Differences Between Men and Women in Opportunity Evaluation as a Function of Gender Stereotypes and Stereotype Activation

Vishal K. Gupta
Daniel B. Turban
Ashish Pareek

Opportunity evaluation represents a core aspect of the entrepreneurial process. Prior research suggests that evaluation of new opportunities is influenced by biases rooted in subjective beliefs, values, and assumptions. In the present study, we used stereotype activation theory to propose that respondent gender (men–women), content of stereotype (masculine–feminine), and the manner in which stereotype information is presented (subtle–blatant) interact to influence evaluations of a new business opportunity. We found that both masculine and feminine stereotype activation influenced men and women’s evaluation of a business opportunity differently depending upon whether the stereotype was blatantly or subtly activated. Our results indicate that gender stereotype activation can both boost and impede men and women’s subsequent actions on entrepreneurial tasks such as opportunity evaluation, depending on the content of the stereotype and the manner in which it is presented. Implications and directions for future research are discussed.

Introduction

Considerable evidence indicates that gender stereotypes can contribute to substantial differences between men and women in business settings worldwide (Baron, Markman, & Hirsa, 2001). Notwithstanding the large numbers of women entering the workplace in recent decades, leadership positions in most business organizations continue to be held by men (Orser, Riding, & Manley, 2006). Such differences between men and women are also found in entrepreneurial tasks like evaluation of new business opportunities (Heilman & Chen, 2003). Theoretical research and empirical evidence indicate that men often show greater proclivity than women to recognize new business opportunities as worth pursuing (Arenius & De Clerq, 2005). Favorable assessment of opportunities is central to the
entrepreneurial process, whether it is individuals acting on their own to start a new business or within established companies to lead a new product–market initiative (Nicolau, Shane, Cherkas, & Spector, 2009). Consequently, there has been considerable interest in why, when, and how some people evaluate opportunities positively, while others cannot or do not (Chiles, Bluedorn, & Gupta, 2007).

One factor that may play a critical role in the perpetuation of gender differences in society is the dissemination of stereotypical images (Davies, Spencer, & Steele, 2005). Researchers have noted that mass media—television, films, newspapers, and magazines—often convey gender-stereotypical information, which makes stereotypes salient and can influence individual choices and decisions (Nosek, Banaji, & Greenwald, 2002). Specifically, stereotype activation theory (SAT) posits that subtle presentation of gender-stereotypical information leads people to respond in stereotype-consistent ways (Wheeler & Petty, 2001), while blatant presentation of the same information motivates stereotype disconfirmation (Nguyen & Ryan, 2008). Although several studies have explored gender stereotype activation effects (Schmader, Johns, & Forbes, 2008), a major limitation is that nearly all of this research has involved masculine stereotypes, and thus, we know little about the activation of feminine stereotypes (Bergeron, Block, & Echtenkamp, 2006).

In the current study, we examine the impact of activating a masculine and feminine stereotype, subtly and blatantly, on evaluation of a new business opportunity by men and women. Our study extends SAT research to opportunity evaluation, a perceptual task involving analysis and intuition to identify meaningful patterns in ambiguous information about emergent events and trends (Baron & Ensley, 2006). We describe entrepreneurship using feminine as well as masculine stereotypical attributes to examine whether simply changing the content of information presented influences evaluation of new business opportunities. We theorize and empirically test our predictions in India, which helps highlight the influence of sociocultural factors on the operation of stereotype activation (Smith & White, 2002) and redresses the under-representation of samples from emerging economies in management research (Nadkarni & Herrmann, 2010). Furthermore, in constructivist societies, such as India, attributes are considered amenable to change (Sinha & Kanungo, 1997), and thus, the effect of stereotype activation is likely to be stronger than in essentialist societies (Eriksson & Lindholm, 2007). Additionally, as noted by the Global Entrepreneurship Monitor (GEM), the rate of entrepreneurial activity in India (~18%) is well above the global average (~6%) and is one of the highest in the world (Manimala, 2002).

To foreshadow, we will propose that opportunity evaluation is influenced by an interaction between the content of stereotypical information (masculine–feminine), manner in which it is presented (subtle–blatant), and respondent gender (men–women). We first present the theory and logic describing the hypothesized effects of activating, blatantly and subtly, a masculine stereotype, and then describe the hypothesized effects for a feminine stereotype. These two predictions when combined describe the pattern of our hypothesized three-way interaction between content of the stereotype, the manner in which it is presented, and the gender of the person.

