

Revisiting the beauty is beastly effect: examining when and why sex and attractiveness impact hiring judgments

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We contribute to the body of literature on the *what is beautiful is good* heuristic (Dion, Berscheid, & Walster, 1972, *Journal of Personality and Social Psychology*, 24, 285–290), the *beauty is beastly* effect (Heilman & Saruwatari, 1979, *Organizational Behavior and Human Performance*, 23, 360–372) and lack of fit theory (Heilman, 1983, *Research in Organizational Behavior*, 5, 269–298) by reconciling previous discrepancies in the literature and by examining the circumstances in which attractiveness may and may not be detrimental for female job applicants. First, we perform a review of studies which have previously tested the *beauty is beastly* effect, and we provide and test explanations for previous discrepancies in the literature. Next, we conduct two new studies on the *beauty is beastly* effect using corporate types of jobs, and empirically test Heilman's lack of fit theory (1983) as an explanation for the effect. We find support for the effect in a general population sample, and partial support for the effect in a sample of human resource professionals. We also provide support for a mediated moderation model showing that applicant sex is related to job suitability for a male-typed job through the indirect effect of perceived agency, which is moderated by applicant attractiveness.

Keywords: attractiveness; biases; gender; lack-of-fit; selection

One of the many challenges facing organizations today is attracting and hiring qualified employees. Despite efforts of many businesses to develop and implement non-discriminatory employment policies, there are still many ways that discrimination and implicit biases can affect the hiring process. For instance, the positive influence of applicants' physical attractiveness on hiring decisions – or the *what is beautiful is good* heuristic – is well established (Agthe, Spörrle, & Maner, 2010; Dion et al., 1972; Hosoda, Stone-Romero, & Coats, 2003; Stone, Stone, & Dipboye, 1992). Studies have consistently found that more attractive individuals are believed to be more highly qualified (Dipboye, Fromkin, & Wiback, 1975; Quereshi & Kay, 1986); they obtain more favorable hiring recommendations (Gilmore, Beehr, & Love, 1986); and they receive higher compensation (Frieze, Olson, & Russell, 1991) than less attractive individuals. However, other research has revealed that in certain hiring contexts, beauty can be detrimental – rather than beneficial – for female job applicants. This effect is called the *beauty is beastly* effect.

With the increased use of social media sites like Facebook and LinkedIn – which often display photographs of job applicants – the implicit attractiveness and gender-related biases of hiring decision-makers may play an even larger role in hiring discrimination today than in the past. Studies conducted by career and social media organizations show that in 2008, 45% of hiring managers used social media sites such as LinkedIn and

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Facebook to research job applicants (Grasz, 2009). This number increased to close to 70% in 2012 when taking into account all human resource (HR) professionals and recruiters using these sites to screen job applicants (Jobvite, 2010). While there are federal regulations which prohibit employment discrimination based on race, color, religion, sex and national origin (Title VII of the Civil Rights Act of 1964), age (Age Discrimination in Employment Act of 1967) and disabilities (Americans with Disabilities Act of 1990), there are none which protect employees from discrimination based on biases related to applicants' physical attractiveness or appearance. Thus, research on when and why attractiveness may play a role in hiring decisions is timely and important.

Heilman and Saruwatari (1979) and Heilman and Stopeck (1985) were the first to witness this *beauty is beastly* effect. They found that when attractive women apply for male-typed or managerial jobs, they are seen as less hireable and as less likely to be promoted than less attractive women, and male applicants of any level of attractiveness. They propose that this effect takes place because of a perceived lack of fit, in which attractive women are seen as lacking the masculine characteristics needed for the job, and thus they are perceived as not suited for masculine kinds of jobs, including upper-level leadership positions (Heilman, 1983). Yet, this theoretical mechanism of perceived masculinity/agency has never been examined in tests of the *beauty is beastly* effect. As such, in the current research, we test a moderated mediation model in order to understand how perceived agency may mediate the relationship between applicant gender and job suitability, based on the attractiveness of the applicant.

Despite the original evidence of the *beauty is beastly* effect (Heilman & Saruwatari, 1979; Heilman & Stopeck, 1985), there are a number of studies which have not found support for this unique effect. The majority of research on attractiveness, sex, and job suitability has found support for the *what is beautiful is good* effect rather than for the *beauty is beastly* effect (Hosoda et al., 2003). Additionally, support for the *beauty is beastly* effect has been inconsistent in the past, and very little research has been conducted since the early 1990s which has examined the effect. As such, another contribution of the current research is to provide empirical support explaining why some previous studies did support the effect, while others did not, based on proposed boundary conditions.

A first attempt to understand what may have led to inconsistencies in the literature on the influences of applicant attractiveness and sex on selection decisions was made by Johnson, Podratz, Dipboye, and Gibbons (2010). They examined job suitability perceptions for men and women being evaluated for a variety of extremely sex-typed jobs (i.e. prison guard, car salesperson, secretary, or social worker) in simulated hiring situations. In two studies using student samples, they found an important caveat to the *beauty is beastly* effect. The effect appears to be limited to only those situations in which attractive women are applying for male sex-typed jobs for which physical appearance is perceived to be unimportant for the position. We build upon their study by testing these boundary conditions through reviewing the discrepant findings in the literature on the *beauty is beastly* effect.

As such, we are able to provide empirical data explaining why some previous studies did support the effect, while others did not, based on these boundary conditions. We also expand upon their study by examining widely generalizable, corporate jobs that are male and female typed. It is important to examine the role of gender and attractiveness for corporate jobs given the leadership labyrinth paradigm (Eagly & Carli, 2007) which explains that women may be under-represented in top leadership positions due to barriers and obstacles all throughout their careers, rather than just at the top (at the glass ceiling).

As such, we test for the *beauty is beastly* effect for lower-level and senior-level positions in HRs and information technology (IT) functions. Additionally, we include two unique samples – a general population sample, and a sample of HR professionals and hiring managers.

This study makes a number of other empirical and theoretical contributions. In order to explain the discrepancies in the literature regarding the *beauty is beastly* effect, we conduct a pilot study to examine the extent to which the jobs used in previous studies meet the boundary conditions proposed by Johnson et al. (2010). In addition, we conduct two new tests of the *beauty is beastly* effect that take into account these boundary conditions. Finally, while Heilman's (1983) lack of fit model has been used in the past as the primary theory explaining the *beauty is beastly* effect, to our knowledge an empirical model supporting the key relationships has never been tested. We empirically test this theory by examining a mediated moderation model whereby sex of the job applicant leads to job suitability for a male-typed job through perceived agency of the job applicant, which is moderated by the attractiveness of the job applicant.

