreneurship by its nature involves uncertainty, barriers, setbacks and failures that the individual must contend with along the entrepreneurial journey. It is dispositional optimism, we argue, that is a valuable asset in such situations. Moreover, because entrepreneurial failure is the norm, it takes a dispositionally optimistic person to even consider embarking on an entrepreneurial career.

3. Methodology

We administered a questionnaire to undergraduate entrepreneurship students attending two large urban universities, one in the American Northeast and one in Atlantic Canada. The U.S.A. sample was drawn from Northeastern University, a large private urban school in Boston, MA. The sample consisted of undergraduate entrepreneurship students in the College of Business. The Canadian sample was drawn from Dalhousie University, a large public urban school in Halifax, Nova Scotia. The schools are approximately 1000 miles apart but both located in the

Northeast corridor. The sample consisted of undergraduate entrepreneurship students in the School of Business. The two student groups had very similar backgrounds: they were undergraduate entrepreneurship students; were aged between 20-24; and the gender composition of the sample was similar (overall, 60 percent of the sample were male respondents and 40 percent were female respondents).

The questionnaire consisted of the LOT-R test, the most widely used and the most direct measure of dispositional optimism (Chang, 2001). It has been utilized to effectively measure dispositional optimism in numerous settings including the health care field as well as other work-related settings. For example, using LOT-R instruments, researchers have determined that dispositional optimism can be measured and has been found to be related to both positive physical and psychological outcomes, including health, academic, athletic, and work performance (Brenes et al, 2002; Stajkovic, 2006). In a quick review of its recent application, we found more than 500 studies that have used the LOT-R instrument over the past five years to measure dispositional optimism of individuals. The questionnaire also had a question with regard to entrepreneurial intent of the students (i.e. did they intend to start a new business venture in the future).

The LOT-R is a ten-item instrument (Scheier et al, 1994). The LOT-R is based on Scheier and Carver's (1992) definition of optimism and pessimism, which is utilized for the purposes of our study, and thus it is the most direct assessment of these constructs as we have defined them. While the LOT-R is often considered a unidimensional measure of dispositional optimism, Scheier et al (1994) argue that optimism and pessimism can be evaluated independently.

The LOT-R contains six items, three positively worded and three negatively worded, which contribute to the dispositional optimism score (items # 1, 3, 4, 7, 9, 10). There are also four items that are considered fillers (items # 2, 5, 6, 8). The filler items are used to disguise the purpose of the questionnaire and make no contribution to the evaluation. The LOT-R is measured on a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. Items number 3, 7 and 9 are reversed scored. The resultant score range on the test is 6-30, with higher scores indicating more dispositional optimism. In essence, the midpoint score on the LOT-R instrument is 15. Thus, scores below 15 tend to indicate an individual's tendency for pessimism while score above 15 tend indicate an individual's tendency for optimism. The LOT-R has been found to have internal consistency (Cronbach's alpha = 0.78) and excellent convergent and discriminant validity (Scheier et al, 1994).

Analysis of variance (ANOVA) was utilized as the statistical method for making a comparison between the mean values of the LOT-R score for the American sample and the Canadian sample as well as the mean value of entrepreneurial intent for both groups. In this case, ANOVA is analogous to a statistical t-test and has been found to be a robust test when making comparisons between two types of data sets (Alreck and Settle, 1985; Anderson, 1972).

4. Results/Findings

The maximum score an individual can achieve on the LOT-R is 30, indicating an extremely high level of dispositional optimism. The overall mean score for the American sample was 20.1. This indicates that the overall group was skewed toward dispositional optimism (given the midpoint score would be 15.0 out of 30). However, the overall mean score for the Canadian sample was 22.8, also skewed toward dispositional optimism, but significantly higher than the American score ($p = 0.002$). See Table 1.

We measured entrepreneurial intent using a 5-point Likert scale (1= Strongly Disagree to 5 = Strongly Agree) asking students their extent of agreement or disagreement to the statement: "In the future I intend to start a new venture." The mean entrepreneurial intent score for the American sample was 3.04 and 3.77 for the Canadian sample, the latter score being significantly higher ($p = 0.003$). We then compared the percentages of students in both groups who scored 4 or 5 on the statement (agree and strongly agree) and found that only 51.2 percent of the American sample agreed/strongly agreed with the statement but 68.5 percent of the Canadian sample agreed/strongly agreed and this score was significantly higher than the American score ($p = 0.001$). See Table 1.

Table 1: Results: American v. Canadian Students

	American N=40	Canadian N=35	Significance
Mean LOT-R Score	20.1	22.8	$p = 0.002$
Range	10-27	18-30	
Mean Entrepreneurial Intent Score	3.04	3.77	$p = 0.003$
Percentage Likely and/or Very Likely to Start a Venture	51.2%	68.5%	$p = 0.001$

5. Conclusions and Implications

First, we wish to point out some limitations of this study. Our study was exploratory in nature and the sample size was small. Moreover, we have not proved causality here between dispositional optimism and entrepreneurial intent. However, we can argue there is an association here between the constructs and this finding is consistent with past literature on this topic (see Crane and Crane, 2007). We certainly urge further research to help determine such causality. Moreover, a longitudinal investigation would add to our understanding of the possible relationship between the two constructs. In short, gathering another data point set by tracking students over time, perhaps 2 and 5 years after graduation could help determine if the dispositional optimism scores have changed as well

as the extent to which students have acted on their original intentions to start a venture.

Despite the study limitations, perhaps the more important finding in the study is that contrary to past research and current thought on entrepreneurship, Canadian students appear to be more optimistic than their American counterparts and more likely to start a new venture. From a Canadian perspective this is a positive finding and could mean a bright future for entrepreneurship in Canada. From an American perspective, the findings may call into question the pre-conceived notion that America trumps Canada and other countries when it comes to entrepreneurial mindset.

However, the data was collected in the fall of 2010 when the American economy was in the midst of a severe economic downturn and the Canadian economy was performing significantly better. Perhaps the economic environment of the students affected their dispositional optimism and affected the usual national patterns. If that is the case it would be interesting in itself by providing additional support for the influence of environment on entrepreneurial intent. On the other hand, perhaps the samples were not well matched. While both samples are composed of undergraduate entrepreneurship students, but there may be differences in their university or other experiences that may have contributed to the differences in responses. Or, it could be that the university student populations do not accurately reflect the national populations in both countries.

In any case this study raises important questions about previously accepted American-Canadian cultural differences in dispositional optimism and entrepreneurial intent and indicates a need for further research to resolve the differences in findings. In the end, however, this study does provide some insight into the notions of dispositional optimism and entrepreneurial intent and we encourage other researchers to pursue research that might help further inform us about such constructs.

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Appendix A

Survey Instrument

Please place the appropriate number, either 1, 2, 3, 4, or 5 on the line next to each statement listed below to indicate the extent you agree or disagree with the statement. Please score each of the following statements as honestly as possible.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = You are neutral about the statement
- 4 = Agree
- 5 = Strongly Agree

Remember place the number 1, 2, 3, 4 or 5 on the line next to each statement.

1. In uncertain times, I would expect the best. _____
2. It's easy for me to relax. _____
3. If something can go wrong with me, it will. _____
4. I am always optimistic about my future. _____
5. I enjoy my friends a lot. _____
6. It's important for me to keep busy. _____
7. I hardly ever expect things to go my way. _____
8. I don't get upset too easily. _____
9. I rarely count on good things happening to me. _____
10. Overall, I expect more good things to happen to me than bad. _____
11. In the future, I intend to start my own new business venture. _____

