

[Go to old article view](#)

Journal of Small Business Management

Early View

Online Version of Record published before inclusion in an issue

Original Article

About Gender Differences and the Social Environment in the Development of Entrepreneurial Intentions

[Francisco J. Santos](#), [Muhammad Azam Roomi](#), [Francisco Liñán](#)

First published:

18 August 2014 [Full publication history](#)

DOI:

10.1111/jsbm.12129 [View/save citation](#)

Cited by:

0 articles [Check for new citations](#)



Abstract

This study analyzes the interplay between gender differences and the social environment in the formation of entrepreneurial intentions. Data were obtained from two different European regions. The results show that the formation of entrepreneurial intentions is similar for men and women. At the same time, men consistently exhibit more favorable intentions than women do. Nevertheless, the perception of the social legitimation of entrepreneurship only serves to reinforce male entrepreneurial intentions, and not those of women. This holds for both regions and probably is a consequence of women feeling entrepreneurship to not be an acceptable career option for them. The implications of these results are discussed.

Enhanced Article Feedback

Introduction

The existence of a gap between men and women in entrepreneurship has long been acknowledged, and it is attracting increasing academic attention (Hughes et al. [2012](#)). Thus, the proportion of any country's adult female population participating in entrepreneurship is lower than that of men (Hindle, Klyver, and Jennings [2009](#)). However, more research is needed to fully explain the gender gap in entrepreneurial activity, at least in two respects: individual perceptions and environmental influences (Neergaard, Shaw, and Carter [2005](#)).

First, individual cognitions and self-perceptions may help explain whether (and why) women interpret the reality around them differently from the way men do (de Bruin, Brush, and Welter [2007](#)). In this sense, some authors stress the differences in world interpretation derived from the alternative-gendered perspectives (Bird and Brush [2002](#)). As a result, perceptions such as self-efficacy differ by gender (Kickul et al. [2008](#)). Women are also found to perceive fewer opportunities and to identify higher financial barriers than their male counterparts (Langowitz and Minniti [2007](#); Minniti and Nardone [2007](#)).

Second, only a small proportion of research is presently considering the socioeconomic context of female entrepreneurship and, in this sense, comparative works from different countries and regions are recommended (Ahl [2006](#)). Cultural values and beliefs play a role in shaping the institutions of a country (Verheul, van Stel, and Thurik [2006](#)). Hence, they may influence the decision to become self-employed (Mueller and Thomas [2001](#)).

This paper aims to fill these two gaps in the literature. To do so, perceptions of both males and females from two different European regions (southern Britain and southern Spain) will be analyzed. Specifically, this research will focus on attitudes, capacities, and intentions toward business start-ups. This will allow the consideration of new ideas about gender-specific perceptions of entrepreneurship (Bird and Brush [2002](#)). It will also help to explain why the level of entrepreneurial intentions of women is found to be lower than that of men (Hindle, Klyver, and Jennings [2009](#)).

To achieve these objectives, a cognitive approach has been followed based on two elements. First, Ajzen's ([1991](#)) well-known theory of planned behavior (TPB) is used to explain entrepreneurial intentions (Krueger and Carsrud [1993](#)). Second, the role of both the micro- and the macrosocial environments on perceptions and intentions of men and women is considered (Busenitz and Lau [1996](#); Etzioni [1987](#)).

Literature Review and Hypotheses

The TPB

Entrepreneurial intention has long been recognized as a key precursor of new venture creation (Bird [1988](#)). The TPB (Ajzen [1991](#)) and the entrepreneurial event theory (Shapero [1982](#)) have

received special attention (Hindle, Klyver, and Jennings 2009). The latter explains intention as a function of desirability, feasibility, and propensity to act (Shapero 1982). The TPB, in turn, was proposed to explain planned behavior in general (Ajzen 1991) and has frequently been applied to entrepreneurship (Kolvereid 1996 ; Krueger and Carsrud 1993 ; Liñán and Chen 2009). In practice, both models are considered as highly compatible (Krueger, Reilly, and Carsrud 2000) and as having substantial commonalities (Fitzsimmons and Douglas 2011).

The TPB considers entrepreneurial intentions to be directly influenced by three perceptions (Ajzen 1991 ; Kolvereid 1996 ; Krueger and Carsrud 1993 ; Krueger, Reilly, and Carsrud 2000). According to Hindle, Klyver, and Jennings (2009), entrepreneurial personal attitude (PA) is the degree of attraction toward becoming an entrepreneur (very similar to desirability), whereas entrepreneurial perceived behavioral control (PBC) refers to the ability to develop the entrepreneurial behavior (very similar to feasibility). Finally, perceived subjective norm (SN) refers to the approval—or not—of the individual's firm-creation decision by the people in his or her closer environment. This social-norm element captures the influence of the society around the individual (Ajzen 1991).

The literature has found strong empirical evidence supporting the TPB, especially in the case of the influence of PA and PBC on intentions (Armitage and Conner 2001). Nevertheless, some studies have found the direct influence of perceived SN on entrepreneurial intention to be quite weak (Autio et al. 2001 ; Krueger, Reilly, and Carsrud 2000). This has led some authors to exclude SN from the analysis (Fitzsimmons and Douglas 2011). Other authors have, instead, suggested SN to be a way to “channel” the influence of the perceived closer and social environments on personal perceptions (Ferreira et al. 2012 ; Liñán, Urbano, and Guerrero 2011), thus mediating this relationship. SN is, then, an anticipation of the expected rewards or sanctions by people in the individuals' closer environment if the behavior was performed (Meek, Pacheco, and York 2010).

Gender Differences in Entrepreneurial Intentions

As mentioned previously, women are said to present some weaknesses in the context of entrepreneurial activity in comparison with men. Some of these weaknesses are fewer financial, human, and network resources (Becker-Blease and Sohl 2007 ; Brush et al. 2002 ; Carter and Allen 1997 ; Fabowale, Orser, and Riding 1995 ; Marlow and Patton 2005 ; Smith-Hunter 2006), or less management experience (Brush et al. 2004 ; Loscocco et al. 1991). Nevertheless, once some of these variables—such as the starting capital or hours worked—are statistically controlled for, researchers have found more similarities than differences between male and female businesses (Neergaard, Shaw, and Carter 2005 ; Watson 2002).