Theoretical background and hypotheses

The lack of fit model argues that as the perceived lack of fit between an individual's characteristics and the requirements of the job increases, so does the expectation of the individual's failure on the job (Heilman, 1983). This theory can be particularly important for understanding women's under-representation in certain professional fields, and in elite leadership positions. Although women in the USA account for almost 50% of managerial and professional positions (US Bureau of Labor Statistics, 2011), they are dramatically underrepresented in fields that are male-typed in nature, and in the highest leadership positions. For example, in the IT profession, recent estimates suggest that women make up 25% of IT professionals in the USA (US Bureau of Labor Statistics, 2014), and only 9% of IT leadership positions (The National Center for Women & Technology, 2009). This is consistent with research on gender stereotypes and perceptions of women's 'lack of fit' in certain roles.

Gender stereotypes are categorical beliefs regarding the traits and characteristics attributed to individuals on the basis of their sex category. Typically, women are stereotyped as less agentic and men as more agentic. Agentic characteristics include being aggressive, ambitious, independent, assertive, self-confident, and having analytic abilities. Agentic characteristics have traditionally been aligned with male-typed job roles and leadership positions (Eagly, 1987; Eagly & Karau, 2002). Attractiveness has been shown to exaggerate the use of gender-related personality stereotypes (e.g. Gillen, 1981; Heilman & Saruwatari, 1979; Heilman & Stopeck, 1985) such that when women are particularly attractive, this may highlight their femininity, which may re-enforce the stereotype that women will not display the agentic characteristics needed for male-typed jobs, leading to a perceived 'lack of fit' in the eyes of hiring decision-makers. Previous studies have shown that attractive women were rated as more feminine while unattractive women were rated as less feminine (Costrich, Feinstein, Kidder, Marecek, & Pascale, 1975; Drogosz & Levy, 1996; Heilman, 2001; Jackson & Cash, 1985), and that attractiveness tends to enhance perceptions of men's masculinity (Scheib, Gangestad, & Thornhill, 1999).

Yet, it is also important to consider the type of job for which applicants are being evaluated. The role of lack of fit perceptions in the assessment of male and female job applicants may be based on the sex-typing of the job (Lyness & Heilman, 2006). Jobs are considered to be sex-typed as *male* or *female* based on the sex composition of typical job-holders (Cejka & Eagly, 1999; Krefting, Berger, & Wallace, 1978). Based on these

arguments, as the masculinity of the job increases, and as women's attractiveness increases, their 'lack of fit' in the eyes of hiring decision-makers is likely to increase as well. The opposite is likely to occur for men – attractiveness increases perceptions of their agency – and suitability for male-typed jobs. However, for female-typed jobs, we are unlikely to see the same effect given women's 'fit' with these types of jobs. Thus, in the current research, we aim to examine the effects of job applicants' attractiveness and sex on perceptions of their job suitability for male- and female-typed jobs. Due to the specific types of jobs included in this research (manipulated to vary in sex type and importance of attractiveness), we do not examine the main effects (i.e. the effect of applicant attractiveness on perceptions of their job suitability); rather we examine interactions relevant to how applicants' sex, attractiveness and job type influence job suitability perceptions.

Hypothesis 1a: Attractiveness, sex and job sex-type will interact such that attractiveness will enhance perceptions of men's job suitability when applying to male-typed jobs, and it will reduce perceptions of women's job suitability when applying to male-typed jobs. This effect will not be supported for female-typed jobs.

Additionally, based on lack of fit theory (Heilman, 1983), perceptions of job applicants' suitability for jobs may depend on how important attractiveness is for the particular position (Gilmore et al., 1986). When it comes to television actors, chief executives, or salespersons for example, physical attractiveness is relatively important to success on the job. For other jobs, such as mechanic, clerk, or accountant, it may be seen as unnecessary. The importance of physical attractiveness to a given job is likely to influence the effect of a job applicant's attractiveness on perceptions of their employment suitability. If physical attractiveness is seen as important to performing the job, then one's level of physical attractiveness should be more strongly related to perceptions of employment suitability. However, this effect is likely to depend on the sex of the applicant, as well as the kind of job they are applying for (i.e. male-typed or female-typed). According to the lack of fit theory, an attractive woman may be seen as suitable for a male-typed job in which attractiveness is important because despite being female, she does have a characteristic needed for the job – being attractive. Whereas, an attractive female would likely be seen as lacking fit for a male-typed job in which attractiveness is not important for success.

Hypothesis 1b: Attractiveness, sex and importance of attractiveness for the job will interact such that attractiveness will enhance perceptions of men's job suitability, and reduce perceptions of women's job suitability when applying to male-typed jobs in which attractiveness is not important for the job. This effect will not be supported for male-typed jobs in which attractiveness is important for the job.

According to the lack of fit model, it follows that attractiveness will be a hindrance for women applying for stereotypically masculine jobs in which attractiveness is not important to the position because (a) more attractive women are seen as possessing less agency (or masculinity) than less attractive women, (b) stereotypically masculine traits are assumed to be a requisite for success in male-typed jobs and, thus, (c) attractive women are viewed as not being suitable for male-typed jobs because they are perceived to lack the masculine characteristics needed for success. Based on this line of reasoning, we hypothesize that the effects of applicants' sex on perceived job suitability for male-typed jobs may be mediated by the perceived agency of the applicant. The relationship between

sex and agency may be moderated by attractiveness such that for attractive men, the relationship between sex and perceived agency will be stronger and more positive, whereas for attractive women, the relationship between sex and their perceived agency will be weaker and more negative.

Some research has been conducted which examines the effect of perceived masculinity, femininity and applicants' sex on perceptions of employment suitability. Jackson (1983) manipulated applicants' sex and gender-related characteristics, as well as job type (masculine, feminine and neutral). Characteristics of the applicant and sex-type of the job interacted to influence employment suitability such that masculine and androgynous individuals were seen as more suitable for masculine sex-typed jobs than feminine individuals. Feminine and androgynous individuals were seen as more suitable for feminine and neutral sex-typed jobs than masculine individuals. However, this research did not include the applicants' attractiveness as a predictor of their perceived agentic characteristics, which may be critical to the hiring decision-making process. Thus, we apply a mediated moderation analysis to test our conceptual model depicted in Figure 1.

- Hypothesis 2: Being female will be negatively related to job suitability for male-typed jobs.
- Hypothesis 3: Perceived agency will be positively related to perceptions of job suitability for male-typed jobs.
- Hypothesis 4: Attractiveness will moderate the relationship between sex and perceived agency such that the relationship will be stronger for attractive men and unattractive women, and weaker for more attractive women.
- Hypothesis 5: Sex will be related to perceived job suitability for male-typed jobs, through the indirect effect of perceived agency. This relationship will be moderated by attractiveness such that it will be positive for more attractive men and negative for more attractive women.

