



The Role of Gender Stereotypes in Perceptions of Entrepreneurs and Intentions to Become an Entrepreneur

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In this study we examine the role of socially constructed gender stereotypes in entrepreneurship and their influence on men and women's entrepreneurial intentions. Data on characteristics of males, females, and entrepreneurs were collected from young adults in three countries. As hypothesized, entrepreneurs were perceived to have predominantly masculine characteristics. Additional results revealed that although both men and women perceive entrepreneurs to have characteristics similar to those of males (masculine gender-role stereotype), only women also perceived entrepreneurs and females as having similar characteristics (feminine gender-role stereotype). Further, though men and women did not differ in their entrepreneurial intentions, those who perceived themselves as more similar to males (high on male gender identification) had higher entrepreneurial intentions than those who saw themselves as less similar to males (low male gender identification). No such difference was found for people who saw themselves as more or less similar to females (female gender identification). The results were consistent across the three countries. Practical implications and directions for future research are discussed.

Introduction

Gender differences in entrepreneurial activity are well documented in the literature (Gatewood, Carter, Brush, Greene, & Hart, 2003; Reynolds, Bygrave, & Autio, 2004). Though in recent years the number of women entrepreneurs has increased dramatically (De Bruin, Brush, & Welter, 2006), empirical evidence indicates that still almost twice as many men as women become entrepreneurs, and that these differences are consistent across countries (Acs, Arenius, Hay, & Minniti, 2005). However, entrepreneurship

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scholars have limited understanding of the factors and decision processes that influence men and women differently to pursue (or not) entrepreneurship and become self-employed (Verheul, 2005; Zhao, Seibert, & Hills, 2005). In this study we examine the important relationship between gender stereotypes—widely shared beliefs about characteristics attributed to men and women—and entrepreneurial intentions of men and women.

Recent discussions in the entrepreneurship literature suggest that glaring and persistent differences between men and women's entrepreneurial activity may be associated with gender characterization (Carter, Anderson, & Shaw, 2001; Greer & Greene, 2003; Marlow, 2002). More specifically, scholars argued that socially constructed and learned ideas about gender and entrepreneurship limit women's ability to accrue social, cultural, human, and financial capital and place limitations upon their ability to generate personal savings, have credit histories attractive to resource providers, or engage the interest of loan officers, angel investors, and venture capitalists (Carter & Rosa, 1998; Gatewood et al., 2003; Marlow & Patton, 2005). These factors are believed to interact to influence the kinds of ventures men and women entrepreneurs start as well as its subsequent development. For example, women entrepreneurs are more likely than men to have businesses (often in the service or retail sector) that are smaller, slower-growing, and less profitable (Carter et al.), which in turn then reinforces the stereotypical image of men and women in self-employment (Carter & Williams, 2003).

Though there is a large body of literature that looks at men and women in entrepreneurship, very few studies use the "lens of gender" as opposed to sex (Baines & Wheelock, 2000, p. 45; Bem, 1993; Marlow & Patton, 2005, p. 719). The distinction between *sex* as ascribed to biology, anatomy, hormones, and physiology, and *gender* as constructed through social, cultural, and psychological means is an important one in the social sciences (Ahl, 2006; West & Zimmerman, 1987). Where sex (male and female) is innate and refers to what people are born as, gender is what people "do" when they attribute a circumscribed meaning to male and female (Bruni, Gherardi, & Poggio, 2004a). Gender is not simply one aspect of sex, but, more fundamentally, it is something one does, and does recurrently, in interaction with others (Butler, 1990). In this sense, gender is not a stable identity or locus of agency from which various acts proceed; rather, it is an identity tenuously constituted through a "*stylized repetition of acts*" (Butler, 1988, p. 519; Butler, 1993).

More broadly, the stereotypical characteristics attributed to men and women in society influence the classification of various occupations as masculine or feminine, which tends to affect people's aspiration and inclination toward such jobs (Cejka & Eagly, 1999). For example, men, compared with women, are assumed to and tend to be more inclined to participate and excel in math and science, while women, compared with men, are more inclined toward arts and languages (Nosek, Banaji, & Greenwald, 2002). Scholars interested in the relationship between gender and career choices contend that men and women's preferences are a reflection of their knowledge about gender-related characteristics associated with the task (gender-role stereotypes) as well as their identification with masculine or feminine characteristics (gender identification).

In this study, we examine the impact of widely held gender stereotypes on differences in men and women's intentions to pursue entrepreneurship. If gender stereotypes are related to entrepreneurial intentions, it would indicate that intentions are a reflection of culturally produced and socially learned constraints imposed by such stereotypes, rather than psychological differences rooted in biology (e.g., women have lower "energy level" and less "risk-taking propensity" than men; Sexton & Bowman-Upton, 1990). In examining the relationship between gender stereotypes and entrepreneurial intentions, we respond to scholarly calls for research on entrepreneurship as a gendered process (Lewis,

2006; Marlow & Patton, 2005; Mirchandani, 1999). These researchers suggest that gender characterization processes may explain differences in men and women's entrepreneurial activity and they encourage entrepreneurship scholars to examine how socially constructed gender, rather than biological sex, influences the type and rate of entrepreneurship among men and women. We believe we are the first to explicitly propose and examine the impact of gender-role stereotypes and gender identification on entrepreneurial intentions. Our focus on social construction of gender and entrepreneurship allows us to empirically examine a theoretical explanation for the well-known paradox that although entrepreneurship is widely recognized as an attractive and worthwhile career for women (Heilman & Chen, 2003), the rate of entrepreneurship among women remains much lower than men (Reynolds et al., 2004). We test our hypotheses using data collected from young adults in the United States, India, and Turkey.