Traits or demographic variables, such as risk-taking propensity, have been used to explain the specificities of female entrepreneurship (Masters and Meier 1988 ; Sexton and Bowman-Upton 1990). However, this approach has been criticized (Krueger, Reilly, and Carsrud 2000 ; Robinson et al. 1991). Recently, cognitive elements have been proposed to explain the gender gap in entrepreneurial activity (Arenius and Minniti 2005 ; Fernández, Liñán, and Santos 2009 ; Krueger, Reilly, and Carsrud 2000). In this sense, feminist/social feminist theory argues that research so far has been carried out following a masculine paradigm (Bird and Brush 2002).

Both at the aggregate and the individual levels of analysis, research has shown that there is a gender

gap in entrepreneurial intentions and perceptions, regardless of the level of economic development (Langowitz and Minniti **2007** ; McGee et al. **2009** ; Minniti and Nardone **2007** ; Verheul, van Stel, and Thurik **2006**). Similarly, there are gender differences in the manner in which self-beliefs and attitudes about entrepreneurship are processed and developed (Kickul et al. **2008**).

One important perception influencing entrepreneurial intentions is entrepreneurial self-efficacy (ESE). This refers to the belief that one is capable of performing an activity (Bandura **1997**). Specifically, women were found to have a lower ESE and lower entrepreneurial intentions than men have (Mueller and Dato-On **2008** ; Wilson, Kickul, and Marlino **2007**). Nevertheless, it seems the effect of self-efficacy on intentions may be stronger for women (Kickul et al. **2008**).

Likewise, some research has found that women perceive fewer opportunities, a higher fear of failure, and higher financial barriers than their male counterparts (Langowitz and Minniti **2007** ; Minniti and Nardone **2007**). Other studies, on the other hand, argue that these differences are in the contrasting way in which women and men recognize those opportunities (DeTienne and Chandler **2007**). At least part of these differences could be due to the dissimilar effect of environmental influences on the individual perceptions of men and women (Byrne and Fayolle **2010**). In this sense, a distinction between biological sex (man/woman) and socialized perspective (masculine/feminine) is advocated (Bird and Brush **2002**).

The Influence of the Social Environment

Social cognitive theory (Bandura **2001**) suggests that the social environment around individuals plays an important role in shaping their cognition and, ultimately, behavior (De Carolis and Saporito **2006**). The social status of entrepreneurship (Begley and Tan **2001**) or it being a respected career path (Busenitz, Gómez, and Spencer **2000**) will raise the individuals' interest in entrepreneurship and new venture creation (Morris and Schindehutte **2005**).

Social capital includes both strong ties (among members of a family or ethnic group) and weak ties (Woolcock and Narayan **2000**). Cognitive social capital refers to types of understandings that develop among individuals depending on a shared meaning of language, codes, and culture (Farr-Wharton and Brunetto **2007** ; Naphiet and Ghoshal **1998**). From a cognitive perspective, both types of social capital (strong and weak ties) play a different and complementary role in transmitting values and ideas that will influence perceptions and intention (De Carolis and Saporito **2006** ; Simon, Houghton, and Aquino **2000**).

As Fayolle, Basso, and Bouchard (**2010**) point out, it is important to consider the interplay between different levels of social influence in explaining the entrepreneurial orientation. The social influence on entrepreneurial attitudes and behaviors is exerted at both the macro- and micro-levels (Morris and Schindehutte **2005**).

Thus, the microsocial or closer environment derives from links with family, friends, or acquaintances (Uphoff **2000**). Participation in this closer-environment network will provide, among other things, advice, support, and legitimacy (Hindle, Klyver, and Jennings **2009**). In this sense, closer valuation (CV) refers to the way individuals perceive the entrepreneurial activity to be valued in their closer environment (family, friends, and ethnic group). This influence received from the closer environment values (CV) contributes to the generation of more favorable perceptions toward start-up (Cooper and

Dunkelberg **1987** ; Scherer, Brodzinsky, and Wiebe **1991**). Therefore, the value assigned to entrepreneurship in this closer environment (CV) is likely to promote a more positive perception of personal support if the individual decides to start a venture (SN) (Neergaard, Shaw, and Carter **2005**). At the same time, these perceived valuations may increase self-confidence in the ability to successfully start a venture (entrepreneurial PBC) and the desirability toward the entrepreneurial career (entrepreneurial PA) (Rimal and Real **2003**).

The macrosocial environment, however, is made up of the social values and culture shared by the society (Thornton, Ribeiro-Soriano, and Urbano **2011**). The value society puts on entrepreneurship will manifest itself in the form of a higher social status of entrepreneurship or a greater admiration for entrepreneurs (Begley and Tan **2001** ; Busenitz, Gómez, and Spencer **2000**). Thus, social valuation (SV) refers to the way individuals perceive the entrepreneurial activity is valued in society, as a consequence of macrosocial values and culture (Liñán, Urbano, and Guerrero **2011**). The underlying system of values pertaining to a specific group or society shapes the development of personality perceptions (Davidsson and Wiklund **1997** ; Zahra, Jennings, and Kuratko **1999**), modeling normative (SN), affective (PA) and also ability (PBC) perceptions toward the entrepreneurial activity (Thomas and Mueller **2000**). It is expected, therefore, that potential entrepreneurs will be aware of what the SV of entrepreneurship is and their intentions will be shaped accordingly. This influence comes from social legitimation and the promotion of certain positive values regarding firm creation (Busenitz and Lau **1996** ; Davidsson and Wiklund **1997** ; Etzioni **1987**).

From a gender perspective, some studies find women perceive their task environment as less suitable for entrepreneurial activity (Zhao, Siebert, and Hills **2005**). The normative support from the females' closer environment seems to be embedded in overall attitudes about entrepreneurship and gender equality. Only when the normative support is strong is the influence on the start-up rate of women positive (Baughn, Chua, and Neupert **2006**).

Similarly, it has also been pointed out that cognitive differences in entrepreneurial behaviors are explained by gender stereotypes and socially conditioned perceptions of what it means to be masculine or feminine (Bird and Brush **2002** ; Byrne and Fayolle **2010** ; Gupta et al. **2009** ; Mueller and Dato-On **2008**). In general, the masculine stereotype based on aggressiveness, competitiveness, and risk-taking behavior has been assigned to men, and it has been considered very important for entrepreneurship and the economic success of nations (Bird and Brush **2002** ; Byrne and Fayolle **2010** ; Kickul et al. **2008**).