Discrepancies in the literature

As mentioned above, following the discovery of the beauty and beastly effect by Heilman and Saruwatari (1979) and Heilman and Stopeck (1985), subsequent support for the *beauty is beastly* effect has been inconsistent. Johnson et al. (2010) proposed and found support for the notion that the effect should be limited to situations in which attractive women are applying for male sex-typed jobs for which physical appearance is perceived to be unimportant for the position. These boundary conditions are theoretically consistent with Heilman's lack of fit theory Heilman (1983) which states that 'occupational sex bias is a result of an incongruity between one's perceived skills and attributes, which are associated

Hypothesized model

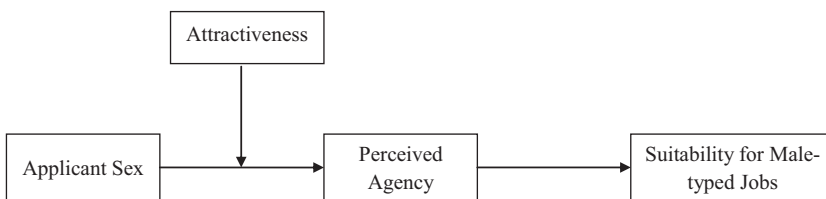


Figure 1. Hypothesized model.

with sex, and the perceived nature of the job's requirements' (Heilman, 1983; Heilman & Saruwatari, 1979, p. 203). If an attractive woman is applying for a male sex-typed job, for which physical attractiveness is important, then she *may not fit* in terms of her femininity, but she *would fit* in terms of her attractiveness. If physical appearance is unimportant to the job, an attractive woman would fit less well than if physical appearance were important to the job. In order to explain the discrepancies in the literature regarding the *beauty is beastly* effect, we conduct a pilot study to examine the extent to which the jobs used in previous studies meet the boundary conditions proposed by Johnson et al. (2010).

Pilot study to understand discrepancies in the literature

Our first step to understand inconsistencies in the literature regarding the *beauty is beastly* effect was to conduct an exhaustive literature search for any studies that reported testing the effects of 'sex' or 'gender' and 'attractiveness', 'appearance' or 'beauty' on 'personnel', 'hiring' or 'selection' decisions. We gathered all job titles and descriptions from articles which supported either the *what is beautiful is good* heuristic (Cash & Kilcullen, 1985; Croxton, Van Rensselaer, Dutton, & Ellis, 1989; Dipboye, Arvey, & Terpstra, 1977; Dipboye et al., 1975; Drogosz & Levy, 1996; Marlowe, Schneider, & Nelson, 1996) or the *beauty is beastly* effect (Heilman & Saruwatari, 1979; Heilman & Stopeck, 1985; Johnson et al., 2010). We argue that the studies which found support for the *what is beautiful is good* heuristic rather than the *beauty is beastly* effect did so for one of two reasons: (1) they did not examine the effect for jobs considered to be male-typed or (2) they did not examine the effect for male-typed jobs in which attractiveness is not important for success. Heilman (1983) suggests that one way to conceptualize job sex-type is the percentage of men and women occupying that job. Thus, we included the job titles and job descriptions from these studies in a pilot survey which asked participants to assess how important attractiveness is for each job and to assess the percentages of men and women that they believe make up each job.

Participants

Participants were 77 US citizens (36 males, 41 females) ranging in age between 18 and 34 who were undergraduate business students at a large university in the southeast. Forty eight percent of the participants were employed 32 or more hours a week. The self-reported ethnicity of the sample was 91% Caucasian, 5% African-American, and 4% other.

Job ratings

Participants rated 28 job titles and descriptions on their sex-type and importance of physical attractiveness for job success using the methods suggested by Krefting et al. (1978). In addition to the job titles gathered from previous studies, we also included some corporate types of job titles in order to select jobs to include in Studies 1 and 2 (described below). To assess job sex type, participants estimated the percentage of job incumbents for each job that are made up of men and women as recommended by Heilman (1983), and consistent with Johnson et al. (2010). For the ratings of the importance of physical attractiveness to the job, participants responded to the question, 'How important is the attractiveness of the employee for this position?' on a scale of 1 (not at all important) to 5 (extremely important). Table 1 includes the 28 job titles, the author names associated with

Table 1. Examination of job titles and descriptions.

Job titles	Study	Support BiB?	Measure	Pilot ratings of job titles	
				% Male	Imp of attractiveness
Garbage Collector ^a	Croxton et al. (1989)	No ^a	1	Male 86.83	Low 1.29
Prison Guard	Johnson et al. (2010)	Yes	1	Male 85.57	Low 1.65
Hardware Clerk ^b	Cash, Gillen, and Burns (1977)	No ^b	1	Male 79.81	Low 2.04
Mayor ^a	Croxton et al. (1989)	No ^a	1	Male 76.95	High 3.70
Police Officer	Drogosz and Levy (1996)	No	2	Male 75.19	Low 2.03
Automobile Salesperson ^b	Cash et al. (1977)	Yes ^b	1	Male 74.45	High 3.42
Senior VP of Finance	Marlowe et al. (1996)	No	1	Male 73.04	High 3.10
Senior VP of Computer/IT	New for pilot study	Should not	1	Male 72.39	High 3.07
<i>Computer and IT Specialist</i>	<i>New for pilot study</i>	<i>Should</i>	<i>1</i>	<i>Male 68.36</i>	<i>Low 2.07</i>
Factory Worker ^a	Croxton et al. (1989)	No ^a	1	Male 67.92	Low 1.62
Senior VP of HRs	New for pilot study	Should not	1	Male 67.82	High 3.39
Manager of Computer/IT	New for pilot study	Should	1	Male 66.38	Low 2.55
Trainee in Management	Heilman and Stopeck (1985)	Yes	1	Male 59.71	Low 2.70
Trainee in Sales Management	Dipboye et al. (1977)	No	1	Male 59.61	High 3.16
Manager, Claims Department	Heilman and Saruwatari (1979)	Yes	1	Male 59.12	Low 2.64
Head of Furniture Department	Dipboye et al. (1975)/Cash and Kilcullen (1985)	No	1/1	Male 58.65	High 3.09
Manager of HRs	New for pilot study	Should not	1	Male 55.17	High 3.01
Non-Manager, Claims Department	Heilman and Saruwatari (1979)	No	1	Female 50.87	Low 2.04
TV Newsperson	Croxton et al. (1989)	No	1	Female 50.64	High 4.29
Journalist	Drogosz and Levy (1996)	No	2	Female 50.23	Low 2.67
<i>HRs Specialist</i>	<i>New for pilot study</i>	<i>Should not</i>	<i>1</i>	<i>Female 48.70</i>	<i>Low 2.70</i>
Telephone Operator	Cash et al. (1977)	No	1	Female 39.82	Low 1.37
Social Worker	Johnson et al. (2010)	No	1	Female 36.97	Low 2.38
Nurse	Croxton et al. (1989)/Drogosz and Levy (1996)	No	1/2	Female 24.48	High 2.75
Secretary	Johnson et al. (2010)	No	1	Female 18.27	High 3.36
Receptionist	Cash et al. (1977)	No	1	Female 17.92	High 3.40
Beautician	Croxton et al. (1989)	No	1	Female 17.19	High 3.97