Theory and Hypotheses

Gender stereotypes consist of shared beliefs about the characteristics and attributes associated with each sex (Fiske & Taylor, 1991; Powell & Graves, 2003). Women are commonly believed to have more communal qualities (expressiveness, connectedness, relatedness, kindness, supportiveness, timidity) whereas men are associated with more agentic qualities (independence, aggressiveness, autonomy, instrumentality, courage). Stereotypical characteristics attributed to the two sexes not only describe how men and women are (*descriptive* stereotypes) but also how they should be (*prescriptive* stereotypes) (Heilman, Wallen, Fuchs, & Tamkins, 2004; Schein, 2001). Descriptive and prescriptive stereotypes are not mutually exclusive. Instead, there is a great deal of overlap between the two, with the behavior that is prescribed directly related to the attributes that positively describe each sex. Socialization during childhood and adolescence, which is facilitated by parents, schools, peers, and the mass media, encourages adherence to gender stereotypes (Miller & Budd, 1999).

Expectations and beliefs concerning the qualities that men and women bring to their work often dictate the type of jobs that are considered appropriate for them, leading to a situation in which the requisite characteristics for some jobs are defined in terms of gender, and those jobs become known as "men's work or women's work" (Heilman, 1997). The gender typing of jobs as predominantly masculine or feminine is referred to as gender-role stereotypes (Heilman, 1983) and is common in society (Miller & Budd, 1999). For example, stereotypes associated with engineering, surgery, and judiciary are predominantly masculine while those of nursing and servicing tend to be largely feminine (Heilman, 1983). In the organizational literature, upper management is believed to be a "manly business" while secretarial jobs are seen as "woman's work" (Heilman, 2001). These stereotypical representations and valuations of what is "men's work and women's work" reflect and promote sex segregation in employment (Cejka & Eagly, 1999; Marlow & Carter, 2004). Thus, occupations dominated by members of either sex are seen as predominantly masculine or feminine and success in these occupations is believed to require correspondingly stereotypical characteristics (Heilman, 1997). More often than not, the jobs that carry with them power, prestige, and authority in a society are stereotyped as masculine (Marlow & Carter; Mirchandani, 1999).

In general, characteristics considered essential for the business world tend to be masculine (Heilman, 2001). For example, evidence suggests that business is generally seen as a "man's world" and thus is believed to require characteristics that are stereotypically masculine, rather than feminine (Heilman, Block, Martell, & Simon, 1989; Powell,

Butterfield, & Parent, 2002). There tends to be a general perception that the business world “is male, and not only male but lean, hungry, predatory and hostile” (Greer, 1999, p. 299), characteristics traditionally considered inconsistent with the feminine stereotype. Women are generally seen as inferior to men on qualities believed to be necessary to succeed in the business world and the talents and skills they bring to the table are valued relatively less than men (Marlow, 2002). Working women usually occupy the lower echelons (e.g., secretarial or clerical positions) of occupations in which both men and women work (van der Lippe & van Dijk, 2002; Marlow) or tend to be employed in “ghetto” occupations (e.g., retailing, child care) defined by lower pay, skill, and status than those dominated by men (Marlow), further supporting and reinforcing common stereotypes. Even when women become managers and business leaders, they are generally seen as less competent and disinterested in taking up challenges (Northouse, 2003). Not surprisingly, a number of scholars (Antal & Izraeli, 1993; Heilman) assert that gender-role stereotyping of top management and executive level jobs as masculine is an important barrier to women’s career advancement. Heilman (1983) argued that “upper level managerial positions appear to be characterized in masculine terms . . . [and] a good manager is described predominantly by masculine attributes . . . that [are] antithetical to both the stereotyped view of what women are like and the stereotyped-based norms specifying how they should behave” (p. 659). Thus, substantial evidence confirms that managerial characteristics are more similar to typically masculine than feminine characteristics (Schein, 2001).

As indicated earlier, however, there is a surprising lack of research on whether men and women in contemporary society see characteristics associated with entrepreneurship as more masculine or feminine. Although some scholars suggest that the masculine stereotype associated with business may not generalize to entrepreneurship (Baron, Markman, & Hirska, 2001), entrepreneurship has traditionally been a male-dominated field (Ahl, 2006; Bruni, Gherardi, & Poggio, 2004b). Men own a larger share of businesses, as well as overwhelmingly outnumber women in industries like high technology that get the most notice from media, public, and policy makers (Marlow, 2002). Women entrepreneurs are concentrated in low-growth and low-skilled business sectors such as retailing and service, which are pejoratively labeled as “mice,” “failure,” and “plodder” compared with high-growth “gazelle” businesses that are commonly associated with men (Lewis, 2006). Furthermore, entrepreneurship case studies are mostly about men (e.g., Bill Gates, Donald Trump, Sam Walton) and most role models in entrepreneurship tend to be men (Bird & Brush, 2002). Moreover, as societal perceptions of entrepreneurs have changed from “robber barons” to “drivers of economic growth” (Venkataraman, 1997), entrepreneurship has come to be seen as a desirable career that can help one gain prestige and success (Fiet, 2001). The greater number and visibility of male entrepreneurs as well as the perceptions of entrepreneurship as a prestigious and desirable employment role are likely to affect the gender typing of entrepreneurship.