In the case of less developed countries, research has also focused on the influence of the national or regional environment on female entrepreneurship. In these environments, traditional attitudes and values transmitted through family and social links could specifically be behind the lower entrepreneurial activity of women with respect to men (Bertaux and Crable **2007** ; Roomi and Parrot **2008** ; Wells, Pfantz, and Byrne **2003**). Conversely, in countries and regions with very low income levels and high female unemployment, it may also be true that women tend to undertake very marginal subsistence activities, thus showing apparently higher start-up rates than those of men (García-Cabrera and García-Soto **2008** ; Verheul, van Stel, and Thurik **2006**).

It may be argued, then, that the environment exerts a different influence depending on the level of economic and social development (Iakovleva, Kolvereid, and Stephan **2011** ; Liñán and Chen **2009**).

Research Model and Hypotheses

Figure 1 presents the final research model to be tested, considering the four elements of the TPB model along with the two additional social perceptions defined previously: CV and SV. As may be seen, it specifically hypothesizes that CV and SV influence entrepreneurial PA, entrepreneurial PBC, and SN (Liñán, Urbano, and Guerrero 2011).

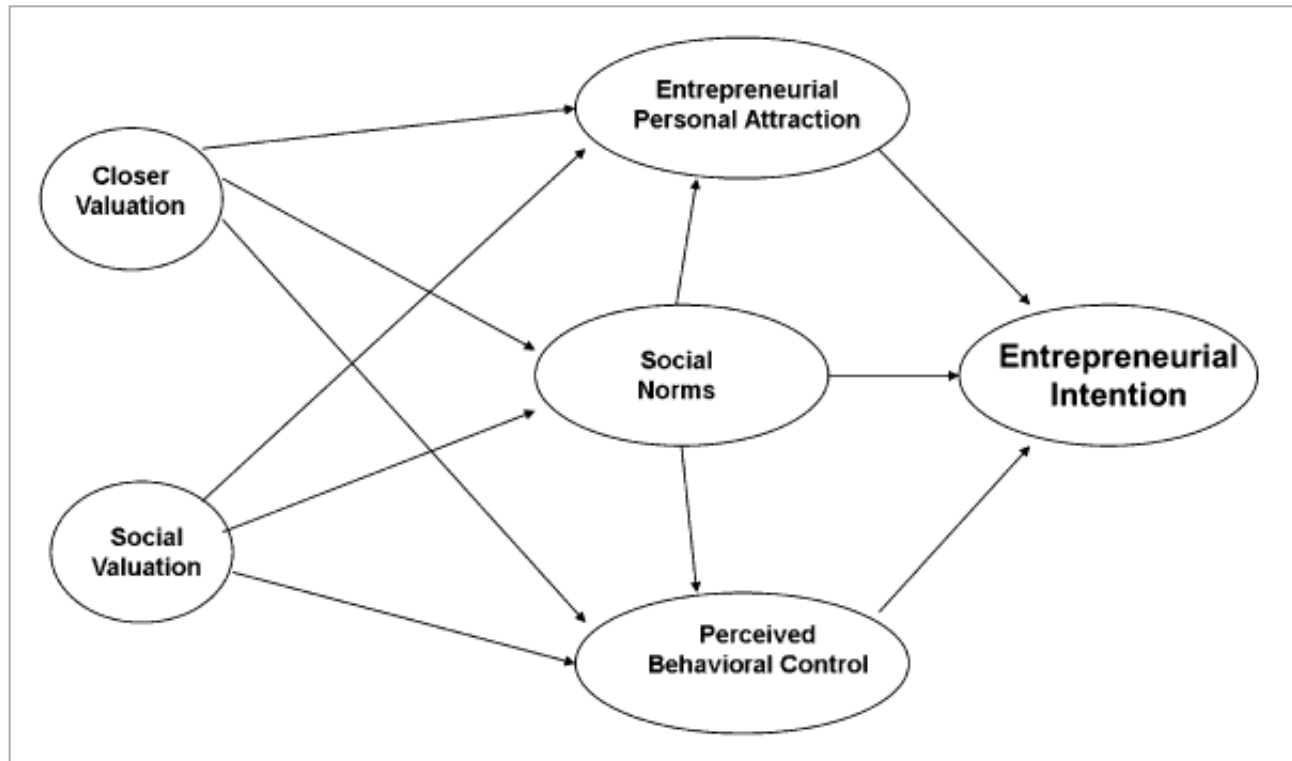


Figure 1.

[Open in figure viewer](#)

Research Model

Following the research model depicted in Figure 1, and taking into account the gender gap in entrepreneurial intentions and perceptions found by the recent entrepreneurship literature (Kickul et al. 2008 ; Langowitz and Minniti 2007 ; Minniti and Nardone 2007 ; Wilson, Kickul, and Marlino 2007), the following hypotheses are derived:

- H1: Across different regions, women exhibit, when compared with men:
- H1a: lower intentions of becoming entrepreneurs.
- H1b: lower entrepreneurial PBC.
- H1c: lower entrepreneurial PA.
- H1d: lower subjective norm (SN) of becoming entrepreneurs.
- H1e: lower closer valuation (CV) of becoming entrepreneurs.

- H1f: lower social valuation (SV) of becoming entrepreneurs.

Nevertheless, despite these expected differences, the influence of basic perceptions on intention-model elements should be similar for both genders and in different contexts (Arenius and Minniti 2005 ; Minniti and Nardone 2007). Hence, based on the theory, the following hypotheses are proposed:

- H2: The following relations hold for both genders across different regions:
- H2a: Entrepreneurial PA has a positive impact on entrepreneurial intentions.
- H2b: Entrepreneurial PBC has a positive impact on entrepreneurial intentions.
- H2c: SN has a positive impact on entrepreneurial intentions.
- H2d: SN has a positive impact on entrepreneurial PA.
- H2e: SN has a positive impact on entrepreneurial PBC.