Notes: $N = 77$. Jobs used in study 1 are italicized; jobs used in study 2 are in bold type. Measurement type was reported in each study, and coded for as: 1 = fit/suitability, 2 = expected performance.

^aThe Croxton et al. (1989) study did not find support for the beauty is beauty effect; however, they did not examine the jobs of mayor, garbage collector, and factory worker separately; thus, it is unclear whether or not they would have found support for the effect had they tested it using only the garbage collector and factory worker jobs.

^bThe Cash et al. (1977) study found support for the beauty is beauty effect, yet the study combined the ratings for both the hardware clerk and automobile salesperson, and thus it unclear how each specific job may have contributed to the observed beauty is beauty effect.

previous studies of the *beauty is beastly* effect, along with the mean ratings importance of physical appearance ($ICC = .90$), and sex-type for each of the 28 jobs ($ICC = .61$).

Consistent with previous research (i.e. Johnson et al., 2010), we categorized jobs that were said to have more than 50% men in them as male-typed, and jobs with fewer than 50% men as female-typed. Also consistent with methods adopted by Johnson et al. (2010), for the ratings of importance of attractiveness, the jobs that fell above the mean of importance of attractiveness ($M = 2.71$) were considered jobs for which attractiveness is important. The jobs below the mean were considered jobs for which attractiveness is unimportant.

Results and discussion

Our pilot study of these job titles provides support for our arguments regarding the relevance of boundary conditions in explaining discrepancies in the literature. We found that the studies which found support for the *beauty is beastly* effect (Heilman & Saruwatari, 1979; Heilman & Stopeck, 1985; Johnson et al., 2010) included jobs that our participants considered to be male-typed and ones in which attractiveness was seen as not important for the position (i.e. management of claims department, trainee in management, prison guard). Additionally, a study that accurately manipulated the job types, but that only measured applicants' expected performance, rather than their expected fit, job suitability and performance, did not find support for the effect (Drogosz & Levy, 1996). Perceptions of suitability or fit are more likely to reflect the biases individuals may possess based on Heilman's lack of *fit* theory Heilman (1983), than are perceptions of an applicant's performance alone. To enhance brevity, all results are displayed in Table 1.

In our new tests of the *beauty is beastly* effect, we used data from our pilot study to include jobs which vary in their sex-type (male vs. female) and in how important attractiveness is for the job (low vs. high). Two studies were conducted to test our hypotheses using the boundary conditions presented earlier. Both studies used simulated hiring vignettes and fictitious job applicants to assess the effect of applicant sex and attractiveness on job suitability perceptions for different kinds of jobs. The first study used a sample representative of the US adult population, and manipulated job sex-type by including a male-typed and a female-typed job, while controlling for the importance of attractiveness in these jobs (both were low). The second study used a sample of HR professionals and hiring managers, and manipulated the importance of attractiveness for two male-typed jobs.

Study 1

Participants and procedure

Participants were recruited by Knowledge Networks (KN) – the first online research panel that is representative of the entire US population. KN recruits panel members via random digit-dialing techniques on a sample frame consisting of the entire US' telephone and cell phone population, and via address-based sampling. Each individual has a personalized online 'home page' that lists all the surveys that were assigned to that member and have yet to be completed. The general sampling rule is to assign no more than one survey per week to members. KN operates an ongoing modest incentive program to encourage participation and create member loyalty. Members who complete surveys can enter special raffles or can be entered into special sweepstakes with both cash rewards and other prizes to be won.

The sample of participants in this study was made up of 200 men and 229 women, resulting in 429 participants. The mean age of the participants was 48.75 (SD = 17.03). Most of the participants were Caucasian ($n = 323$), although there were also 48 African-American participants, 29 Hispanic participants, and 29 participants who identified themselves as belonging to other ethnicities. The majority of the participants received a high school degree as their highest educational degree (30.8%), while 22.8% completed some college, 18.4% received a bachelor's degree, 11.1% received a master's or doctoral degree, and 9.1% received an associate's degree. The response rate was 67.4%. Post-survey stratification weights were used to adjust sample demographics to values consistent with the 2010 US Census based on the current population survey. Variables used to determine stratification weights include gender, age, race/ethnicity, geographic region in the USA, and level of education.

This study used a between-subjects design which included 2 (sex of target: male or female) \times 2 (attractiveness of target: more attractive or less attractive) \times 2 (job sex type: female or male) conditions. Each participant was told that the study was about how people form first impressions, making important decisions from little information. They viewed a photo of one person named either Diane (for female) or David (for male). They were asked to evaluate the applicant for one type of job (IT or HR), and were provided with a description of the job. These job descriptions were adapted from descriptions listed on the [US Department of Labor's Occupational Information Network \(O*NET\)](#). They were also provided with a brief resume of the applicant that included information about the applicants' educational and work background. Additionally, participants were told that that job applicant 'has completed a preliminary interview for this position, in which she/he scored well' (this statement and the resume were the same for each target). The information was presented in a randomized order for each participant.

