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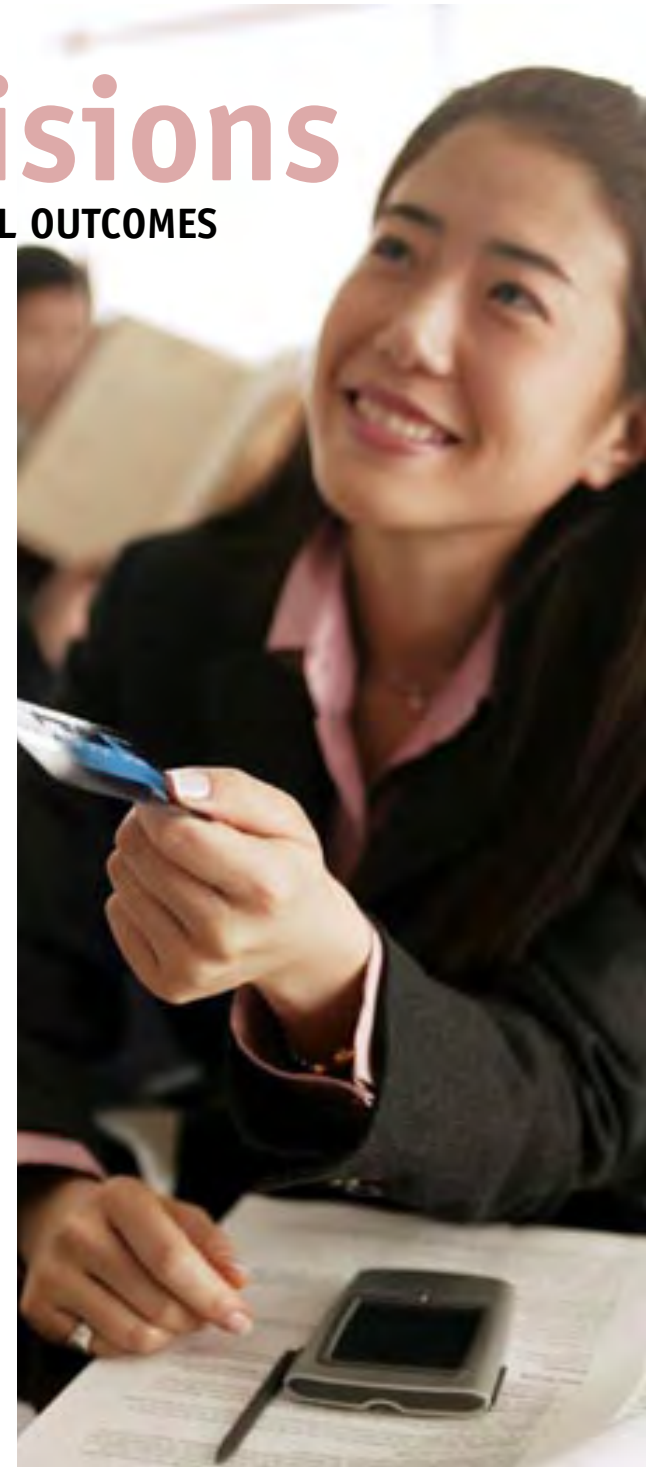
EXPLORING THE COGNITIONS AND CHOICES THAT RESULT IN DIFFERENTIAL OUTCOMES

by Alice Wieland

Although there has been much progress in the improvement of the status of women in the last two decades, including significant gains in educational and occupational attainment, there are still discrepancies of outcomes in the workplace for men and women with similar training and experience. According to the U.S. Department of Labor, women now make up almost 47% of the domestic labor force and occupy over 51% of managerial and professional positions. Even though the pay gap has narrowed, women still earn 80% of what men earn. Additionally, there are still very significant disparities in the most prestigious and powerful positions. Women hold a small minority in elected governmental positions, (16% of Congressional seats, for example), on Fortune 500 boards (15%), and as Fortune 500

CEOs (under 3%). Furthermore, fewer than 18% of full professors at business schools are female.

To date, there has been much research related to sexism, discrimination, and biased evaluations of women for such traditionally masculine roles as management (Heilman, 2001; Heilman, Block, and Martell, 1995; Heilman and Haynes, 2005; Heilman, Wallen, Fuchs, and Tamkins, 2004; Rudman and Fairchild, 2004; Rudman and Glick, 1999, 2001). If there are cues in the environment that suggest certain courses of action or occupational choices would likely lead to discrimination or would present significant barriers to obtaining desired outcomes, however, it is a rational and self-protective choice to select a different path. People normally won't put themselves in situations where failure is likely. As such, conclud-



ing that differential sex outcomes results from discrimination may be overestimating its direct influence. (Indirectly discriminatory practices may, however, act as a deterrent, by discouraging certain populations from pursuing paths where bias is likely). A neglected contributory factor of differential gender representation may be people's own decisions related to which paths are worth pursuing based on subjective cost-benefit analyses: risk perceived and likelihood of success \times reward value.