However, the literature also points out that socio-environmental elements exert a different influence on male and female perceptions and intentions regarding entrepreneurship (Eddleston and Powell 2008 ; Gupta et al. 2009 ; Kickul et al. 2008 ; Mueller and Dato-On 2008 ; Watson and Newby 2005 ; Zhao, Siebert, and Hills 2005). This influence tends to be weaker for women (Matthews and Moser 1996 ; Verheul, Uhlaner, and Thurik 2005 ; Watson and Newby 2005). These differences in environmental influences have been found to be stronger in less developed regions or countries (Bertaux and Crable 2007 ; Roomi and Parrot 2008 ; Wells, Pfantz, and Byrne 2003). This therefore leads to the following hypotheses being proposed:

- H3: There are differences in the following relationships depending on gender (stronger for men) and on the region:
- H3a: Closer valuation has a positive influence on entrepreneurial PA.
- H3b: Closer valuation has a positive influence on entrepreneurial PBC.
- H3c: Closer valuation has a positive influence on SN.
- H3d: Social valuation has a positive influence on entrepreneurial PA.
- H3e: Social valuation has a positive influence on entrepreneurial PBC.
- H3f: Social valuation has a positive influence on SN.

Research Methodology

Data

Data come from a survey on final-year business undergraduate students of two different European regions. Five hundred sixteen questionnaires were collected: 267 British students from the University of Bedfordshire in Luton and 249 Spanish students from the University of Seville (see Table 1).

Table 1. Descriptive Characteristics of the Subsamples (%)

Description	Full Sample	Bedfordshire Subsample	Seville Subsample
-------------	-------------	------------------------	-------------------

Gender	Male	50.4	53.2	47.3
	Female	49.6	46.8	52.7
Age	18–24	67.8	57.3	75.1
	25–30	22.7	31.1	17.7
	>31	5.8	11.6	2.4
	Total (number)	516	267	249

The two regions differ in some of their economic characteristics. Bedfordshire is located near London; it is very well connected with the British capital, and its income level is one of the highest in the EU-15.¹ On the other hand, Seville is located in southern Spain; it is one of the least industrialized regions of the country, and its income level is therefore one of the lowest in the EU-15 (Table 2).

Table 2. Basic Economic Data in the Two Regions

Indicator	Bedfordshire ^a	Seville ^b
Income Per Capita 2007(GDP PPS Per Capita)	31,600	20,200
Activity Rate (2003–2006)	70.9	64.6
Unemployment Rate (2009)	5.9	25.4
Female Unemployment Rate (2009)	4.7	27.1
Male Unemployment Rate (2009)	6.9	24.1
Employment in High-Tech Sectors (2008, % of Total Employment)	8.08	2.43
Individuals Regularly Using Internet (2010, % of Individuals Who Accessed the Internet, on Average, at Least once a Week)	86.0	52.0
a Data for Bedfordshire, Hertfordshire.		
b Data for Andalusia.		
Source: Eurostat, Regional Statistics NUTS 2.		

Regarding entrepreneurship, the Eurobarometer data show that the entrepreneurial activity index in the United Kingdom is above the EU-15 average but, on the contrary, this index for Spain is below the EU-15 average (European Commission 2007). This result is consistent with a higher entrepreneurship rate and a lower proportion of business failures in the United Kingdom.

Cultural values differ considerably between both countries, with the U.K. scoring higher than Spain in

individualism and masculinity, whereas lower in uncertainty avoidance and power distance (Hofstede [2003](#)). In this sense, a more pro-entrepreneurial set of values is present in the United Kingdom (Mueller, Thomas, and Jaeger [2002](#)). Additionally, the United Kingdom also has a higher proportion of individuals with a low perception of financial difficulties for the start-up, a high risk tolerance, and a high probability of starting the business as a result of an opportunity.

Scales

The *Entrepreneurial Intention Questionnaire (EIQ)* developed by Liñán, Urbano, and Guerrero ([2011](#)) was used to test the hypotheses proposed. The questionnaire was built to avoid some of the most common problems in this kind of analyses, such as common method bias, evaluation apprehension, or acquiescence bias. Additionally, in the empirical analysis, reliability and validity analyses will be repeated to confirm the previous results and ensure the instrument's appropriateness.

The questionnaire uses Likert-type scales to measure each construct (response range is 1 to 7, with 4 being the central value). Thus, 20 items in the first part of the questionnaire measure the four core constructs of the TPB (entrepreneurial intention, entrepreneurial PA, entrepreneurial PBC, and entrepreneurial SN). A sample item for entrepreneurial intention is: "I am determined to create a business venture in the future." On the other hand, the EIQ also provides measures of CV and SV. The following are example items: "My friends value entrepreneurial activity above other activities and careers" (for CV) and "The culture in my country is highly favorable toward entrepreneurial activity" for (SV). In the present study, all six constructs have been measured through reflective indicators.

Data Analysis

Given the relationships between different perceptions and the entrepreneurial intention, structural equation modeling has been chosen for the analysis. In particular, Partial Least Squares (PLS) is applied, and PLS Graph V. 3.00 Build 1126 software is used for the data analysis (Chin and Frye [2003](#)). This multivariate statistical technique is suitable when exploratory studies are carried out and relatively small samples are used (Sánchez-Franco and Roldán [2005](#)).

To test [H1a](#) to [H1f](#), a PLS model was built using data from the full sample (Bedfordshire and Seville). Then, with the resulting constructs (entrepreneurial intention, entrepreneurial PBC, entrepreneurial PA, SN, CV, and SV) we performed an analysis of variance (ANOVA) test to check for the existence of possible gender differences in the constructs of the two subsamples.

To test [H2a](#) to [H2e](#), two PLS models for the full sample were built (Bedfordshire and Seville together): one for men and the other for women.

Finally, regarding [H3a](#) to [H3f](#), a dichotomous control variable (BED) was included in the two previous PLS models (for men and women) to reflect the influence of the regional environment (value 1 for the Bedfordshire subsample and value 0 for the Seville subsample). Then, a multigroup analysis was performed to look for statistically significant differences in path coefficients (Chin [1998](#)).

Results

The analysis of the measurement model for the full sample found low loadings for a small number of items. They were removed, and the model was run again. Scores regarding item reliability, construct reliability and convergent, and discriminant validity were then satisfactory (see Tables 3 and 4).