Hypothesis 1: Entrepreneurship will be perceived to be a masculine field such that entrepreneurs will be perceived to have predominantly masculine characteristics.

A comparison of people across three decades (1976–1977, 1984–1985, and 1999) found little change in the gender-role stereotype of a good manager having predominantly masculine characteristics (Powell et al., 2002). Nevertheless, scholars have argued that the increase in the number of women in managerial positions over the last few years has led women, but not men, to see a resemblance between the characteristics of females and managers (Duehr & Bono, 2006). It is possible that shared biological sex leads women, but not men, to psychologically identify with female managers and to believe that they too

can be like them in the future. Empirical evidence confirms that as the number of women in management positions increases, women see a stronger relationship between characteristics of females and characteristics of managers (Schein & Mueller, 1992). Thus, the increase in women managers may lead women, but not men, to believe that managers possess feminine as well as masculine characteristics (Duehr & Bono; Powell et al.). Therefore, although stereotypes held by women about managerial and feminine characteristics may be slowly changing, men continue to see little similarity between manager and female characteristics (Schein, 2001).

We believe that the same phenomena may also be true for entrepreneurship. Because entrepreneurship is a male-dominated occupation, both men and women are exposed to a large number of male entrepreneurs, leading them to perceive a similarity between masculine and entrepreneurial characteristics. At the same time, exposure to women entrepreneurs may lead women to also perceive a match between entrepreneurship and feminine characteristics (Fagenson & Marcus, 1991). Women's psychological identification with the entrepreneurial potential of women entrepreneurs, coupled with the success of women entrepreneurs like Debbie Fields and Mary Kay Ash, who publicly embraced traditionally feminine virtues like caring for their business and building relationships with others, may influence women to perceive closer similarity between feminine and entrepreneurial characteristics as compared with men. On the other hand, men tend to hold stronger views on gender-role stereotypes (Miller & Budd, 1999), and the relatively small number of women entrepreneurs in high-growth businesses ("entrepreneurial high flyers" in the words of Marlow, 2002) may not be enough to change their views on the relationship between entrepreneurial and feminine characteristics. Thus, though both men and women may perceive entrepreneurial characteristics as being more similar to masculine characteristics, only women may see entrepreneurs and females as also having similar characteristics. We hypothesize:

Hypothesis 2: Men and women will differ in F-E congruence (the relationship between female and entrepreneurial characteristics) such that women will have a stronger F-E congruence compared with men, and there will be no difference in M-E congruence (the relationship of male and entrepreneurial characteristics) between men and women.

Considerable evidence indicates that individuals are attracted to tasks and jobs that are perceived as requiring characteristics similar to their own (Markman & Baron, 2003). Applying this reasoning to career choices, Heilman (1983) argued that individuals aspire to jobs that are perceived as typed in favor of their sex (i.e., biological sex), while avoiding jobs considered inappropriate for their own sex. Thus, occupational preferences are influenced by the perceived fit between one's sex and the stereotypes associated with a particular job. Empirical evidence suggests that when respondents are aware of task-related stereotypes, their biological sex is the greatest predictor of their occupational preferences (Miller & Budd, 1999).

Heilman (1983) argued that when people perceive a lack of fit between themselves and the stereotypes associated with a particular task, they negatively evaluate their ability to engage in activities associated with that task and also perceive negative evaluations by others whose support they may need to succeed in that task. These negative evaluations tend to reduce the likelihood of pursuing such tasks. Entrepreneurship researchers have found that women, compared with men, not only believe they are less capable of becoming an entrepreneur (Scherer, Brodzinski, & Weibe, 1990), but also perceive their environment to be more difficult and less suitable for entrepreneurial activity (Zhao et al.,

2005). Thus, we expect women to have lower intentions to become an entrepreneur as compared with men.

Somewhat surprisingly, however, relatively few empirical studies have directly compared entrepreneurial intentions of men and women. In general, although some studies found no differences between men and women (e.g., Kristiansen & Indarti, 2004), most studies find men have higher entrepreneurial intentions than women (Crant, 1996; Wilson, Marlino, & Kickul, 2004; Zhao et al., 2005). In our study we expect that when asked about their entrepreneurial intentions, the differences in entrepreneurial intentions between men and women found in most other studies will be replicated.

Hypothesis 3: Men will have higher entrepreneurial intentions than women.

Whereas the previous hypothesis proposed a relationship between biological sex and entrepreneurial intentions, we now examine how gender identification is related to intentions to engage in entrepreneurship. Gender identification is the extent to which individuals identify with characteristics attributed to males or females (Schmader, 2002). Because gender is “done” rather than something people “have” (Bruni et al., 2004a; Butler, 1988), men and women vary in the extent to which they identify with masculine or feminine characteristics, i.e., people may see themselves as more or less masculine or feminine¹ (West & Zimmerman, 1987) and this identification influences their attitudes toward stereotyped tasks (Nosek et al., 2002). For example, if entrepreneurship is associated with masculine characteristics, then people who see themselves as having more masculine characteristics are likely to have higher entrepreneurial intentions compared with people who see themselves as having less masculine characteristics. In other words, people who strongly identify with masculine characteristics (high self-masculine congruence) are likely to have higher entrepreneurial intentions compared with those who do not (low self-masculine characteristics congruence).