To tackle the overarching question of how sex and gender influence the decisions of men and women, a few different contexts were selected for examination. Specifically, of interest are decisions in competitive, risky, and entrepreneurial environments. Recent research mostly notes that women are less likely to compete, are more risk averse, and are less likely to embark on an entrepreneurial career path. I will now explore each of these contexts briefly and suggest some conclusions that can be drawn from the research.

COMPETITIVE DECISIONS

An abundance of current research suggests that the lower representation of women at the top of organizations is a consequence of women being innately less competitive than men (Croson and Gneezy, 2009; Gneezy, Niederle, and Rustichini, 2003; Niederle and Vesterlund, 2007, 2008). If this stream of research is accurate, an argument



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could be made that the status quo is inherently adaptive, and women are underrepresented in high-status occupations because of their inferior fit for these occupations. To tackle this conclusion, Professor Rakesh Sarin of the UCLA Anderson School of Management and I ran a series of experiments examining participant's feelings of competence and measuring actual willingness to compete against another randomly selected participant for performance payments on various quizzes, some sex-typed (math, fashion) and some neutral (verbal, crafts). In most domains we found that men and women opted to compete at different rates based on the gender stereotypes of competence associated with the domain, while there were no actual sex differences in performance on any of the tasks. In other words, although men and women had similar abilities in most of the domains examined, each sex only chose to compete at higher rates in the domains that were stereotyped to be gender congruent. Additionally, we examined whether beating others in competitive situations was important to one's self-esteem and, if it was, whether this factor related to decisions to compete. We found that, in general, winning at competition was more important to men's feelings of self-worth than women's, and this variable mediated the relationship between sex and how strongly one preferred the competition option (Wieland and Sarin, 2011).

RISKY DECISIONS

The last two decades have produced much research related to sex differences in risk aversion, with most research finding women to be more risk averse than men in different arenas (Byrnes, Miller, and Schafer, 1999; Carr and Steele, 2010; Croson and Gneezy, 2009; Eckel and Grossman, 2002, 2008). Risk aversion refers to the preference for a safe option with less uncertainty (risk) and a lower expected value over another option with a higher expected value but also greater volatility or uncertainty. Risk-taking has been referred to as an “attribute of the masculine psychology” (M. Wilson and Daly, 1985) and is postulated to be a means for a man to gain positions of power. In their meta-analysis of sex differences in risk-taking, Byrnes and colleagues (1999) found that men took more risks even when it was clearly a bad idea and that the inverse was true for women: women did not take enough risks that could result in positive payoffs, even though such risks were clearly a “good idea.” The suggested implications would be a lower likelihood to enter the tournaments that result in progression up the organizational hierarchy and greater reluctance to take on challenging assignments that may not result in successful outcomes.

Again, Professor Sarin and I tackled these findings by exploring the conditions under which sex differences in risk aversion were or were not present. Interestingly, we did not, for

the most part, find the sex differences in risk aversion so often noted in the prior literature when we asked participants to value gambles for a real event. We controlled for how probable the participant believed the anticipated outcome was, and this was the main significant predictor for the valuation of most gambles. We did however note two significant exceptions in our research. When the participants believed that their decisions would be compared to same-sex peers, men were significantly more risk tolerant than men and women who were not provided this information and than women who were also given this additional information. Men were also more risk tolerant when asked to value gambles in the language used in traditional behavioral decision-making/experimental economics research: valuing a gamble related to picking a ball from an urn with a 50% probability of being selected. Although we will be exploring these findings in future studies, the implications of this research thus far is that women and men appear to have similar levels of risk tolerance (at least for valuing risky gambles), but men show higher risk tolerance when they believe their choices will be public information—and that traditional operationalizations of risk aversion may promote gender differences. This research speaks to the power of social norms on risky behavior. Men may believe it is an “attribute of the masculine psychology” to show greater risk tolerance and

therefore will make decisions reflective of that norm only when the threat of audience evaluation is present.