Experimental manipulations

Sex and attractiveness

To accurately manipulate the attractiveness of job applicants included in this study, we pilot-tested 40 photographs. Participants for this pilot study were recruited via the authors' personal and professional networks, resulting in 48 judges (19 males and 29 females) who were working in a variety of industries including education, technology, finance, manufacturing, government, and healthcare. Most of them received a high school degree as their highest level of education (41.7%), with 28.5% receiving a master's degree or higher and the rest receiving some college or a bachelor's degree. They ranged in age from 20 to 64. They were asked to evaluate 20 male photographs and 20 female photographs on a scale ranging from 1 (*not attractive at all*) to 9 (*very attractive*). To control for other demographic information, the people shown in the photographs had the following characteristics: 35–45 years of age; dressed in business attire; not wearing glasses; Caucasian; face of average size and shape; smiling; for males, no beard or mustache. The people in the photos were also assessed on their perceived intelligence, education, and age in order to make sure that the selected photos were similar on as many dimensions as possible (except attractiveness) to avoid contaminating our manipulation. There were non-significant mean differences between the more and less attractive photos of male and female on each of these variables. Based on these ratings, four photographs (two of men and two of women) were selected. For the attractive photos, the mean attractiveness rating for the photo of the woman was 7.22 (SD = .90) and the mean for the photo of the man was 6.73 (SD = 1.18). For the unattractive photos, the mean attractiveness rating for the

photo of the woman was 3.19 (SD = 1.48) and the mean for the photo of the man was 3.95 (SD = 1.78). There was an adequate level of agreement between raters (ICC = .94). The attractiveness scores were a bit higher (lower) for the female than male photos for the attractive (unattractive) condition. This is consistent with other research in this area, showing that observers tend to exaggerate the appearance of women more than men (i.e. Johnson et al., 2010; Marlowe et al., 1996). Sex and attractiveness of the target were manipulated via these photos.

Job sex-type

We used job scaling data from our review and analysis of job types used in previous studies (see Table 1), as well as data from the US Department of Labor Statistics (US Department of Labor Statistics, 2010) to select job types for this study. For Study 1, we identified a male-typed job for which physical attractiveness was rated as unimportant (specialist of computer and information systems) and a female-typed job for which physical attractiveness was rated as unimportant (specialist of HRs). We chose occupations which are generalizable/corporate types of jobs to expand upon previous research which has used extremely sex-typed jobs. Further, these types of jobs require similar levels of education, and accrue similar salary levels (US Department of Labor Statistics, 2010). The male-typed job (computer/ IT) is made up of approximately 70% males, while the female-typed job (HRs) is made up of approximately 70% females (US Department of Labor Statistics, 2010). A job description for each position was included in the survey for each participant. These job descriptions were adapted from the US Department of Labor's Occupational Information Network (O*NET).

Measures

Agency

The gender stereotypical personality characteristics of agency were measured using a scale adapted from a study by Duehr and Bono (2006). Duehr and Bono (2006) included agentic adjectives with both positive and negative connotations, as in Diekmann and Eagly (2000). This scale consists of seven adjectives, which we used in the current study, to reflect agentic characteristics (aggression, forcefulness, self-confidence, dominance, ambition, analytical ability and assertiveness). Participants rated how adequately they believed the target to exhibit each competency (1 = *below average*, 3 = *average*, and 5 = *above average*). A principal axis factor analysis for the agency scale generated one factor with an eigenvalue greater than one, explaining 53.4% of the variance. Item loadings ranged from .51 to .82. The scale reliability for agency was $\alpha = .85$.

Job suitability

Participants rated each job applicant on four items assessing the suitability, fit, and hireability of each applicant (1 = low to 5 = high). This scale has been used in other research examining attractiveness and job suitability (see Johnson et al., 2010). The items included, 'Overall suitability for the job; How well he/she would perform the job; How well he/she would fit in on the job; The likelihood that you would hire him/her for the job'. A rating form with the items was included adjacent to each job applicant's photo and information to ease the rating task. A principal axis factor analysis for the job suitability scale generated one factor with an eigenvalue greater than one, explaining 85.8% of the variance. Item loadings ranged from .88 to .91. The scale had a high level of internal consistency with an

average internal consistency of $\alpha = .94$. The average suitability score across the photographs and across all jobs was 3.66 (SD = .74) for study 1.

Attractiveness

The final item included in our survey asked participants to rate 'Diane' or 'David' on their overall physical attractiveness on a 9-point scale (1 = below average, 5 = average, 9 = above average). The mean attractiveness across applicants was 5.62 (SD = 1.83) for study 1. This measure of attractiveness was significantly correlated with our dichotomous measure of attractiveness derived from the pilot study of photos ($r = .62, p < .001$ for study 1). The dichotomous attractiveness variable was used for the ANOVA analyses, while a 9-point Likert scale measure of attractiveness was used for our mediated moderation analyses (as discussed below).

Control variables

We tested the models with a number of control variables, including self-reported age, sex, experience, and education. We found that the findings were unchanged when controls were included in the analysis. Following the recommendations of Becker (2005), we report the results without the control variables.

Mediated moderation analysis

To understand why the *beauty is beastly* effect takes place for women applying for male-typed jobs, we tested a mediated moderation model using a sub-sample of data from the overall sample mentioned above. For Hypotheses 2 through 5, we were interested in studying how and when the effect of attractiveness affects job suitability ratings for men and women applying to male-typed jobs. Thus, our model uses data from participants who rated an applicant's suitability for male-typed jobs only. This reduced our sample size from 429 (entire sample) to 205 (sample which rated male-typed jobs only). The model we have proposed represents a mediated moderation model; that is, the mediation effects of the applicant's agency is moderated by applicant attractiveness. To test the model, we employed the path analytic procedures of Edwards and Lambert (2007). Their approach improves upon more traditional methods for testing-mediated moderation (e.g. Baron & Kenny, 1986) by testing the direct, indirect, and total effects of the moderator variable in a nested form.

We tested three nested models. Model 1 was a mediated model where agency was treated as a mediator to the applicant sex–job suitability relationship (with attractiveness included as a predictor of suitability, similar to a control variable). Model 2 was the predicted mediated moderation model (with first-stage moderation) that included the moderating effect of attractiveness on the indirect effect of applicant sex through agency to job suitability. Model 3 is an alternative model that tests whether the moderated effect of attractiveness is actually second-stage moderation; that is, it interacts with agency rather than sex to predict job suitability. We compared nested models by computing a generalized R^2 and comparing the models with Q and W statistics (see Tepper, Henle, Lambert, Giacalone, & Duffy, 2008).

To further test Hypotheses 4 and 5, we also used an SPSS/PASW macro designed by Preacher, Rucker, and Hayes (2007). This macro facilitates the implementation of the recommended bootstrapping methods and provides a method for probing the significance

of conditional indirect effects at different values of the moderator variable. Bootstrapping has been advocated as an alternative to normal-theory tests of mediation (Preacher & Hayes, 2004).

Results and discussion

ANOVA analyses

Table 2 presents the means associated with each of our experimental conditions. There was a significant three-way interaction between sex, sex-type of job, and attractiveness $F(1, 402) = 4.20, p = .04$ (see Table 3 and Figure 2), supporting Hypothesis 1a. For a male-typed job, men were seen as more suitable than women (regardless of their attractiveness) while unattractive women were seen as much more suitable than attractive women were.