However, since entrepreneurship is generally not associated with feminine characteristics (Ahl, 2006; Baron et al., 2001), we do not expect identification with feminine characteristics to influence entrepreneurial intentions. In other words, there is no reason to believe that people who strongly identify with feminine characteristics (high self-feminine congruence) will differ in their entrepreneurship intentions from people who do not (low self-feminine congruence).

Hypothesis 4: Self-masculine (S-M) congruence (i.e., the extent to which individuals see themselves as possessing masculine characteristics) will be related positively to entrepreneurial intentions, whereas self-feminine (S-F) congruence (i.e., the extent to which individuals see themselves as possessing feminine characteristics) will not be related to entrepreneurial intentions.

Method

Procedure and Participants

Our sample was derived from three countries. We sought participants who are familiar with the business world and with the concept of entrepreneurship (Begley, Tan, & Schoch,

1. It is important to remember that perceiving one's self as less feminine does not make a woman “unfemale” just as perceiving one's self as less masculine does not make a man “unmale” but it does increase the “risk of gender assessment” (West & Zimmerman, 1987). While it is individuals who do gender, they do so in relation to the cultural archetype of masculinity and femininity (Butler, 1990).

2005). In addition, our study requires respondents who have not yet decided on a corporate career and are likely to be interested in starting their own business in the future (Mueller & Thomas, 2000). Last, we also wanted to control for important variables such as education, literacy, and experience across countries. Thus, we collected data from students in business classes in three campuses, one each in the United States, India, and Turkey, which helped increase the generalizability of our results beyond the context of one university in one country.

Two waves of data collection were conducted 4–6 weeks apart with 385 respondents at time 1, 355 respondents at time 2, and 277 usable matched responses. Due to the nature of our hypotheses (some hypotheses used data collected at one time, others used data collected at both times), the number of subjects varied for each hypothesis. The time 1 survey asked respondents to complete the Schein Descriptive Index (SDI) for one's self (what you think you are like) followed by another SDI for entrepreneurs (what you think entrepreneurs are like). For time 2, we randomly assigned subjects to complete the SDI for either males (162 respondents) or females (185 respondents); thus participants told us what they think either males or females are like. Following this, participants also completed Erikson's entrepreneurial intentions measure at time 2. Three hundred and forty-five students provided usable data at time 2: 65 men and 58 women from the U.S. campus, 64 men and 2 women from the Indian campus, and 95 men and 61 women from the Turkish campus. Respondents' age ranged from 18 to 41 years, with a median of 22 years. Work experience ranged from 0 to 81 months, with a median of 3 months.

Translation

In the United States and India, where the language of business education is English, the survey was administered in English. In the case of Turkey, the survey instrument was first translated into Turkish independently by two bilingual Turkish graduate students and then both back-translated each other's translation into English. The discrepancies were resolved by a bilingual Turkish business professor, who is also a coauthor on this paper, in consultation with both the graduate students and the other coauthors on this paper.

Measures

The Schein's (1973, 1975, 2001) 92-item descriptive index was used to measure characteristics associated with self, with entrepreneurs, and with males or females.² We created four forms of the questionnaire so that each form included the same 92-item descriptive terms and similar instructions. The survey completed at time 1 included one SDI that asked respondents to describe themselves followed by another SDI to describe entrepreneurs. At time 2, respondents completed the SDI by describing either females or males. Thus, each subject completed a self-description, an entrepreneurial description, and either a males or females description (98 men and 61 women completed "males" and 121 men and 57 women completed "females").

The instructions on the questionnaires were as follows:

2. The Schein Descriptive Index (SDI) is a list of 92 descriptive items (e.g., single-word adjectives like "submissive," "industrious," and "hasty" as well as phrases like "high need for power" and "strong need for social acceptance") that has been used extensively in the gender stereotype literature both nationally (e.g., Brenner, Tomkiewicz, & Schein, 1989; Duehr & Bono, 2006; Schein, 1973) and internationally (e.g., Schein, 2001).

Table 1

Description of Congruence Concepts

Concept	Congruence	Description	Measure
Gender-role stereotype	M-E congruence	Similarity between characteristics attributed to males and entrepreneurs	Correlation between the 92-item profile of males and entrepreneurs
	F-E congruence	Similarity between characteristics attributed to females and entrepreneurs	Correlation between the 92-item profile of females and entrepreneurs
Gender identification	S-M congruence	Identification of self with males	Correlation of 92-item individual self-profile with their male profile
	S-F congruence	Identification of self with females	Correlation of 92-item individual self-profile with their female profile

M-E, male-entrepreneur; F-E, female-entrepreneur; S-M, self-male; S-F, self-female.

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 (you, entrepreneurs, females or males) are like. Please rate each word or phrase in terms of how characteristic it is of (you, entrepreneurs, females or males).

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

Each respondent’s ratings of self, males or females, and entrepreneurs were used to create measures of congruence using a methodology suggested by Chatman (1991) and O’Reilly, Chatman, and Caldwell (1991). Table 1 presents the four types of congruence examined in this study. As shown in the table, M-E and F-E congruence are measures of gender-role stereotypes that measure the similarity of an individual’s perceptions of entrepreneurs with males or females. S-M and S-F congruence are measures of gender identification and refer to the similarity of a person’s perception of him (or her) self with perceptions of males (S-M congruence) or females (S-F congruence).