**Theoretical Background**

Entrepreneurial activity is a result of individuals favorably evaluating business opportunities to introduce new goods and services (Chiles et al., 2007). In modern market-based societies, when a positive evaluation of new opportunities is met by the motivation and potential to pursue them, the outcome is the launch of new endeavours (Bygrave, Hay, Ng,
Prior research distinguishes between enterprising individuals who are pulled toward entrepreneurship from those who are pushed into it (Schjoedt & Shaver, 2007). Pull factors are essentially intrinsic elements such as self-fulfillment; independence; and desire for wealth, status, or power, whereas push factors are aspects of necessity such as insufficient family income, difficulty in finding gainful employment, and the need for flexible work schedule (Shepherd & DeTienne, 2005). Regardless of whether driven by push or pull factors, entrepreneurial activity requires favorable evaluation of opportunity (Solymossy, 2005). Not surprisingly, Eckhardt and Shane (2003) contend that understanding the opportunity evaluation process represents a core intellectual question for the domain of entrepreneurship.

Although conventional economic wisdom advocated an objective value-based perspective of business opportunities, recent research recognizes individual differences in evaluation of opportunities (Eckhardt & Shane, 2003). The recognition of individual-level variations in opportunity evaluation has led to a growing research stream investigating factors affecting evaluation of new business opportunities (Nicolau et al., 2009). In particular, evidence indicates that opportunity evaluation is susceptible to biases, such as those rooted in idiosyncratic beliefs, values, and expectations (Baron & Ensley, 2006). Notably, stereotypes—socially shared beliefs about attributes and characteristics associated with members of a social group—are a relatively prevalent source of bias that can influence judgments and decisions (Fiske & Taylor, 1991).

Stereotypes based on gender tend to be quite influential as gender is a ubiquitous category for stereotyping (Heilman, 2001). Gender stereotypes contain information about widely shared beliefs and norms differentiating the masculine and feminine. Masculine stereotypes associate agentic-instrumental characteristic with men, whereas feminine stereotypes associate communal-expressive characteristics with women: assertive and forceful men and warm and gentle women. These stereotypes are pervasive, and provide relatively well-defined prescriptions for typical male and female behavior (Fiske & Taylor, 1991).

**Activation of Masculine Stereotype**

The presentation of business and entrepreneurship in mass media such as newspapers and magazines, everyday conversations, and TV programs tend to both represent and perpetuate societal gender stereotypes. The language used to describe a phenomenon—discursive practices—shapes the way people think, remember incidents, compose meaning, and make sense of events (Fletcher, 2007). As noted by Ahl (2007), the understanding and the meaning of entrepreneurship is influenced by such discursive practices. For example, Smith and Anderson (2004, p. 137) analyzed stories about entrepreneurship in a wide variety of genres—personal, fictional, autobiographic, journalistic and research articles—and found that the language used to describe entrepreneurship conveyed a stereotypical image of entrepreneurship. Specifically, entrepreneurship typically is described using a masculine stereotype of a “heroic self-made man... driven by the will to conquer, the impulse to fight, [and] to prove oneself superior to others” (Ahl, 2006, p. 599).

Stereotypes have traditionally been thought to be relatively stable and to have a consistent impact on behavior (Nosek et al., 2002). However, recent evidence, based on SAT, indicates that how stereotypical information is presented can influence subsequent behavior (Wheeler & Petty, 2001). For example, information can be presented subtly, such that the link between the stereotype and the targeted domain is implicit, or blatantly, such that the association between stereotypical information and a targeted domain is
explicit and “in-the-face” (Kray, Reb, Galinsky, & Thompson, 2004). Both subtle and blatant activation increase the cognitive accessibility of stereotypical characteristics, which creates a situational predicament that can be felt in situations where one can be judged by, treated in terms of, or expected to fulfill stereotypes about one’s group (Spencer, Steele, & Quinn, 1999). Notably, however, the manner in which stereotypical information is presented—subtly or blatantly—alters the salience of the stereotype, which influences people’s awareness of the stereotype and how they respond to it (Wheeler & Petty).

Considerable evidence indicates that subtle presentation of stereotypical information typically leads individuals to think and act in stereotype-consistent ways (Stone, Lynch, Sjomeling, & Darley, 1999). Such stereotype assimilation occurs because stereotypes are connected to one’s behavioral and attitudinal repertoire (Bargh, 1997). Thus, when people are subtly presented with positive stereotypes about their group, they report being more encouraged and exhilarated, whereas subtle presentation of negative stereotypes leads people to report greater anxiety and lower motivation (Schmader et al., 2008). Notably, however, when stereotypical information is blatantly presented, it can induce psychological reactance and motivate responses inconsistent with the activated stereotype (Brehm, 1966). This reactance is a response that exists only in “the context of forces motivating the person to give up the freedom and comply with the threat or elimination” (Brehm & Brehm, 1981, p. 37). Blatant presentation of positive stereotypical information about one’s group increases anxiety about meeting the high expectations imposed by the stereotype (Beilock & Carr, 2005), whereas members of the negatively stereotyped group perceive the stereotype as an imposed constraint limiting freedom of choice and action (Brehm). Thus, SAT research suggests that subtle stereotype activation encourages assimilation whereas blatant activation leads to reactance to the stereotype.