ENTREPRENEURIAL DECISIONS

Both propensities for competition and risk tolerance are related to decisions to embark on an entrepreneurial endeavor. Research suggests that women leave the corporate track for entrepreneurial opportunities, perhaps because of the glass-ceiling effect, that is, the invisible barrier that keeps women and minorities from advancing up the corporate hierarchy (Brush, 1999). Even when entering business for themselves, women are still haunted with other barriers to achievement (Kepler and Shane, 2007; Powell and Eddleston, 2008; F. Wilson, Kickul, and Marlino, 2007) such that their businesses underperform relative to those of male entrepreneurs. New venture decisions—opportunity selection and investments, for example—are intricately related to one’s cognitions about how likely the venture is to be successful and the extent to which the entrepreneur believes he or she has the capacities and resources to manage the venture toward successful outcomes.

In this set of studies, I examined the mechanisms by which one’s sex influences decision-making in the applied domain of entrepreneurial opportunity selection and investment decisions (N=514). In two studies, participants rated various business ventures that were designed to be

either congruent with the masculine gender role or congruent with the feminine gender role, and measured participants' self-efficacy related to running a venture, how much instrumental social support was expected for running the business, how much risk was perceived as inherent in the venture, and how personally desirable or attractive each venture was. Using regression analysis to analyze the data we found that participant sex (as a proxy for gender) exerts a powerful influence over cognitions, such that actors perceive themselves to have greater self-efficacy and available social resources in gender-congruent opportunities. These factors, combined, have a significant effect on the amount of risk perceived in different ventures, nudging people to select ventures that are sex-role congruent and women to invest more in ventures that are typed as feminine and less in ventures that are sex-typed as masculine. Based on these findings, we can also speculate that if women feel less competent in a field incongruent with their sex—high technology, for example—this lower confidence may not only predict that fewer women would enter or start these businesses but may also imply greater aversion to more aggressive decisions related to growing and financing the business and even limit the recognition of viable opportunities in gender-incongruent domains. The unattenuated result of these patterns of cognition may be the unequal distribution of men and women in

the most rewarding and lucrative entrepreneurial opportunities.

IMPLICATIONS

Several different mechanisms could potentially produce sex differences in decision-making that would result in the unequal distribution of men and women in highly lucrative and prestigious occupations. There are biological sex differences related to the organizing effects of androgens and estrogen in the womb. Activating hormones, such as testosterone, may also cause differences in reactions to life events, such as aggression vs. emotionality (Eagly, Beall, and Sternberg, 2004). These biological differences may be the result of adaptive evolutionary mutations. Next, there are internalized gender norms, and gender is the primary social category, for which an identity is developed very early in life (Rudman and Glick, 2008). Social Role Theory (Eagly, Wood, and Diekmann, 2000) predicts that because of social roles, women and men become competent in different domains and these competencies predict decisions. Backlash explanations (Rudman and Glick, 2008) suggest that due to prescriptive gender stereotypes women and men may choose to conform to stereotypic gender norms in public for fear of social sanctions for violating norms. Finally, there is the hypothesis that men and women are more or less rational decision-makers and make decisions based on subjective

expectancies of a given outcome. How sex and gender influence any given decision/outcome may be a complicated formula containing aspects of each of these mechanisms. What we find in this research stream is that men and women may have different utility functions or risk/reward calculations for a given decision and that these may depend on whether social forces will be at play (the choice will be enacted in a public setting). Domain matters to competitive decisions. If a domain is viewed as gender congruent, one is more likely to compete in that domain owing to greater familiarity with the domain. Women are just as risk tolerant as men when making valuations for real-world risky gambles; yet, men take more risk when they believe they will be evaluated against peers of the same sex. Finally, perceptions of competence, anticipated social resources, and lowered risk perceptions are all influenced by the gender congruency of a given entrepreneurial opportunity.

Taken together this research implies that at least some of the differential we see in the representation of women in the upper echelons of power is related to the choices and decisions women make based on their own risk/reward evaluations. These evaluations may or may not be weighted accurately. We find in our research on competition that women were competing less often in areas such as math, even though there are no sex differences in performance. Valuations for

risky gambles were similar for men and women when the valuation was made on one's own subjective expectancies and was not made salient the decision would become public information. However, in sex-typed roles, feelings of competence and anticipated social resources resulted in lowered risk perceptions that may nudge decisions toward gender congruency. To overcome that nudge, the reward perceptions of the incongruent choice must more than offset the related increases in perceived risk. In short, if the representation of women at the highest levels of power and prestige is to change, more women would have to perceive attainment of those outcomes as a valuable goal with a realistic chance of success. This change would at least foster greater cross-gender representation in hierarchical tournaments, which are the pipeline leading to positions of power.

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