Mediated moderation analyses

Table 4 presents the means, standard deviations, and intercorrelations for all of the variables included in the mediated moderation analyses. An inspection of the correlations shows that there are significant relationships between sex of the applicant (being female) and suitability for male-typed jobs ($r = -.17, p < .05$), attractiveness of applicant and suitability for male-typed jobs ($r = .18, p < .01$), and perceived agency and suitability for

Table 2. Means and standard deviations of suitability ratings for male and female sex-typed jobs.

Applicants	Sex type of the job			
	Male (IT)		Female (HR)	
	M	SD	M	SD
<i>Male</i>				
Attractive	3.82	.78	3.75	.65
Unattractive	3.50	.62	3.72	.78
<i>Female</i>				
Attractive	3.30	.90	3.89	.63
Unattractive	3.46	.72	3.86	.67

Note: The higher the ratings, the more suitable the applicant is seen for the job.

Table 3. Analysis of variance for applicants' attractiveness and sex, and job sex-type on job suitability.

Independent variables	Between subjects				
	Df	MS	Df error	η^2	F
Target attractiveness	1	.40	402	.00	.80
Target sex	1	1.05	402	.01	2.12
Job sex-type	1	7.72	402	.04	15.65***
Job sex-type \times sex	1	4.74	402	.02	9.60***
Attractiveness \times sex	1	1.90	402	.01	3.85*
Attractiveness \times job sex-type	1	.10	402	.01	.19
Job sex-type \times sex \times attractiveness	1	2.01	402	.01	4.07*

Notes: $n = 429$. * $p < .05$; ** $p < .01$; *** $p < .001$.

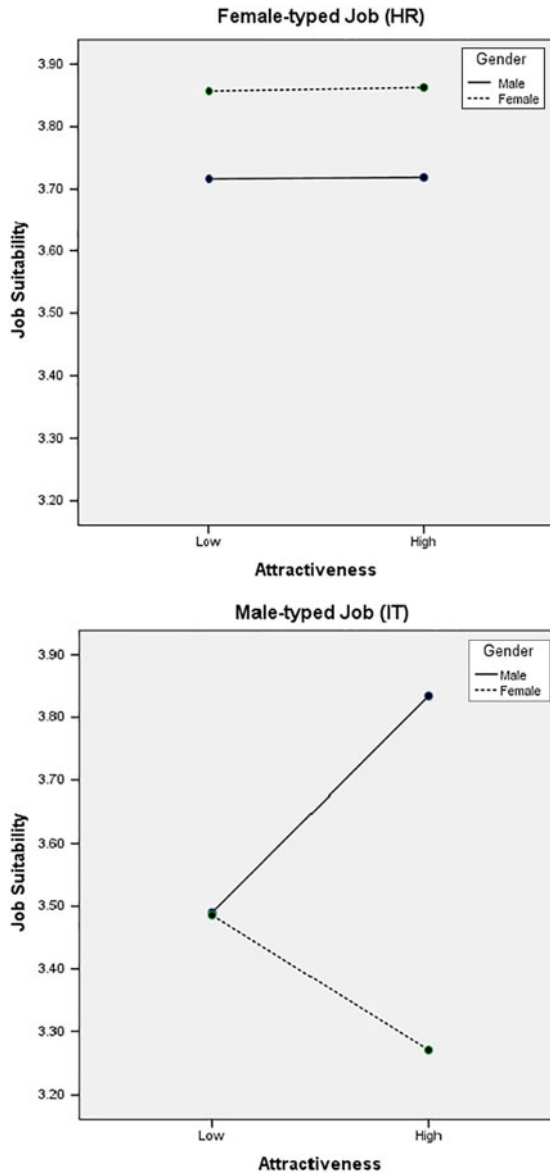


Figure 2. Interaction between sex of applicant, attractiveness, and sex-type of job from study 1.

Table 4. Descriptive statistics and variable intercorrelations for variables included in the mediated moderation analyses.

Variable	M	SD	1	2	3	4
1. Sex of applicant	.50	.50	–			
2. Attractiveness of applicant	5.60	1.95	–.05	–		
3. Agency	3.43	.53	.07	.08	–	
4. Suitability for male-typed job	3.52	.77	–.17*	.18**	.36**	–

Notes: *ns* = 210–214. Sex of applicant coded 0 = male, 1 = female. Values in bold are relevant to tests of hypotheses. **p* < .05; ***p* < .01.

Table 5. Path analytic tests of hypothesized mediated moderation model and alternative models.

<i>Path estimated</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
Sex → agency	.07	.07	.07
Sex → suitability	-.33*	-.33*	-.34*
Agency → suitability	.52*	.48*	.48*
Attractiveness → suitability	.07*	.11*	.11*
Sex × attractiveness → agency		-.13*	-.13*
Sex × attractiveness → suitability		-.08	-.08
Attractiveness × agency → suitability			-.03
R^2_{Agency}	.01	.06*	.06*
$R^2_{Suitability}$.20*	.21*	.21*
$R^2_{Generalized}$.21	.26	.26

Notes: $n = 205$. Males = 0, females = 1. Table values are path estimates for each respective model test. Model 1 is the simple mediation model (where agency is the mediator). Model 2 is the hypothesized mediated moderation model (with first stage moderation). Model 3 includes the indirect moderating effect of attractiveness (first stage and second stage moderation). * $p < .01$.

male-typed jobs ($r = .36, p < .01$). The results from each path model are displayed in Table 5. Comparisons of the models reveal that the generalized R^2 for Model 2 ($R^2_{Generalized} = .26$) was significantly different from the generalized R^2 for Model 1 ($R^2_{Generalized} = .21; Q = .94, W = 13.07, d = 1, p < .01$). This suggests that the mediated moderation model provides better fit compared to a more simple mediation model; adding the interaction between sex and attractiveness significantly increases the explained variance in agency and suitability for male-typed jobs. The generalized R^2 for Model 2 was not significantly different from the generalized R^2 for Model 3 ($R^2_{Generalized} = .26; Q = 1, W = 0, d = 1, n.s.$). This finding suggests that the inclusion of both first-stage (sex × attractiveness) and second-stage (attractiveness × agency) moderation does not add to the predictive power of the model over just including the first-stage moderation.

We then examined the path estimates for Model 2 to test the hypotheses. In Hypothesis 2, we predicted that sex (being female) would be negatively associated with job suitability for male-typed jobs; this hypothesis was indeed supported ($b = -.33, p < .01$). Similarly, consistent with Hypothesis 3, agency was significantly positively related to job suitability for male-typed jobs ($b = .48, p < .01$). Thus, both Hypotheses 2 and 3 were supported in our data. The interaction between sex and attractiveness was significantly associated with agency ($b = -.13, p < .01$), providing initial support for Hypothesis 4. Taken together, it appears that Hypothesis 5 is also supported in that the first stage moderation of sex and attractiveness on agency is significant, and the effect of agency (the mediator) on job suitability is also significant.