Two experimental studies demonstrate the differential effects of subtly and blatantly activating a masculine stereotype. In a study examining negotiation dynamics, participants in the subtle condition were told that the most effective negotiators “are rational and assertive, and demonstrate a regard for their own interests throughout the negotiation, rather than being emotional, passive, and overly accommodating” whereas in the blatant condition it was added that “because these personality characteristics tend to vary across gender, male and female students have been shown to differ in their performance on this task” (Kray, Thompson, & Galinsky, 2001). Results indicated that, in competitive negotiations, men performed better in the subtle stereotype condition (assimilation), whereas women performed better in the blatant stereotype condition (reactance). Although stereotype activation research typically examined academic or behavioral outcomes, Gupta, Turban, and Bhawe (2008) extended gender stereotype activation to the study of career aspirations by examining self-employment intentions. More specifically, participants were asked to report their intentions to be self-employed after reading a news article that either subtly or blatantly linked entrepreneurship with stereotypically masculine characteristics. In the subtle condition, the article presented three masculine attributes associated with entrepreneurs (aggressive, risk-taker, and autonomous), and in the blatant condition the article added that these attributes reflect “American masculinity,” elaborated on the characteristics, and provided examples of entrepreneurs who supposedly demonstrated these characteristics (Henry Ford and Thomas Watson). Results indicated that men had lower and women had higher intentions when the masculine stereotype was activated blatantly compared with subtly. Together, these studies demonstrate the effects of activating masculine stereotypes subtly and blatantly. We extend these studies and investigate opportunity evaluation, a perceptual task that requires individuals to “connect the dots” between seemingly ambiguous bits of information (Baron & Ensley, 2006). We expect that men will evaluate a new opportunity more favorably and women less favorably when the
masculine stereotype is activated subtly compared with when it is activated blatantly. We hypothesize:

**Hypothesis 1:** When entrepreneurship is associated with stereotypically masculine characteristics: (a) men will report higher opportunity evaluation when the association is subtle rather than blatant, whereas (b) women will report higher opportunity evaluation when the association is blatant rather than subtle.

**Activation of Feminine Stereotype**

In recent years, researchers have turned their attention to whether group-based advantages induced by subtly presenting stereotypical information can be altered by changing the stereotypical attributes associated with the task. For example, Levy (1996) found that priming common stereotypes about aging (e.g., “senile” and “dementia”) led to memory deficits in elderly patients, whereas associating aging with attributes like “wise” and “experienced” enhanced memory performance. In another experiment, Stone et al. (1999) manipulated race-related stereotypes about golf and found that associating golf with “sports intelligence” led Whites to outperform Blacks, whereas associating it with “athletic ability” led Blacks to outperform Whites. These studies indicate that merely changing the stereotype associated with a particular domain can allow the burden imposed by stereotypes to be lifted from one group, and even transferred to another group. It remains to be seen whether associating an achievement-oriented domain like entrepreneurship with appropriate feminine characteristics can influence subsequent evaluation of new business opportunities.

Three studies have attempted to associate business-related domains with stereotypically feminine attributes, and have produced mixed results. Specifically, Kray, Galinsky, and Thompson (2002) found that linking effective negotiators with stereotypically feminine attributes such as “empathy” and “verbal ability” led women to outperform men on a competitive negotiation task. Bergeron et al. (2006), however, found no effect of presenting a senior administrative position as female-typed on men and women’s decision making. Similarly, Gupta et al. (2008) found that connecting entrepreneurship with “caring” and “humble,” which are stereotypically feminine characteristics that characterize good entrepreneurs (Bird & Brush, 2002), did not influence men and women’s intentions to be self-employed. The mixed findings regarding feminine stereotype activation may occur because characteristics can be successfully associated with a task only when they are consistent with societal norms and values (Steele, 1997). As Czarniawska (2004) noted, for a narrative to be considered acceptable, it must draw on discourses that are perceived as legitimate by the audience. For example, cultural stereotypes about effective negotiators in the United States include “both stereotypically masculine and feminine traits” (Kray et al., p. 390) and thus associating feminine characteristics with negotiation was accepted by participants. However, gender stereotypes about entrepreneurs tend to be predominantly masculine in the United States (Ahl, 2006), and thus associating them with feminine attributes may not be acceptable or believable. In this vein, Steele noted that stereotype activation is predicated on consistency between the stereotypical information presented and societal beliefs; information that is inconsistent with norms and values of a society is unlikely to impact subsequent aspirations or performance.

Associating new stereotypical characteristics with a gender-typed task may be one of the most intriguing aspects of SAT. The SAT literature suggests that associating a stereotyped domain with one set of characteristics rather than another set can alter people’s subsequent actions and behaviors on that task. Such effects occur because attributes and traits associated with a task impose “a particular bounded rationality” on subsequent
perceptions and actions in that domain (Morris, Miyasaki, Watters, & Coombs, 2006, p. 222). The stereotypical attributes associated with a task provide a frame of reference for interpreting the requirements and expectations for that task.