Entrepreneurial intentions was measured using a 10-item scale (alpha = .82) developed by Erikson (1998). Items were measured on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Sample items include (1) I am highly likely to pursue a career as a self-employed person, and (2) If I was to choose between running my own business venture and being employed by someone within the next 3 years, I would prefer to be self-employed. This conceptualization of entrepreneurship as self-employment is generally consistent with extant entrepreneurship literature (Douglas & Shepherd, 2002; Kolvereid & Isaksen, 2006).

Respondents also indicated their age, grade point average, work experience, and whether they or any of their family members have ever owned a business; these variables were considered important because prior research (e.g., Carter, Gartner, Shaver, & Gatewood, 2003) found that having a family member who owns a business was related to wanting to be an entrepreneur. These were used as control variables for the analyses investigating entrepreneurial intentions only.

Table 2

Means, Standard Deviations (SD), and Correlations

Variables	N	Mean	SD	1	2	3	4	5	6	7
1. Age	298	22.70	2.60	—						
2. Sex	345	1.35	.48	-.23**	—					
3. S-M congruence	134	.15	.22	.01	-.26**	—				
4. S-F congruence	143	.22	.23	-.19*	.53**	-.15	—			
5. M-E congruence	128	.30	.20	-.22*	-.11	-.04	C	—		
6. F-E congruence	142	.06	.22	-.18	.42**	-.15	.63**	C	—	
7. Entrepreneurial intentions	345	2.31	1.40	-.06	-.08	.24**	-.10	.07	.04	—

* $p < .05$. ** $p < .01$

Note: Sex: 1 = men, 2 = women; work experience reported in months.

S-M, self-male; S-F, self-female; M-E, male-entrepreneur; F-E, female-entrepreneur.

C = cannot be calculated due to research design.

Results

Table 2 shows the correlations among the demographic variables, the congruence measures, and entrepreneurial intentions. Examinations of the correlations indicate that entrepreneurial intentions are not related to the demographic variables of age and sex. As might be expected, respondent sex is related to self-male and self-female congruence such that men have greater self-male congruence and women have greater self-female congruence.

Because our data were collected in three different countries, we investigated whether results were similar or dissimilar across the three countries in our sample.³ In general, the results revealed no significant differences in the pattern of relationships across the three countries. Nonetheless, to provide details of our results, in Table 3 we present results from our hypothesis testing for each country and for the complete sample.

To examine the extent to which entrepreneurs are seen as masculine or feminine (hypothesis 1), we followed the analytic procedures used by Schein and her colleagues (Brenner et al., 1989; Schein, 1973; Schein et al., 1996). Specifically, each of the 92 descriptive items was considered as a class and within each class the mean ratings for males, females, and entrepreneurs were calculated. We then calculated the correlations of the mean ratings for the typical entrepreneur with the mean ratings of the typical male and female. As shown in Table 3, the correlation between male and entrepreneurial characteristics was relatively high in each country whereas the correlation between female and entrepreneurial characteristics was low in each country. More specifically, for the data aggregated across countries, there was a large and significant correlation between the ratings of males and entrepreneurs ($r = .71, p < .01, n = 92$ items) whereas there was a near zero, nonsignificant correlation between the ratings of females and entrepreneurs

3. Additional information about country-level analyses can be obtained from the first author. Because our Indian sample was predominantly men, we conducted all analyses with and without the Indian sample. We obtained similar results in both conditions. Finally, although we present individual country results in Table 3 we describe only aggregate results in our paper.

	Men	Women	Men	Women	Men	Women	Men	Women
Entrepreneurial intentions	2.93	2.87	2.98	3.90	3.10	2.87	3.01	2.88
	$F(1, 121) = .186$ ns		$F(1, 64) = 3.38$ ns		$F(1, 150) = 3.79$ ns		$F(1, 202) = 1.647$ ns	
	Description: Relationship between respondent sex and entrepreneurial intentions [‡]							
	S-M congruence	S-F congruence	S-M congruence	S-F congruence	S-M congruence	S-F congruence	S-M congruence	S-F congruence
Entrepreneurial intentions	.14	-.23	.09	.04	.33**	-.02	.24**	-.10
	Description: Correlation between S-M congruence, S-F congruence and entrepreneurial intentions							

** $p < .01$.
† Cannot be calculated.
‡ Individual country tests involve only the predictor variable (respondent sex) and the dependent variable (entrepreneurial intentions). Overall sample test involves all the covariates.
ns, not significant.

($r = .09$, not significant [ns], $n = 92$ items). These results support our first hypothesis and indicate that entrepreneurs are perceived to have predominantly masculine characteristics.

Hypothesis 2 proposed that the perception of similarity between females and entrepreneurs (F-E congruence) will be stronger among women than men and that there will be no difference between men and women regarding their perception of similarity between males and entrepreneurs (M-E congruence). To test hypothesis 2 we conducted an analysis of variance using respondent sex as the class variable and female-entrepreneur and male-entrepreneur (F-E and M-E, respectively) congruence as the dependent variables. As shown in Table 2, the analysis of variance using F-E congruence as the dependent variable was significant ($F(1, 134) = 28.28$, $p < .01$, $\eta^2 = .17$). More specifically, the mean correlation between female characteristics and entrepreneurial characteristics (F-E congruence) was .00 for men and .19 for women, indicating that women see a significantly stronger relationship between female and entrepreneur characteristics than men. In contrast, results revealed that both men and women see a similar and moderately strong relationship between male and entrepreneur characteristics (i.e., M-E congruence) ($F(1, 123) = 1.47$, ns, $\eta^2 = .004$), men respondents mean = .32 and for women respondents mean = .28. To summarize, women, compared with men, perceived a stronger relationship between the characteristics of females and entrepreneurs; however, both men and women shared a strong stereotype of males and entrepreneurs. In addition, it is important to note that even for women the perceived relationship between males and entrepreneurs (M-E congruence) was stronger than the perceived relationship between females and entrepreneurs (F-E congruence).