Table 3. Reliability and Convergent Validity Analysis for the Full Sample (Bedfordshire and Seville $N = 516$)

Construct	Items	Loadings	Composite Reliability	Average Variance Extracted (AVE)
Entrepreneurial Intention	A04	0.7591	0.914	0.680
	A06	0.7835		
	A13	0.8864		
	A17	0.8713		
	A19-rev-	0.8156		
Entrepreneurial PA	A10	0.8443	0.880	0.709
	A15	0.8680		
	A18	0.8129		
Social Norms	A03	0.7989	0.859	0.672
	A08	0.7758		
	A11	0.8800		
Entrepreneurial PBC	A01	0.7961	0.847	0.582
	A07	0.7756		
	A14	0.8112		
	A20	0.6579		
Closer Valuation	C1	0.7704	0.846	0.647
	C4	0.8055		
	C7	0.8355		
Social Valuation	C2	0.8676	0.856	0.748
	C6	0.8622		

Table 4. Convergent and Discriminant Validity of Constructs for the Full Sample (Bedfordshire and Seville, $N = 516$)

	Entrep. Intention	Entrep. PA	Social Norms	Entrep. PBC	Closer Valuation	Social Valuation
Entrep. Intention	0.824					
Entrep. PA	0.790	0.842				
Social Norms	0.354	0.398	0.819			
Entrep. PBC	0.669	0.603	0.367	0.762		
Closer Valuations	0.427	0.381	0.266	0.419	0.804	
Social Valuations	0.308	0.283	0.128	0.372	0.469	0.864

Diagonal elements (bold) are the square root of the average variance extracted (AVE) between the constructs and their measures. Off-diagonal elements are correlations between constructs. For discriminant validity, diagonal elements should be larger than off-diagonal elements in the same row and column.

When we repeated the analysis for each region individually, the results were similar. Entrepreneurial intention levels are notably higher in Bedfordshire (mean value of 4.95) than in Seville (3.94), as was expected given the economic and cultural differences between both regions. This is in accordance with respondents in Bedfordshire showing more positive PA (5.41 versus 4.85) and PBC (4.53 versus 3.73) than those in Seville. Then, ANOVA analyses were performed in each region to compare male and female scores for the six constructs.

As seen in Table 5, men always had higher entrepreneurial intentions and perceptions in each region individually considered (the mean is higher for men than for women). Regarding entrepreneurial intentions, the share of respondents stating a high intention (5 or higher in the 1–7 scale) is 53.6 percent for males (65.6 percent in Bedfordshire and 39.6 percent in Seville) and 30 percent for women (41.2 percent in Bedfordshire and 19.5 percent in Seville). However, the ANOVA test showed that these gender differences were only significant for three of the four central elements of Ajzen's model: entrepreneurial intention, entrepreneurial PA, and entrepreneurial PBC. Therefore, *H1a*, *H1b*, and *H1c* are supported, but *H1d*, *H1e*, and *H1f* are not.

Table 5. ANOVA to Test Gender Differences in Entrepreneurial Intentions and Perceptions in Bedfordshire and Seville Subsamples

	Gender	<i>N</i>	<i>M</i>	<i>SD</i>		<i>SSq</i>	<i>d.f.</i>	<i>MSq</i>	<i>F</i>	<i>p</i>
--	--------	----------	----------	-----------	--	------------	-------------	------------	----------	----------

Entrep. Inten.	Bed. Men	128	5.2938	1.27309	Inter	31.569	1	31.56	15973	.000
	Bed. Women	114	4.5702	1.54146	Intra	474.334	240	1.976		
					Total	505.903	241			
	Sev. Men	111	4.2559	1.48009	Inter	20.931	1	20.93	10.69	.001
	Sev. Women	123	3.6569	1.32183	Intra	454.135	232	1.957		
					Total	475.066	233			
H _{1a} Supported										
Entrep. PA	Bed. Men	135	5.6247	1.24883	Inter	13.350	1	13.35	8.160	.005
	Bed. Women	119	5.1653	1.31260	Intra	412.290	252	1.636		
					Total	425.640	253			
	Sev. Men	112	5.1429	1.28806	Inter	17.896	1	17.89		
	Sev. Women	124	4.5914	1.34339	Intra	408.123	234	1.744		
					Total	426.019	235		10.26	.002
H _{1b} Supported										
Entrep. PBC	Bed. Men	134	4.6791	1.10476	Inter	5.920	1	5.920	4.696	.031
	Bed. Women	121	4.3740	1.14251	Intra	318.967	253	1.261		
					Total	324.887	254			
	Sev. Men	111	3.9797	1.03415	Inter	13.490	1	13.49	13.20	.000
	Sev. Women	122	3.4980	0.98883	Intra	235.954	231	1.021		
					Total	249.444	232			
H _{1c} Supported										
SN	Bed. Men	132	5.0000	1.20079	Inter	4.508	1	4.508	3.140	.078
	Bed. Women	121	4.7328	1.19538	Intra	360.360	251	1.436		
					Total	364.868	252			
	Sev. Men	111	5.2643	1.32659	Inter	0.023	1	0.023	0.013	.909
	Sev. Women	122	5.2842	1.33035	Intra	407.731	231	1.765		

					Total	407.754	232			
									H _{1d} Not supported	
CV	Bed. Men	141	4.5201	1.22952	Inter	3.397	1	3.397	2.550	.112
	Bed. Women	123	4.2927	1.06148	Intra	349.101	262	1.332		
					Total	352.498	263			
	Sev. Men	112	4.0298	1.08549	Inter	0.411	1	0.411	0.319	.573
	Sev. Women	114	3.9462	1.17593	Intra	300.286	234	1.286		
					Total	301.286	235			
									H _{1e} Not supported	
SV	Bed. Men	142	4.7500	1.25159	Inter	0.007	1	0.007	0.005	.944
	Bed. Women	143	4.7398	1.08142	Intra	363.550	263	1.382		
					Total	363.557	264			
	Sev. Men	110	3.7227	1.22397	Inter	0.000	1	0.000	0.000	.995
	Sev. Women	124	3.7218	1.29775	Intra	370.444	232	1.597		
					Total	370.444	233			
									H _{1f} Not Supported	

Second, the models were tested separately on the subsample for all men (Bedfordshire and Seville) and the subsample for all women (Bedfordshire and Seville). Results showed that the relationships were significant for both men and women in the two regions. The model explained 66.1 percent (for men) and 67.6 percent (for women) of the variance in entrepreneurial intentions (see Figure 2). Only the relationship between SN and entrepreneurial intentions was not significant, in accordance with results by other researchers (Autio et al. 2001 ; Krueger, Reilly, and Carsrud 2000 ; Liñán and Chen 2009). Therefore, *H2a* , *H2b* , *H2d* , and *H2e* are supported whereas *H2c* is not.