In Western countries, entrepreneurship and business management are seen as “male, and not only male, but lean, hungry, predatory and hostile” (Greer, 1999, p. 299) attributes consistent with an “alpha male” image of entrepreneurs and managers (Gupta & York, 2008). Feminine characteristics are considered antithetical to business entrepreneurship in the United States, as in many other Western countries (Ahl, 2006). We theorize, however, that in societies where feminine characteristics can be seen as congruent with entrepreneurship, it should be possible to associate entrepreneurship with relevant feminine attributes.

Several factors suggest it may be possible to link entrepreneurship with stereotypically feminine characteristics in India. First, stereotype redefinition is facilitated when there are appropriate role models (Marx & Roman, 2002). According to GEM data (Manimala, 2002), the rate of entrepreneurial activity among Indian women (14%), although lower than Indian men (22%), is higher than women in the United States (8%) as well as women globally (5%). The participation rate in entrepreneurial activity for women ranges from about 0.6% in Japan to 18.5% in Thailand, with India trailing only Thailand and Chile (Reynolds, Bygrave, Autio, Cox, & Hay, 2002). Mitra (2002) attributed the high number of women-owned businesses in India to structural barriers that discouraged women from pursuing salaried jobs, and channeled them into self-employment. A large number of these Indian women entrepreneurs are involved in running small independent businesses such as neighborhood convenience stores where most locals shop for their everyday needs. These women serve as highly visible role models who provide evidence that stereotypical feminine characteristics can be useful for entrepreneurship. This is consistent with the idea when women enter a particular profession in large numbers, it comes to be accepted as an appropriate job for women (England, 2000).

Second, Indian society has historically placed both masculinity and femininity at the center of religious rituals and practices, which serves “to produce powerful, pervasive, and long-lasting moods and motivations” that accept the masculine and feminine as equally legitimate and beneficent (Christ, 2006, p. 42). Perhaps due in part to these norms and values, stories about successful Indian entrepreneurs tend to emphasize their caring nature, willingness to help others, and responsible behavior “in a way acceptable to society” (Gupta, 1992, p. 68), characteristics consistent with a feminine stereotype. Finally, unlike Western cultures where attributes are typically considered fixed and immutable, the Indian culture generally views attributes as more flexible and adaptable to the situation (Sinha & Kanungo, 1997). When people see attributes as changeable, rather than rooted in “essential” innate characteristics, we theorize they will be more open to associating male-typed domains (e.g., entrepreneurship) with feminine characteristics also. Sundaram (1996, p. 3) noted that the “acceptance of contradictory ideas is a natural part of the Indian way of life,” suggesting that Indian people are able to readily accept contradictions.

Thus, we theorize that the greater number of women entrepreneurs, traditional emphasis on feminine characteristics as desirable and aspirational, and proclivity to view attributes and characteristics as relatively malleable should make it possible to link entrepreneurship with stereotypically feminine characteristics in India. Based on the belief that Indian participants will accept the feminine attributes of entrepreneurship, we expect that women will evaluate a new opportunity more positively and men less positively when the feminine stereotype is subtle compared with blatant. We hypothesize that:
Hypothesis 2: When entrepreneurship is associated with stereotypically feminine characteristics: (a) women will report higher entrepreneurial opportunity evaluation when the association is subtle rather than blatant, whereas (b) men will report higher opportunity evaluation when the association is blatant rather than subtle.

Note that hypotheses 1 and 2 combine to form a three-way interaction of respondent gender, stereotype content (masculine or feminine), and stereotype activation (subtle or blatant) on opportunity evaluation. Specifically, for both the masculine and feminine stereotypes, we expect a cross-over interaction, albeit with the exact opposite patterns, since the masculine stereotype about entrepreneurship is more positive for men, whereas the feminine stereotype is more positive for women.

Method

Participants
We collected data from business students at a large public university in western India. We contacted 546 students, of which 429 completed the survey (226 men and 203 women). The average age of our sample was 22 years, which is within the age group in which early-stage entrepreneurial activity is common (Hisrich, Langan-Fox, & Grant, 2007). The GEM findings reveal that, in the 18–24 age group, more than 80% of Indians engaged in entrepreneurial activity reported wanting to become entrepreneurs (Manimala, 2002). Notably, research suggests that wanting to pursue entrepreneurial activity, rather than being forced into it due to lack of alternatives such as paid employment, is more strongly associated with favorable outcomes such as job creation, business growth, and economic development (Bygrave et al., 2003).