To test hypotheses 3, which proposed that men will have higher entrepreneurial intentions than women, we conducted an analysis of covariance testing the effect of sex on the entrepreneurial intentions, while controlling for work experience, age, grade point average, family business (yes or no), and whether the person owned a business in the past (yes or no). Entrepreneurial intentions were not related to respondents' work experience but were, not surprisingly, related to whether a member of their immediate family (parents or siblings) owned a business and whether the participant had ever owned their own business. Somewhat surprisingly, and in contrast to studies that found women to have lower entrepreneurial intentions than men (e.g., Crant, 1996; Wilson et al., 2004; Zhao et al., 2005), results indicated no significant difference between men and women respondents on entrepreneurial intentions ($F(1, 202) = 1.647$, ns).⁴

We theorized that the lack of a sex effect on entrepreneurial intentions may be because women saw entrepreneurs as possessing feminine characteristics (as indicated by the significant F-E correlation for females) and thus an entrepreneurial career would be compatible for those women. Therefore, we conducted an additional *post hoc* analysis controlling for F-E congruence. We expected that when controlling for F-E congruence we would find that men had greater entrepreneurial intentions than women. Results from an analysis of covariance indicated that when we controlled for F-E congruence, men had higher entrepreneurial intentions than women ($t = -3.03$, $p < .01$, $\eta^2 = .064$; adjusted means [controlling for F-E congruence] for men = 3.07 and women = 2.77).

Hypothesis 4 proposed that individuals who see themselves as more masculine will have higher entrepreneurial intentions, while similarity to feminine characteristics will not be related to entrepreneurial intentions. We tested this hypothesis by examining the correlation between entrepreneurial intentions and S-M and S-F congruence. As shown in

4. It is useful to note here that some other scholars (e.g., Kristiansen & Indarti, 2004) also found no differences in entrepreneurial intentions of men and women business students.

Table 3, the correlation between self-male (S-M) congruence and entrepreneurial intentions is moderate and significant ($r = .24$, $p < .01$, $n = 132$) whereas the correlation between self-female (S-F) congruence and entrepreneurial intentions is not significant and near zero ($r = -.10$, ns, $n = 143$). Thus, individuals who perceive themselves as having more masculine characteristics were more likely to have higher entrepreneurial intentions, whereas similarity to feminine characteristics was not related to entrepreneurial intentions. We found consistent results when we controlled for respondent sex and whether respondent's family member has/had a business. In summary, such results indicate that, in support of hypothesis 4, gender identification with males (S-M congruence) is related to entrepreneurial intentions but that with females (S-F congruence) is not related to entrepreneurial intentions.

Discussion

Despite the allure of entrepreneurship for women, the rate of becoming an entrepreneur is far higher among men than among women (Acs et al., 2005). The persistent and consistent difference in men and women's entrepreneurial activity across the world makes it important to understand why fewer women, compared with men, choose to become entrepreneurs. In this study, we examined the gendered nature of entrepreneurship and its relationship with entrepreneurial intentions. We found that entrepreneurship is typically seen as a masculine field; both men and women see entrepreneurship as a male-typed occupation (male gender-role stereotype). Our results also reveal that women, but not men, see a significant relationship between entrepreneurial and feminine characteristics. Further, we also found that it is not men *per se*, but people who see themselves as more similar to males (male gender identification) who have higher entrepreneurial intentions. Finally, we observed that the hypothesized relationships between gender stereotypes and entrepreneurial intentions were consistent across the three countries.

The study reported here makes important contributions to the literature. First, we contribute to recent discussion in the literature regarding entrepreneurship as a gendered profession (Lewis, 2006; Marlow & Patton, 2005) by examining gender-role stereotypes about entrepreneurship and gender identification among young people. Although gender-role stereotypes and gender identification represent different types of information for men and women, they are both socially constructed and learned through a socialization process over time (Lippa, 2002). Although scholars have suggested that "entrepreneurship holds the promise that individuals' career success will rise or fall on their own merits"—not on the prevalent preconceptions and beliefs about gender characteristics (Heilman & Chen, 2003, p. 360), our results suggest that entrepreneurship is stereotyped as a masculine field and is unlikely to provide immunity from widely held gender stereotypes and the biases they can produce. Some entrepreneurship scholars (Carter & Williams, 2003; Marlow & Patton) suggested that differences in entrepreneurial activity between men and women may not be limited to the effects of biological sex, but may be related to socially constructed gender. Our study indicates that it is not one's sex *per se*, but one's gender identification that is related to intention to choose entrepreneurship as a career option. Thus, our study increases scholarly understanding of the increasingly important relationship between gender and entrepreneurship (Carter & Williams).