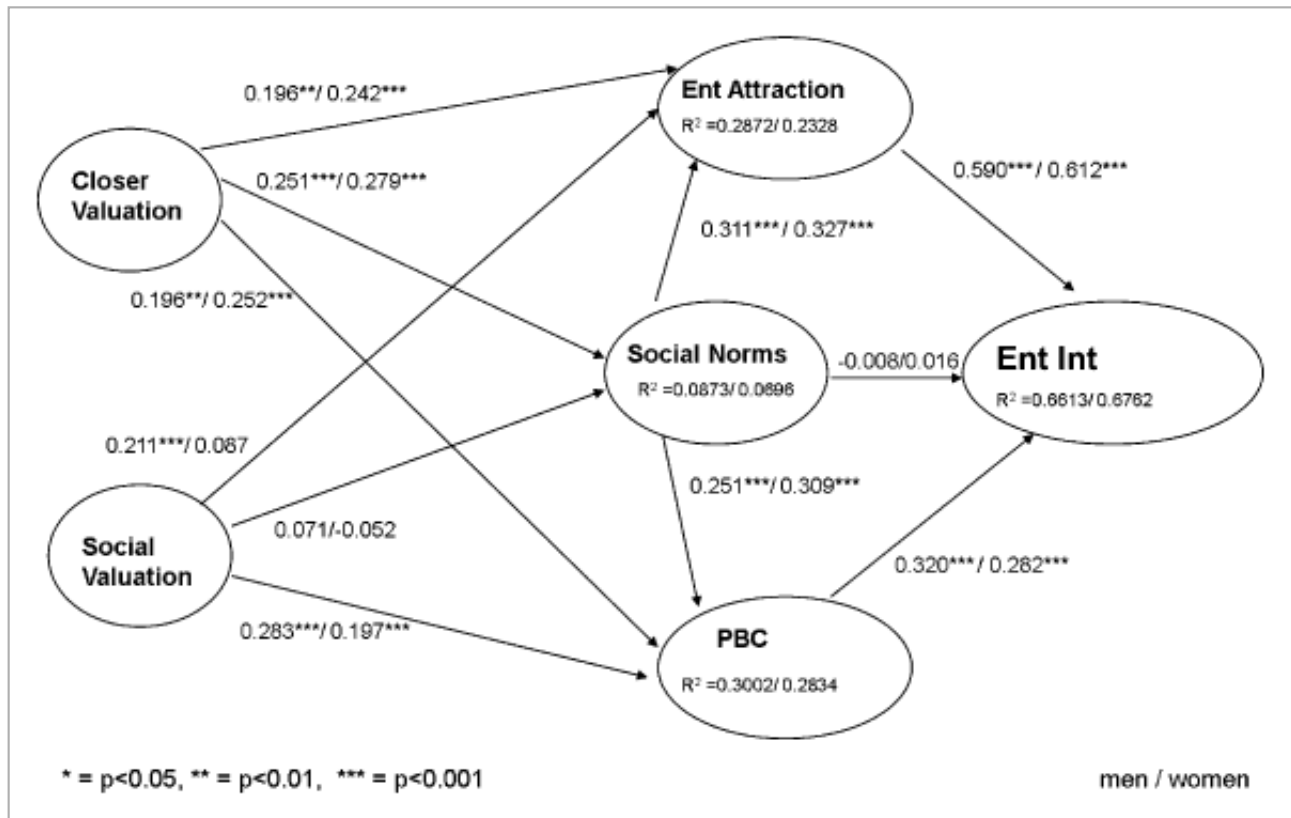


Figure 2.

[Open in figure viewer](#)

Structural Models for Women and Men in the Two Regions ($N_{women} = 250$ and $N_{men} = 254$)

To take into account the regional context, a dummy variable (BED) was included in the model. As shown in Figure 3, the path coefficients are broadly similar and the explained variance for entrepreneurial intention is also notably high (68.7 percent for men and 68.3 percent for women). The same as before, the links between SN and the entrepreneurial intention were not significant, whereas the links between all other constructs of the TPB model were significant.