We chose business students as our sample for several reasons. First, sampling only business students allowed us to effectively control for “surface-level” differences between men and women, such as education and professional training that have been found to influence outcomes in business settings. Second, SAT researchers have argued that stereotype activation influences individuals who can identify with the targeted domain (Smith & White, 2002), and so we sought participants who were trained in business issues. Third, business students are believed to represent a significant share of the pool of entrepreneurially oriented individuals in developing countries (Gupta & Fernandez, 2009), and there exists a strong emphasis among policy makers in encouraging business students to be entrepreneurial (Hisrich et al., 2007). For these reasons, we believe such students are an appropriate sample for our study.

Procedure
We invited potential respondents to participate in a study on business decision making. We randomly assigned men and women to one of six experimental conditions—four stereotype conditions (subtle and blatant masculine activation, and subtle and blatant feminine activation), nullified gender-neutral condition, and control condition. An experimental approach is considered particularly appropriate to investigate variation in evaluation of new business opportunities between men and women (Nicolau et al., 2009).

Following prior research (Smith & White, 2002), our manipulation for stereotype activation was contained in a one-page (fictitious) news article provided to participants in each experimental condition. As our experiment involved six conditions (mentioned earlier), we had a total of six articles with one article per condition. We adapted the articles
developed and validated by Gupta et al. (2008) in the United States to make them appropriate for the Indian context. This adaptation involved minor changes such as substituting “Indian Institute of Management” and “Professor Inderpreet Chadha” instead of “Harvard University” and “Professor Chris Smith” in the U.S. articles. We used the same attributes that were used in the United States—“aggressive,” “risk taking,” and “autonomous” for masculine conditions, and “caring,” “making relationships,” and “humble” for feminine conditions. Thus, except for “Indianizing” the articles to make them relevant for our sample, we employed the same articles that were used in prior research. The articles used in the present study are available from the first author.

In the subtle condition, the article simply described the three (masculine or feminine) characteristics, while in the blatant condition, the stereotype was highlighted with three emphasis points: (1) participants were told that entrepreneurs show characteristics of masculinity (or femininity); (2) elaboration of the three characteristics in relation to entrepreneurship; and (3) presented with successful real-world Indian entrepreneurs (Dhirubhai Ambani and JRD Tata in the masculine condition and Ekta Kapoor and Shehnaz Hussain in the feminine condition). Thus, the subtle and blatant conditions presented the same three characteristics as stereotypical of entrepreneurs, but differed in their emphasis on the stereotype. The masculine and feminine stereotype articles were identical, except for the characteristics and examples. Additionally, in the control condition, participants read a newspaper article stating that entrepreneurial skills can be taught through university education (no stereotype activation). In the gender-neutral condition, participants read an article that associated entrepreneurship with gender-neutral characteristics, namely being “creative,” “well-informed,” “steady,” and “generous” (stereotype nullification).

To ensure that participants carefully read the information presented to them, we tested their comprehension of the manipulation article using a multiple-choice question. Specifically, each participant was asked to identify the stereotypical attributes linked to entrepreneurship in the article they had read. Only data from those who answered this question correctly were used for further analyses (n = 298, ~70%). We then presented participants with a short scenario about a potentially profitable new business opportunity (Appendix A), which was adapted from the case developed by Keh, Foo, and Lim (2002). The scenario made no mention of the industry to avoid potential biasing influence of gender-typical industries (e.g., construction, day care). Finally, participants evaluated the venture opportunity described in the scenario using a multi-item Likert scale (described later).

Measures

We used a three-item, 5-point scale (α = .72) to measure respondents’ evaluation of the new business opportunity described in the scenario (Keh et al., 2002). Specifically, participants indicated the extent to which they (1) would like to pursue the idea further; (2) can take the idea and turn it into real business; and (3) can successfully start a new venture based on the idea. Responses on the three items were averaged to form an overall opportunity evaluation score for each respondent.

Analyses and Results

Table 1 presents means and standard deviations by condition. Mean values refer to the average score on the three-item opportunity evaluation scale. Note that our research design can be conceptualized as either a 2 × 2 × 2 (respondent gender × stereotype...
content \times \text{manner of activation}, \text{respectively}) \text{ with two additional conditions: control and nullified (for male and female respondents, thus four cells), or as a } 2 \times 6 \text{ (respondent gender } \times \text{ stereotype manipulation conditions). Before examining the hypothesized three-way (eight-cell) interaction, we conducted an omnibus } 2 \times 6 \text{ analysis of variance (ANOVA). Results indicated a main effect of stereotype manipulation, } F(5, 286) = 2.75, p < .05, \eta^2 = .05, \text{ and, more important for our hypotheses, a significant gender } \times \text{ stereotype manipulation interaction effect, } F(5, 286) = 3.71, p < .01, \eta^2 = .06. \text{ These results indicate that differences in opportunity evaluation between men and women were influenced by experimental condition.}