Our results confirmed research that people generally associate masculine characteristics with entrepreneurs and entrepreneurship is seen as a masculine field (Ahl, 2006; Fagenson & Marcus, 1991). Though the optimistic portrayal of entrepreneurship as an attractive career option for women dominates the recent popular discourse in

entrepreneurship (Mirchandani, 1999), our results suggest that it continues to be seen as a “manly” work in society. Notably, although both men and women respondents perceived entrepreneurs to possess characteristics and attributes more commonly ascribed to males, only women viewed entrepreneurs as also possessing characteristics and attributes they ascribed to females. Thus, women described entrepreneurs as possessing attributes similar to males and females, whereas men described entrepreneurs as possessing attributes similar only to males. These results suggest that women, compared with men, have broader views of gender-role stereotypes about entrepreneurship (Miller & Budd, 1999). It appears that the widely shared masculine construction of entrepreneurship may be a road block for women, not because they cannot identify themselves as entrepreneurs, but because men do not identify feminine characteristics with entrepreneurship. More generally, researchers in other disciplines also have found that men, compared with women, are less willing to attribute feminine characteristics to achievement-related careers (Banaji & Greenwald, 1995; Marlow, 2002). We encourage future research to examine why men, unlike women, are not able to associate both masculine and feminine characteristics with entrepreneurs in particular and other achievement-related professions in general.

We found that people who see themselves as more masculine (high male-gender identification) have higher intentions of starting a business compared with people who see themselves as less masculine (low male-gender identification). These results were consistent even when we controlled for respondent sex and whether any of the respondent’s immediate family has/had their own business. We believe that this is the first study to demonstrate a relationship between an individual’s gender identification (am I more like a male [high S-M congruence] or more like a female [high S-F congruence]?) and the intentions of starting a business, a job that our respondents perceived as a masculine-typed task. Our results indicate that it is not biological sex, but the extent to which one identifies with masculine characteristics that positively influences intentions to become an entrepreneur. Though a few other entrepreneurship scholars have also viewed gender as socially constructed (Marlow & Patton, 2005) rather than a binary variable equivalent to sex (Ahl, 2006), the role of gender in influencing entrepreneurial activity remains sorely underappreciated (Bruni et al., 2004b; Lewis, 2006; Mirchandani, 1999). If entrepreneurial intentions are influenced by gender identification, as we found, future research might explore how people who identify more with feminine characteristics (feminine gender identification) can be encouraged to engage in occupations such as entrepreneurship. Though people hold naive theories that link stereotypically masculine characteristics to entrepreneurship, many of the traits (such as relationship-oriented, nurturing, and caring) regarded by experts to be important for entrepreneurial success are stereotypically feminine (Bird & Brush, 2002). We believe there is a need for special policies and programs to encourage entrepreneurship among women by emphasizing feminine characteristics related to entrepreneurship. This can be done, at least partly, by including case studies about women entrepreneurs in school curriculum as well as highlighting the success of women entrepreneurs in press and classrooms.

Taken together, our findings suggest that social and mental processes that determine men and women’s entrepreneurial intentions may be more insidious and complex than its treatment in the extant literature. We find that women, but not men, associate both masculine and feminine characteristics with entrepreneurship. Women may be deterred from entrepreneurship not because they do not see entrepreneurship as consistent with feminine characteristics, but because resource providers (e.g., lenders, suppliers, customers) and men in their lives (their partner, husband, father, and/or sons) do not associate entrepreneurship with feminine characteristics and, consequently may not support them in starting their own business. We did not find significant differences between men and

women's entrepreneurial intentions, but found that those who associated more with masculine characteristics had higher entrepreneurial intentions compared with those who identified less with these characteristics. Our finding suggests that it is not biological differences between men and women, but how gender (masculinity and femininity) and entrepreneurship are socially constructed that influences intentions to become an entrepreneur. We believe this is an important finding as extant entrepreneurship research has generally been marred by shallow analyses that attribute differences between men and women in entrepreneurship to their biological sex. Our findings highlight the gendered nature of entrepreneurial intentions and extend the relatively recent discussion in the entrepreneurship literature on the need to study gender and entrepreneurship as socially constructed (Marlow, 2002; Mirchandani, 1999). Our theoretical framework also complements more recent research on how men and women's entrepreneurial activity (specifically, the availability of financial resources) may be influenced by gender stereotypes (Marlow & Patton, 2005).

Limitations

Although our results demonstrate that there is a relationship between gender stereotypes and entrepreneurial intentions, it is important to consider potential limitations of our study. First, our sampling approach (students from good business schools in the three countries) has the advantage and limitation of forcing homogeneity of respondents across countries. By focusing solely on business students at universities, we eliminated the need to control for critical demographic variables such as age, education, and experience (Mueller & Thomas, 2000). Also, business students around the world tend to share a common focus on "achievement" and "self-fulfillment" values propagated and reinforced in modern, neo-liberal business education (Dolan, Diez-Pinol, Fernandez-Alles, Martin-Prius, & Martinez-Fierro, 2004). However, the homogeneity due to deriving our sample from student populations in good business schools may limit the generalizability of our results to other populations in these countries.

Our study is also limited by the three countries we selected as the relationships found in our sample may not generalize to other countries, such as social-democratic countries like Norway, Sweden, Denmark, and Finland (van der Lippe & van Dijk, 2002), which score quite low on masculinity (Hofstede, 1980), very high on gender egalitarianism (House, Javidan, Hanges, & Dorfman, 2002), and have work-family policies quite different from the rest of the world (Esping-Anderson, 1999). Scholars have found that the gender egalitarianism of the Scandinavian culture and unique family friendly policies related to public childcare and financial child-support in these countries has a positive effect on women's rate of labor force participation, though a majority of them continue to work in female-dominated occupations which are primarily in the service sector as is common in many other parts of the world (van der Lippe & van Dijk). We encourage future research to examine how the seemingly different values and practices in Scandinavian countries (as well as in some other country clusters such as the Eastern European bloc) influence men and women's entrepreneurial intentions.