In addition to testing the models, we calculated the simple effects for job suitability for those high and low in attractiveness (see Table 6) using SPSS code based on modeling recommendations by Preacher et al. (2007). Taken together, the analysis of the simple effects gives further credence to our proposed mediated moderation model and thus supports Hypothesis 5, as the pattern of effects is different based on level of attractiveness. We further examined the interaction effects by graphing the interaction of sex and attractiveness of agency following procedures outlined by Edwards and Lambert (2007). As displayed in Figure 3, females who are more attractive are seen as less agentic, while males who are more attractive are seen as more agentic.

Next, we examined the conditional indirect effect of sex on perceived suitability for male-typed jobs (through perceived agency) for more and less attractive applicants (see Table 7). Normal-theory tests indicated one of the two conditional indirect effects

Table 6. Direct and indirect effects of sex on job suitability (through agency) by level of applicant attractiveness.

Path	P_{MX}	P_{YM}	Direct effects (P_{YX})	Indirect effects ($P_{YM} P_{MX}$)	Total effects ($P_{YX} + P_{YM} P_{MX}$)
<i>Suitability for male-typed job</i>					
Simple paths for those high in attractiveness (+1 SD)	.14	.34**	.07	.05	.12
Simple paths for those low in attractiveness (-1 SD)	.25*	.55**	.28*	.13*	.41**

Notes: $n = 205$. P_{MX} = path from gender to agency. P_{YM} = path from agency to suitability for a male-typed job. P_{YX} = path from gender to suitability for a male-typed job. * $p < .05$, ** $p < .01$.

(based on the mean values of each level of attractiveness) was positive and significantly different from zero. Bootstrap confidence intervals corroborated these results. Thus, Hypothesis 5 was partially supported, such that the indirect effect of sex on job suitability through perceived agency was positive and significant for less attractive applicants, but was only marginally significant for more attractive applicants.

The data from Study 1 tested the *beauty is beastly* effect using two jobs which varied in their sex-typing (male and female), but were consistent in how important attractiveness is for the jobs (low). As hypothesized, the *beauty is beastly* effect was seen for the male-typed job, and not for the female-typed job. Using a sample of members of the general population as participants, we found support for the mediated moderation model which tested the lack of fit theory. It seems that attractive women were seen as less suited for the male-typed job than were men or less attractive women, because they were seen as lacking the agentic characteristics typically associated with male-typed jobs. Attractiveness seemed to reduce perceptions of female applicant’s agency, while increasing perceptions of male applicant’s agency.

There are some limitations with our data that must be considered when interpreting them. The data were collected using a general US sample. Thus, it is uncertain as to whether these effects would also be seen if using HR professionals and others who do

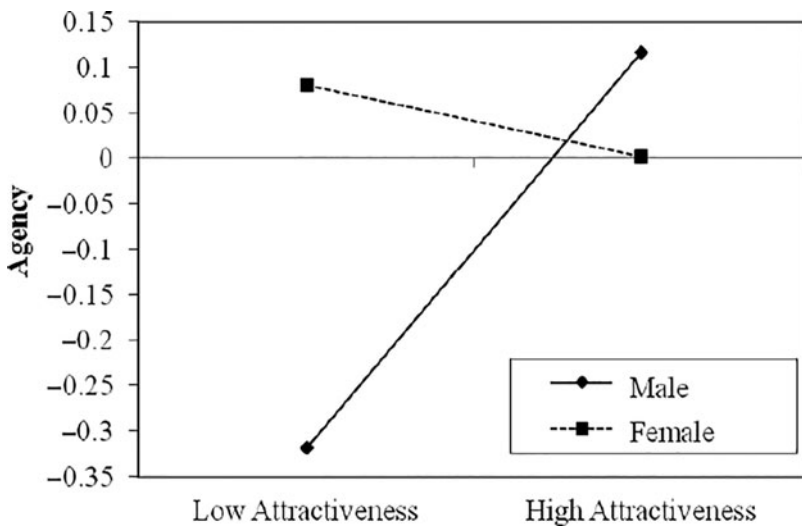


Figure 3. Stage 1 moderation: interaction of sex and attractiveness on agency from study 1.

Table 7. Regression results for conditional indirect effect of sex on job suitability through agency.

Predictor	B	SE	t	p
<i>Perceived agency</i>				
Constant	2.52	.35	7.13	.00
Attractiveness	.08	.03	3.01	.00
Sex	.81	.22	3.69	.00
Attractiveness × sex	−.13	.04	−3.59	.00
<i>Job suitability for male-typed jobs</i>				
Constant	2.21	.53	4.11	.00
Perceived agency	.47	.09	4.93	.00
Attractiveness	.10	.04	2.83	.01
Sex	.21	.31	.69	.48
Attractiveness × sex	−.09	.05	−1.86	.06
Gender	Boot indirect effect	Boot SE	Boot z	Boot p
<i>Conditional indirect effect at attractiveness = M ± 1 SD</i>				
−1 SD (3.65)	.15	.06	2.65	.01
Mean (5.59)	.03	.04	.93	.35
+1 SD (7.53)	−.09	.05	−1.73	.08
Sex ^a	Boot indirect effect	Boot SE	Boot z	Boot p
<i>Conditional indirect effect at range of values of attractiveness</i>				
1.00	.32	.11	2.91	.00
1.80	.27	.09	2.88	.00
2.60	.22	.08	2.86	.00
3.40	.17	.08	2.83	.00
4.20	.12	.05	2.44	.01
5.00	.07	.04	1.80	.07
5.80	.02	.03	.55	.58
6.60	−.03	.04	−.80	.43
7.40	−.08	.05	−1.64	.10
8.20	−.13	.06	−2.08	.04
9.00	−.18	.08	−2.31	.02

Notes: n = 205. Unstandardized regression coefficients are reported. 0 = male, 1 = female. Bootstrap sample size = 5000.

^aRange of values represent an abbreviated version of the output provided by the macro.

hiring and recruiting as a part of their typical job (Luxen & van de Vijver, 2006). Additionally, we did not manipulate the importance of attractiveness for the jobs. In order to more comprehensively test the boundary conditions of the *beauty is beastly* effect, we conducted a second study which uses the same male-typed job as study 1 (IT) but manipulates the importance of attractiveness for the job, by using one job in which attractiveness is seen as less important (the management level), and one job in which attractiveness is seen as more important [the senior vice president (SVP) level].