Focusing on the four stereotype activation conditions (subtle masculine, blatant masculine, subtle feminine, and blatant feminine) to test our hypotheses, we conducted an omnibus } 2 \times 2 \times 2 \text{ (gender } \times \text{ implicit–explicit } \times \text{ masculine–feminine) ANOVA with opportunity evaluation as the dependent variable (see Figure 1). As expected, we found a significant three-way interaction between gender, stereotype content, and manner of activation, } F(1, 191) = 10.92, p < .01, \eta^2 = .05. \text{ Such results indicate that the content of stereotypical information (masculine–feminine), the manner in which it is presented (subtle–blatant), and participant gender (men–women) interacted to influence opportunity evaluation.}

For the masculine stereotype, we expected men to report higher opportunity evaluation when the stereotype was activated subtly versus blatantly, and women to report higher opportunity evaluation when stereotype was activated blatantly versus subtly. In support of hypothesis 1, for masculine stereotypical information, we found a significant two-way interaction between manner of activation and participant gender, } F(1,92) = 6.85, p < .05, \eta^2 = .06. \text{ We examined simple main effects to determine whether the interaction fit the hypothesized pattern. As expected, women reported more opportunity in the blatant versus subtle activation conditions (3.95 and 3.57, respectively; } t(41) = 2.68, p < .05). \text{ However, for men, although we expected greater opportunity evaluation in the subtle versus blatant
condition, there were no differences based on activation (4.03 versus 4.08). Thus hypothesis 1a was not supported, while hypothesis 1b was supported.

For the feminine stereotype, as articulated in hypothesis 2, we expected women to report higher opportunity evaluation when the stereotype was activated subtly versus blatantly whereas men would have the opposite pattern. The two-way interaction of manner of activation (subtle–blatant) and participant gender (men–women) was significant, \( F(1,99) = 10.51, p < .05, \eta^2 = .09 \), and we proceeded to test the simple main effects. As hypothesized, women reported greater opportunity evaluation when the feminine stereotype was activated subtly versus blatantly (3.88 versus 3.42; \( t(47) = 2.21, p < .05 \)), providing support for hypothesis 2a. Further, hypothesis 2b also was supported as men reported greater opportunity evaluation when the feminine stereotype was activated blatantly versus subtly (3.83 versus 3.43; \( t(43) = 2.65, p < .05 \)).

In summary, the results provide relatively strong support for the three-way interaction. We found complete support for our hypothesized effects with the feminine stereotype and partial support for the hypothesized effect with the masculine stereotype.

**Discussion**

Much interest in entrepreneurship centers on the social and mental processes that influence individuals’ evaluation of new business opportunities. The present study was designed to explore the impact of gender stereotype activation on opportunity evaluation. We posited that gender stereotype activation may be one mechanism that explains differences between men and women in opportunity evaluation. Specifically, we theorized and found that opportunity evaluation is influenced by an interaction between what stereotypical information is activated (masculine–feminine), how it is activated (subtle–blatant), and who it is presented to (men–women). Men and women’s opportunity evaluation depends on the manner in which gender stereotype is activated and the content of the stereotype. As such, our results contribute to the knowledge of processes underlying
variations in the evaluation of business opportunities (Eckhardt & Shane, 2003) as well as the activation of gender stereotypes (Wheeler & Petty, 2001).

A notable finding of our research is that it is possible to link entrepreneurship with stereotypically feminine attributes in India and influence men and women’s subsequent assessment of evaluation of a new business opportunity. Specifically, we found that, as predicted, when entrepreneurship was subtly associated with stereotypically feminine characteristics women reported higher opportunity evaluation than men, in the same way that men reported higher opportunity evaluation when entrepreneurship was subtly associated with stereotypically masculine characteristics. These results indicate that differences between men and women in opportunity evaluation are, at least partly, situational, contributing to an emerging stream of research examining the mechanisms underlying variations in opportunity evaluation (Nicolau et al., 2009). Our results suggest that it may be premature to accept, as some have asserted (e.g., Arenius & de Clerq, 2005), that men are simply more likely than women to perceive business opportunities more favorably. Rather, our results show that the words used to describe entrepreneurship set the boundaries of how it is perceived (Bruni, Gherardi, & Poggio, 2004). In the context of the present study, simply making appropriate stereotypical information cognitively accessible creates a situation-specific predicament (Steele, 1997) that altered the pattern of responses between men and women on tasks such as opportunity evaluation.

The SAT literature involves a paradox. Although subtle stereotype activation motivates assimilation such that individuals think and act in stereotype-consistent ways, blatant stereotype activation evokes contrastive attitude and behavior. Prior research on the counterintuitive effect of altering the manner in which stereotypical information is presented has largely been limited to masculine stereotypes that have a long history of association with business domains. Furthermore, few studies have directly compared responses with subtle and blatant stereotype activation. To provide a strong test of changing the manner of stereotype activation, we presented both masculine and feminine stereotypical information subtly and blatantly. As expected, we found that assimilative and contrastive effects occur for feminine stereotype activation—simply changing the manner in which stereotypically feminine attributes were linked with entrepreneurship significantly altered opportunity evaluation.