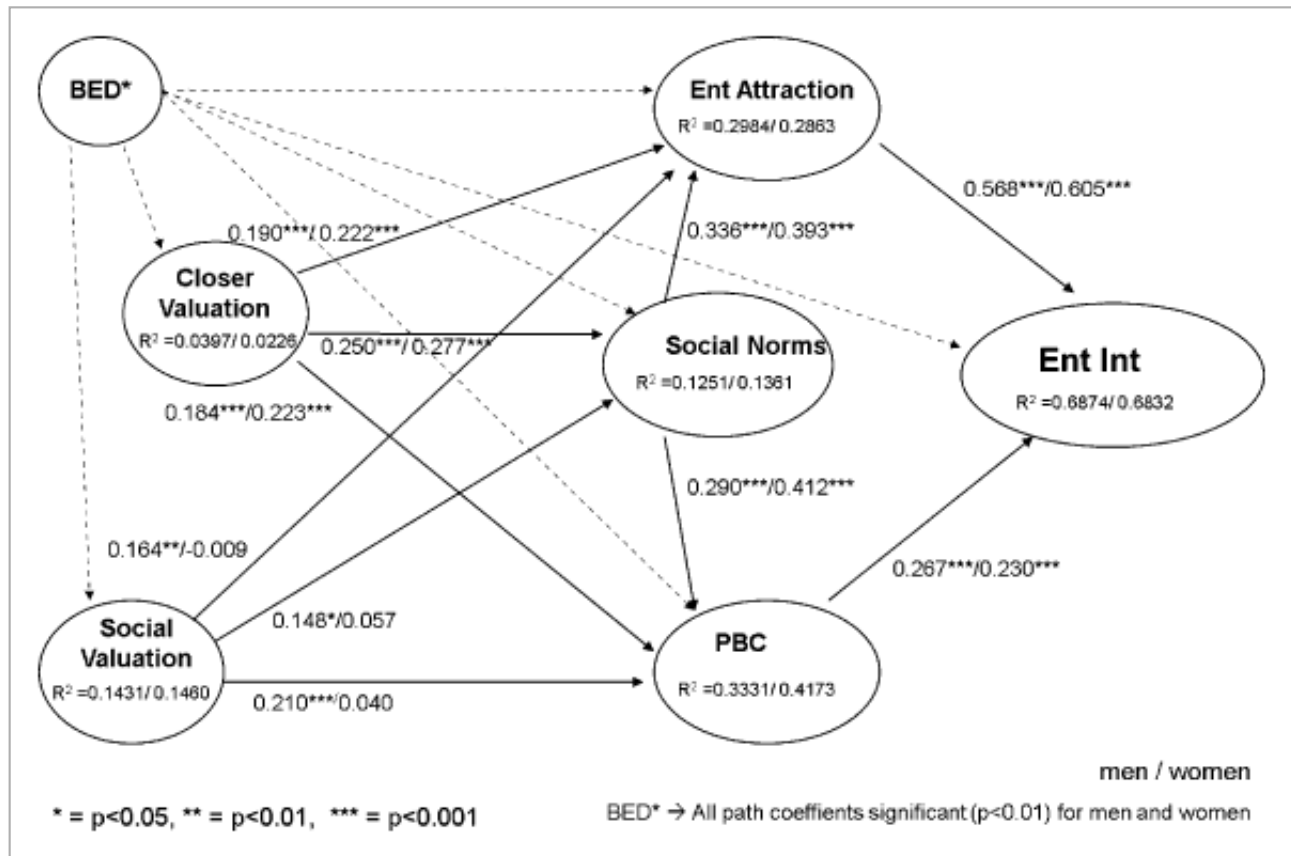


Figure 3.

[Open in figure viewer](#)

Structural Model for Women and Men of the Two Samples Including Regional Effect ($N_{women} = 250$ and $N_{men} = 254$)

Regarding the links between the dummy variable (BED) and the six constructs, all path coefficients were significant in both models (women and men). This means that the region-specific characteristics exert an influence on the perceptions and intentions regarding the start-up, being in general more positive in Bedfordshire. This is in accordance with its higher development level and more pro-entrepreneurial culture. Only SN was perceived more negatively in Bedfordshire.

Finally, to statistically test H3, a multigroup analysis was carried out (Table 6). As may be seen, only two path-coefficient differences were significant: the one between SV and entrepreneurial PA, and the one between SV and entrepreneurial PBC. Therefore, *this result leads to the rejection of H3a , H3b , H3c , and H3f , whereas H3d and H3e are supported .*

Table 6. *t*-Tests for Multigroup Analysis: Men and Women from the Full Sample^a

Links	Path Men	Path Women	Path Difference	Standard Error Men	Standard Error Women
Ent PA-EntInt	0.5680	0.6050	-0.0370	0.0452	0.0526
Ent PA-EntAttr	0.3360	0.3930	-0.0570	0.0412	0.0488
Ent PA-Social Norms	0.2900	0.4120	-0.1220	0.0393	0.0469
Ent PA-PBC	0.2670	0.2300	0.0370	0.0230	0.0282
Ent PA-Closer Valuation	0.1900	0.2220	-0.0320	0.0222	0.0278
Ent PA-Social Valuation	0.1640	-0.0090	0.1730	0.0090	0.0110
Ent Attr-Social Norms	0.3360	0.3930	-0.0570	0.0412	0.0488
Ent Attr-PBC	0.5680	0.6050	-0.0370	0.0452	0.0526
Ent Attr-Ent Int	0.5680	0.6050	-0.0370	0.0452	0.0526
Social Norms-PBC	0.2900	0.4120	-0.1220	0.0393	0.0469
Social Norms-Ent Int	0.2900	0.4120	-0.1220	0.0393	0.0469
Social Valuation-PBC	0.2100	0.0400	0.1700	0.0400	0.0500
Social Valuation-Ent Int	0.1480	0.0570	0.0910	0.0570	0.0730
Closer Valuation-Ent Int	0.1840	0.2230	-0.0390	0.0223	0.0284

PBC-EntInt	0.2670	0.2300	0.0370	0.0469	0.0493
SN-EntInt	0.0410	0.0630	-0.0220	0.0354	0.0487
SN-Ent. PA	0.3360	0.3930	-0.0570	0.0738	0.0546
SN-PBC	0.2900	0.4120	-0.1220	0.0621	0.0515
CV-Ent PA	0.1900	0.2230	-0.0330	0.0717	0.0632
CV-SN	0.2500	0.2770	-0.0270	0.0747	0.0653
CV-PBC	0.1840	0.2230	-0.0390	0.0787	0.0584
SV-Ent PA	0.1640	-0.0090	0.1730	0.0730	0.0687
SV-SN	0.1480	0.0570	0.0910	0.0877	0.0757
SV-PBC	0.2100	0.0440	0.1660	0.0690	0.0579

a Multigroup analysis of links between BED and the six indicators has been omitted for clarity. Differences between the significant.

$t(0.001; 502) = 3.32834$; $t(0.01; 502) = 2.59487$; $t(0.05; 502) = 1.96913$.

*** $p < .001$; ** $p < .01$; * $p < .05$; ns, not significant (based on $t_{(502)}$, two-tailed test).

Discussion

The empirical analysis carried out in this paper has yielded two main results. First, entrepreneurial intention is, both for females and males, the result of socialization processes in which personal perceptions about entrepreneurship (entrepreneurial PA and PBC) play a key role. Thus, this paper once again confirms the applicability of the TPB model to entrepreneurship, irrespective of gender. Men are found to exhibit higher entrepreneurial intentions than women do, but this is the logical consequence of their more favorable PA and PBC.

Regarding their views of the environment around them, both genders have similar perceptions about their macrosocial (SV), microsocial, or closer environment (CV) and support toward the entrepreneurial activity (SN). Therefore, perceived SV does not differ by gender. Instead, what is different is the way SV affects personal perceptions (PA and PBC).

Thus, for males, more positive SV leads them to feel entrepreneurship as more attractive and feasible. In the case of women, perceived SV has no effect on personal perceptions. Following the so-called social feminism view of entrepreneurship (Ahl [2006](#) ; Byrne and Fayolle [2010](#)), it may be argued that females do not see entrepreneurship as a career option for them (Bird and Brush [2002](#)). As a consequence, women's personal perceptions and intentions are not affected by the value society puts on this activity.

Interestingly enough, these relationships hold for two notably different regions. In Bedfordshire, the perceived valuation of entrepreneurship in the wider (SV) and closer (CV) environments is higher, as are the personal levels of PA, PBC, and entrepreneurial intentions. However, this does not affect the nature of these relationships. The results are the same for both regions. In fact, once the country dummy is included (Figure 3), the influence of SV on PA, PBC, and SN is much clearer and more consistent (compared with Figure 2). The other relationships in the model remain essentially unaffected however.