At time 1 we asked participants to complete the "self" SDI followed by the "entrepreneur" SDI. Since we do not calculate or use self-entrepreneur (S-E) congruence to test any of our hypotheses we do not expect the order in which respondents completed the two measures to influence our results. At time 2, we randomly assigned participants to complete either the male or female SDI so as to avoid priming participants to differences between men and women by asking them to complete both male and female SDIs.

Although we used random assignment and, thus, assumed the two groups were equivalent, it is possible (though unlikely) that these groups differed on some important characteristics that influenced our results.

Finally, aspects of both hypothesis 2 and hypothesis 4 proposed a null relationship. Although results supported our hypotheses (for both the proposed and null relationships in each hypothesis), we realize that there are various alternative explanations for a null finding (Cohen, 1990). Therefore, we urge caution in interpreting the null results associated with the two hypotheses.

Practical Implications

We believe that the evidence indicating the existence of gender stereotypes about entrepreneurs and their relationship with entrepreneurial intentions has important practical implications for entrepreneurial activity in society as well as entrepreneurship research.

Men and women who want to become entrepreneurs need support and resources from many other people (customers, suppliers, bankers, venture capitalists, etc.) to start and develop their venture (Gatewood et al., 2003). These resource providers frequently make decisions under uncertainty without access to complete information and thus may be especially vulnerable to the influence of stereotypes (Heilman, Martell, & Simon, 1988). We theorize that people are more likely to provide support and resources to individuals who fit their stereotype of an entrepreneur. However, if many of these resource providers are men, who are more likely to see entrepreneurs as possessing masculine but not feminine characteristics, women seeking resources may not fit the stereotype of an entrepreneur and thus, all else being equal, may receive fewer resources. Not surprisingly then, women are more likely than men to report that the environment for starting a business is hostile and difficult (Kolvereid, Shane, & Westhead, 1993) and empirical evidence indicates that women struggle to receive debt and venture capital financing for new ventures (Fay & Williams, 1993; Gatewood et al.). The findings of our study suggest that if conformity to gender-role stereotypes is important to secure resources, such as capital, access to potential suppliers and customers, advice, and mentorship, then women wanting to be entrepreneurs may be disadvantaged when they do not fit the prevalent stereotype.

In recent years, entrepreneurship research has been criticized for simply categorizing people based on their biological sex and using it to explain differences between men and women in the rate and type of entrepreneurial activity in society (Ahl, 2006). Though biological sex may be useful for showing differences in intentions to start a business or the size and type of new ventures started, it is limited in explaining why this is so. We encourage entrepreneurship researchers to pursue a broader research agenda that uses a “lens of gender” (Bem, 1993; Marlow & Carter, 2004, p. 5) to study how the way gender and entrepreneurship are constructed in society can influence the rate and type of entrepreneurial activity.

Conclusions

The data from our study speak to a central question in entrepreneurship: What influences differences between men and women in entrepreneurial activity? This study provides strong evidence that gender characterization, in the form gender-role stereotypes and gender identification, is related to perceptions of and intentions to become an

entrepreneur. Specifically, we found that both young men and women associate entrepreneurs with stereotypically masculine characteristics. More importantly, we found that it is not group membership based on biological sex, but identification with masculine characteristics that is positively associated with entrepreneurial intentions. Our findings indicate that men and women's entry into entrepreneurship may be enhanced or limited by their perceived similarity to masculine characteristics. Starting at a young age, children learn gender stereotypes and by the time they reach adolescence, most people have a clear understanding of attributes and qualities associated with both sexes (Miller & Budd, 1999; West & Zimmerman, 1987). These stereotypes are believed to act as powerful social forces that justify and maintain the sex segregation of occupations (Cejka & Eagly, 1999; Marlow & Carter, 2004). Our findings suggest that men and women's entrepreneurial intentions are strongly influenced by gender stereotypes in contemporary society.

The data from our study indirectly speak to views about entrepreneurship that imply that women lack certain characteristics, traits, and skills that are needed to become entrepreneurs (Hisrich & Brush, 1984). The evidence we presented suggests that even in men and women with similar education and experiences, social learning in the form of gendered stereotypes associated with entrepreneurship can adversely affect intentions. In other words, men and women seem to choose to participate in a system of self-imposed occupational segregation in entrepreneurship due to insidious and complex processes rooted in culturally produced and socially learned stereotypes. The consistency of our hypothesized relationships across three countries speaks to the robustness of gender stereotypes as an important factor in explaining differences in the rate of entrepreneurship among men and women. In recent years, the social construction of gender and entrepreneurship has begun to receive attention in the entrepreneurship literature (Bruni et al., 2004a; Marlow & Carter, 2004). We encourage entrepreneurship researchers, both men and women, to acknowledge the invisible masculinity of entrepreneurship that so profoundly influences their assumptions, variables, theoretical and measurement models, and methodologies (Ahl, 2006), and strive to address the differentiated, complex, and varied influence gender characterization has upon men and women in entrepreneurship.

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