The results for the masculine stereotype were somewhat mixed. We found that, as expected, women reported higher opportunity evaluation when the masculine stereotype was blatantly versus subtly presented. For men though, contrary to our expectations, opportunity evaluation remained consistent across subtle and blatant conditions. Eriksson and Lindholm (2007) argued that men will succumb to blatant positive stereotypes only when they perceive they have an unfair advantage over women. Perhaps, in a relational society like India where responsibility to extended family takes precedence over individualistic aspirations and goals, men do not believe that masculine stereotypes confer additional advantage on them. Research is needed to replicate our findings and to further examine possible boundary conditions for stereotype activation effects on outcomes.

To summarize, our research provides evidence that variation between men and women in the evaluation of new business opportunities results from the interactive influence of linking entrepreneurship with masculine or feminine characteristics and presenting this stereotypical information subtly or blatantly. Notably, unlike studies that attribute differences in opportunity evaluation between men and women to relatively stable biological or psychological aspects (Mirchandani, 1999), we used SAT research to place situational aspects front and center. Our research highlights the need to acknowledge and address the insidious effects of associating gender stereotypical information with entrepreneurship.
We echo the conceptual insight offered by Ahl (2006, 2007) who emphasized that the language used to describe entrepreneurship influences how it is perceived in society. Bruni et al. (2004, p. 258) caution that when the social construction of entrepreneurship involves “mingling gender themes with American folklore and Western ethnocentrism” as has been the case in media, texts, and classrooms, it leads to discourse that creates differences between men and women in entrepreneurship. Our research indicates that differences in opportunity evaluation between men and women can be alleviated, and possibly eliminated, by changing the language associated with entrepreneurship. In terms of practical implications, our research reveals the potential benefits of including stereotypically feminine attributes and female role models in entrepreneurship development programs, such as classrooms, books, and case studies.

Limitations and Directions for Future Research

We acknowledge certain limitations of our study, which also indicate directions for additional research. We theorized and tested our predictions in one country. Our approach has the advantage of holding extraneous factors constant (e.g., laws related to participation of men and women in the workforce). Furthermore, studies that contextualize predictions within the cultural context of a particular country, as was done in the present study, are able to examine and apply existing theoretical tenets and to develop new insights for further research (Rousseau & Fried, 2001). The present study used the SAT paradigm, which has previously received empirical support in several Western countries (Eriksson & Lindholm, 2007). Our results indicate that the fundamental tenets of SAT are not limited to a particular cultural setting and the implications of our research can be broadly applied to other settings. Yet, following Cook and Campbell (1979) who noted that external validity is best viewed as a characteristic of a stream of research and not a single study, we encourage future research to examine the generalizability of our results to other societies using samples with different cultural orientations.

Critics of SAT have observed that researchers often immediately follow the presentation of stereotypical information with measurement of the dependent variable (Cullen, Hardison, & Sackett, 2004) as we did in the present study. This approach may be inconsistent with real-world settings where the evaluation of a business opportunity may lag exposure to stereotypical information by several hours, days, or weeks. Cadinu, Maass, Rosabianca, and Kiesner (2005, p. 576) noted that the effect of stereotype activation is likely to amplify over time as stereotype-induced thoughts and actions interact in a “dynamic and mutually reinforcing” cycle. Thus, it is possible that when opportunity evaluation lags stereotype activation by a time considerably longer than in the present study, the effects are stronger than what we found. Research that examines the effects of stereotype activation over time is needed. However, such studies are most useful when one knows the optimal time lag for a given relationship, otherwise, extended-time studies can lead to biased estimates and incorrect findings.

Yet another limitation pertained to the specific scenario we used. We followed Keh et al. (2002) in presenting participants with a scenario that described the entrepreneurial opportunity in a general way, without providing specific details and in-depth information about the business and its context. Prior entrepreneurship research has noted that opportunity evaluation may be influenced by individuals’ tolerance for ambiguity, which Teoh and Foo (1997) defined as the ability to respond confidently to ambiguous situations without seeking more information. It is possible that the strength and direction of the relationships proposed in our study are influenced by tolerance for ambiguity, which provides an interesting area of inquiry for future research.
Our study, consistent with prior SAT research (e.g., Smith & White, 2002), used a (fictitious) newspaper article to manipulate gender stereotypical information. Although such a manipulation is a common procedure in SAT research, it is difficult to imagine a modern society where people are exposed to only a single information source. In general, stereotypes are conveyed through multiple media such as newspapers, books, magazines, articles, TV shows, and cinema. It is possible that, in some contexts, the information presented in different media is at odds with each other, which can make the world seem like “a buzzing, blooming confusion” (James, 1890, p. 462). We encourage future research to examine the effect of exposing men and women to multiple sources of gender stereotypical information about entrepreneurship.