This should make researchers be especially careful when analyzing data from different social environments. The social and economic situation matters. Failure to recognize this may yield biased and/or misleading results. As some authors point out, more comparative studies are needed to fully understand the sociocultural influence on female entrepreneurship (Ahl 2006 ; Verheul, van Stel, and Thurik 2006).

In turn, when the family, friends, and ethnic group (CV) are considered, the value they put on entrepreneurship does not have any differential effect by gender. As the comparison of Figures 2 and 3 clearly shows, results are essentially the same, regardless of the country dummy being included or not. Therefore, both males' and females' personal entrepreneurial perceptions are similarly affected by the valuation of entrepreneurship in their closer environment. In this case, there is no gender difference. This result is in line with that of Verheul, van Stel, and Thurik (2006), who found the effect of “importance of family” to be the same for males and females.

A great majority of men probably exhibit a masculine stereotype, and they do not feel gender discrimination (Bird and Brush 2002 ; Byrne and Fayolle 2010). They tend to consider entrepreneurship as a way to win social prestige or recognition. In contrast, women are more worried about access to some relevant resources because they feel more barriers for the entrepreneurial activity (Becker-Blease and Sohl 2007 ; Brush et al. 2002 ; Carter and Allen 1997 ; Fabowale, Orser, and Riding 1995 ; Marlow and Patton 2005 ; Smith-Hunter 2006). Summarizing, one thing is whether women feel their social environment values the entrepreneurial activity, and another very different one is whether they feel the social environment values their initiatives with the same intensity as those of men.

Previous results have found that less entrepreneurial societies face a shortage of entrepreneurship because the SV effect is not present (Liñán, Urbano, and Guerrero 2011). Only families providing a favorable CV (because there is already an entrepreneur within it, for instance), will promote higher entrepreneurial intentions among their members, but these “entrepreneurial families” are comparatively scarce. However, the relative participation of women in entrepreneurship needs not be very different from that in more entrepreneurial societies. That is, those families and ethnic groups positively valuing entrepreneurship will provide a supporting environment for both males and females (Verheul, van Stel, and Thurik 2006).

At most, it is the step from intention to action that may differ. That is, if women perceive higher barriers than men, a lower fraction of them will try to start-up. In turn, it may be argued that in areas with a more positive SV of entrepreneurship, social institutions are shaped to facilitate start-ups, and therefore, females (and also males) will find fewer barriers. Thus, a higher fraction of women will attempt to start their ventures.

Implications

The results of this paper show that women are not born with lower entrepreneurial intentions than men (Wilson, Kickul, and Marlino 2007). Rather, they perceive the entrepreneurial role as being less adequate for them. This makes them perceive a lower entrepreneurial PA and PBC which, in turn, explains why their intention levels are lower. Therefore, actions to increase female's perceived attraction and feasibility toward entrepreneurship will have an effect on intentions and, eventually, on actual start-ups (Kickul et al. 2008).

On the theoretical side, this result calls for the need to fully understand why a more positive entrepreneurial SV does not lead to higher PA and PBC in women. It probably has to do with entrepreneurship being considered a “male” career option. If this is true, active policy measures to change this view are needed. Measures to increase the perceived SV of entrepreneurship in general will help promote entrepreneurship (Liñán, Urbano, and Guerrero 2011) but especially that of men. They will have little or no effect on the entrepreneurial activity of women.

In turn, the specific promotion of “women entrepreneurs” clubs or associations will increase the visibility of entrepreneurship as a career option for women. At the same time, policies must continue focusing on providing women with a higher infrastructure of tangible and intangible support to facilitate their decision to set up a firm (Marlow and Patton 2005). However, this action is even more necessary in the case of relatively backward regions, such as Seville.

Likewise, higher education at universities can play an important role in the promotion of female entrepreneurship (Kickul et al. 2008; Wilson, Kickul, and Marlino 2007). Entrepreneurship education should be designed not only to overcome actual discrimination (in practical knowledge or access to resources, for instance), but also to take into account the particular perceptions and motivations of women (Bird and Brush 2002; Byrne and Fayolle 2010; Liñán, Rodríguez-Cohard, and Rueda 2011). The inclusion of female role models as guest speakers is a relevant measure in this respect (Kickul et al. 2008).

Limitations

The generalizability of these results should not be taken for granted. A number of limitations may have affected the results. The use of student samples is the first one, as they may not be fully representative of the general adult population. However, despite some criticism regarding the use of student samples (Robinson et al. 1991), some research has shown that the entrepreneurial intentions of university students remain quiet stable after graduation (Audet 2004; Liñán, Rodríguez-Cohard, and Guzmán 2011), as they are at the stage of making a decision about their professional careers (Fitzsimmons and Douglas 2011; Shepherd and DeTienne 2005). Additionally, such a population is repeatedly used in entrepreneurship research, facilitating comparisons (Autio et al. 2001; Kickul et al. 2009; Krueger, Reilly, and Carsrud 2000; Liñán and Chen 2009; Zhao, Siebert, and Hills 2005).

Another limitation derives from the geographic scope of this analysis. It is possible for samples coming from different countries or regions to yield conflicting results. In particular, this sample comes from two developed countries. The results may not be equally applicable to developing economies. Therefore, more research is necessary to confirm or refute these results in alternative settings.

Conclusions

We consider that this paper has contributed to an advance in the understanding of the interplay between gender differences and the social environment in entrepreneurship. It has, first, confirmed that women and men form their intention to start a venture in the same manner. Thus, women have lower entrepreneurial intentions, because they see this option as being less attractive and less feasible than men do.

It has also shown that a more positive perception about the SV of entrepreneurship leads men, but not women, to increase their attraction and sense of feasibility toward the entrepreneurial activity. Hence, women may feel starting a venture is highly valued by the society, but do not think this is an acceptable option for them. This needs to be changed if a substantial increase in the share of female entrepreneurship is sought.

Footnotes

- 1 EU-15 means that the comparison is made between the 15 countries that were members of the European Union before the accession of several East European states in 2004.

References

Wiley Online Library

[Help](#) [Browse by Subject](#) [Browse Publications](#) [Resources](#)

[Agents](#) | [Advertisers](#) | [Cookies](#) | [Contact Us](#) | [About Us](#)

[Privacy](#) | [Site Map](#) | [Terms & Conditions](#) | [Media](#)

WILEY

[Wiley.com](#) [About Wiley](#) [Wiley Job Network](#)

Copyright © 1999-2015 John Wiley & Sons, Inc. All Rights Reserved