Notwithstanding the limitations of our research, our study has several methodological strengths. First, we used an experimental approach, which is suitable for asking the “can it happen” question (Ilgen, 1986). Experimental studies have the merit of high internal validity and help eliminate alternative explanations for possible cause–effect connections. Second, we tested our hypotheses in India, which enabled us to respond to calls for research “in countries that are emerging as important global players and at the same time have sociocultural contexts very different from those of western countries” (Nadkarni & Herrmann, 2010, p. 1067). Studies that pay attention to relevant facts, events, and issues in other societies and link them with observed findings are critical to meaningful theory development in a globalizing world. Third, the participants of this research study fell in the 18–24 age group, which in India has the lowest proportion of people attributing their pursuit of new opportunities to push factors such as lack of alternative employment (Manimala, 2002). Fourth, although the nature of the research participants’ experiences did not exactly mirror those of a real organizational situation, several features of this task and of our participants achieved what Berkowitz and Donnerstein (1982) referred to as “mundane realism.” Lastly, our analysis was based on data obtained only from participants who responded accurately to the question about the content of the manipulation article. To summarize, we have confidence that gender stereotypes help explain variations in opportunity evaluation between men and women as we found in our study, and we encourage additional research in other settings to empirically examine the generalizability of our findings across populations, time periods, and dependent variables.

Conclusion

Whether it involves starting a retail store, a restaurant, or an Internet site, positive evaluation of a new opportunity is an important part of any entrepreneurial venture. Prior research indicates that the rate of favorably evaluating new business opportunities is, in general, higher among men than women. We utilized a stereotype activation perspective to examine differences between men and women in evaluating new business opportunities. We extended prior research by theorizing and finding that the gender stereotypical characteristics associated with entrepreneurship influence how participants perceive new business opportunities. Specifically, for the feminine stereotype we found that in the subtle condition, both men and women assimilated to the stereotype, whereas they reacted against the stereotype in the blatant condition. For the masculine stereotype women assimilated with the subtle condition and reacted against the blatant condition, although men reported equally high opportunity evaluation in both the subtle and blatant conditions.

Taken in sum, our finding that the content of the stereotype and manner in which it is presented influences evaluations of a business opportunity suggests that the situational predicament engendered by making gender stereotypical information salient plays a role
in explaining differences between men and women in entrepreneurial settings. Furthermore, the empirical support we found in India enhances confidence in generalizability of stereotype activation research to non-Western societal contexts. Future research aimed at expanding and testing our hypotheses to other entrepreneurial processes, possibly over time, will enhance the validity of the findings presented here.

Appendix A

Scenario Describing a New Business Opportunity

Jaspreet Ahluwalia is a successful retired executive with over four decades of experience in top management positions of many highly successful companies. Jaspreet now spends time encouraging young people around the world to start new businesses. Jaspreet believes that guiding and mentoring young people will help them start their own business.

Jaspreet has an idea for a new business and has already asked around to see if it is a good idea. Some associates and other experts who are quite knowledgeable about the business have given very positive feedback on the idea. Jaspreet does not believe in-depth research will help find out any new information about the challenges and problems associated with starting this business, and published data are too general to be useful. However, based on the positive feedback from people, Jaspreet believes that this idea has tremendous potential and this business can bring tremendous success to those who are willing to work for it. Jaspreet is enthusiastic about the business and feels that it is the perfect opportunity for a young person interested in starting a new business.

There are a few large businesses in the same industry but they have not targeted the market segment that Jaspreet is aiming for. This segment of the population certainly needs this product. Jaspreet is unsure whether the market is still growing or matured. If the market has reached maturity, it is likely for a new business to be squeezed out of the market. If the market is still growing, the new business will be able to survive the entry of large companies into this market segment. Jaspreet believes that that there are only a few small businesses that are still surviving in the industry.

Jaspreet estimates it will take at least Rs. 4,000,000 to finance the new business. As Jaspreet has Rs.1,000,000 in savings to help start the new business, the rest of the investment funds will have to be borrowed from the bank or partners. The local government and some regional banks have already agreed to provide some support for the venture, provided the person starting it has the right attributes and qualities to take this responsibility.

Note (information not included in the experiment): At time of study, 1 INR (Rs.) = .02 USD

REFERENCES


Vishal K. Gupta is Assistant Professor of Strategy and Faculty Fellow in Center For Leadership Studies at School of Management, State University of New York.

Daniel B. Turban is Professor and Department Chair at Department of Management, University of Missouri.

Ashish Pareek is Assistant Professor at Department of Management Studies, Maharshi Dayanand Saraswati University, Ajmer (Rajasthan, India).

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