Study 2

Participants and procedure

Participants were recruited through the Career Center at the second authors' institution. The Career Center sent an email invitation to corporate recruiters who are actively involved with the University's Career Center. The invitation and survey link asked

participant's to opt out of participating if their position did not currently involve recruiting and screening job applicants. Respondents completed the survey online. The sample of participants in this study was made up of 48 men, 95 women and 23 participants who did not report their sex, resulting in 166 participants. The mean age of the participants was 43.75 (SD = 11.17). The average number of years working as a recruiter or HR professional was 12.19 (SD = 9.3). Most of the participants were Caucasian ($n = 114$), although there were also 20 African American participants, and 32 participants who identified themselves as belonging to other ethnicities. The majority of the participants were directors of HR (18.1%), recruiters (16.8%), managers of staffing (14.2%) or HR generalists (12.3%). The remaining 38.6% were hiring managers, HR consultants or vice presidents/corporate officers of HR.

This study used a within- and between-subjects design in which each person reviewed four job applicants for a job as either the manager or SVP of Computer and IT because the more typical selection situation is one where the hiring decision-maker is presented with more than one applicant at a time. Since our sample for study 2 consisted of employees who make hiring decisions on a regular basis, we aimed to make our study as consistent with their usual hiring settings as possible. To further simulate the scenario whereby a recruiter pre-screens an applicant on a social media site, each participant viewed a photo, brief description and resume of one target at a time. Each resume profile was similar to profiles seen on LinkedIn, and included a photo, followed by a summary paragraph explaining the applicant's work history, interests and competencies related to IT. These paragraphs were based off of real IT professionals resume summaries, and included information differentiating the competencies needed for a manager versus SVP role.

The profiles also listed information about the target's educational and work background [graduated from either Emory or Duke; computer science bachelor's degree; worked for a few fictional companies in their IT units; started as specialist/engineer, and moved up to either a lead specialist/senior engineer (for manager job) or to a director/senior manager of IT (for SVP job), spent 15 years in the industry] in addition to how well the target scored in pre-employment assessments for this position (this statement was the same for each target). These profiles were reviewed by eight organizational psychology doctoral students and researchers, who were provided with background reading on the field of IT, sample job descriptions, and sample tasks/competencies listed on the [US Department of Labor's Occupational Information Network \(O*NET\)](#). Most of the doctoral students and researchers who reviewed these profiles were actively engaged in HR and selection-related internships, consulting projects and research. The profiles were edited based on feedback until they were considered to be equivalent (yet reasonably distinct) by these reviewers. Next, the participants read a job description for the job they were evaluating the targets for (either manager or SVP of IT). These job descriptions were adapted from descriptions listed on O*NET. The manager of IT position was described as level 9 out of 21, while the SVP position was described as level 18 out of 21. Next, participants were asked to rate each person for their suitability in a position as either a Manager or SVP of IT. They were also asked to assess each applicant on a number of competencies (agency), as well as their attractiveness.

Experimental manipulations

Sex and attractiveness

Applicant sex and attractiveness were manipulated using the same photos selected for study 1.

Importance of attractiveness

We continued to use the computer and information systems position from Study 1 as the male-typed job for Study 2. We manipulated the importance of attractiveness for each position by choosing two levels of this job which our pilot study showed differed on importance of attractiveness (low importance:manager = 2.55; high importance: SVP = 3.07, see Table 1). We believe that the *beauty is beastly* effect would only be seen for the male-typed job in which attractiveness is not important for success.

Measures

Agency

The same measure from Study 1 was used in Study 2. The reliability was $\alpha = .86$ for study 2.

Job suitability

The same measure from Study 1 was used in Study 2. The reliability was $\alpha = .93$ for study 2. The average suitability score across the photographs and across all jobs was 3.67 (SD = .74) for study 2.

Attractiveness

The same measure from Study 1 was used in Study 2. The mean attractiveness across applicants was 5.99 (SD = 1.66) for study 2. This measure of attractiveness was significantly correlated with our categorical measure of attractiveness derived from the pilot study of photos ($r = .61, p < .001$ for study 2).

Results and discussion

ANOVA analyses

Table 8 presents the means associated with each of our experimental conditions. We found a significant main effect of applicant sex, $F(1, 307) = 4.07, p < .05$, such that the female job applicants were seen as more suited for both kinds of jobs than were male applicants (Table 9). There was a marginally significant three-way interaction between applicant sex,

Table 8. Means and standard deviations of suitability ratings for male-typed jobs low and high in importance of attractiveness.

<i>Applicants</i>	<i>Importance of attractiveness for job success</i>			
	<i>Low</i>		<i>High</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Male</i>				
Attractive	3.71	.77	3.58	.71
Unattractive	3.60	.73	3.52	.83
<i>Female</i>				
Attractive	3.73	.65	3.76	.68
Unattractive	3.85	.63	3.54	.83

Note: The higher the ratings, the more suitable the applicant is seen for the job.

Table 9. Analysis of variance for applicants' attractiveness and sex, and job importance of attractiveness type.

	Within subjects				
	Df	MS	Df error	η^2	F
<i>Independent variables</i>					
Target attractiveness	1	.71	612	.00	1.32
Target sex	1	2.19	612	.01	4.07*
Job importance of attractiveness type	1	2.36	612	.01	4.40*
Job IA type \times sex	1	.05	612	.00	.10
Attractiveness \times sex	1	.07	612	.00	.13
Job IA type \times attractiveness	1	.82	612	.00	1.53
Job IA type \times sex \times attractiveness	1	1.41	612	.00	2.62 [†]

Notes: $n = 309$. Job IA type = importance of attractiveness per job (0 = less important (manager), 1 = more important (senior VP)). Sex is coded as 0 = male, 1 = female. Attractiveness of applicant is coded as 0 = unattractive, 1 = attractive. * $p < .05$, [†] $p = .10$.

attractiveness, and job importance of attractiveness type $F(1, 307) = 2.62, p = .10$ (see Figure 4), providing initial support for Hypothesis 1b. Despite the marginal significance of the interaction, the pattern of effects supports the hypothesis that *beauty is beastly* for female applicants applying to jobs in which attractiveness is not important. Figure 4 shows that for the IT job with low importance of attractiveness (i.e. manager), attractiveness is beneficial for male applicants, but detrimental for female applicants. As expected, for the IT job in which attractiveness is seen as highly important (i.e. SVP), we did not see this effect. Instead, attractiveness is helpful for both male and female applicants (the *what is beautiful is good* effect).

Given that the significance associated with the hypothesized three-way interaction was only marginal in nature, we did not continue to test the lack-of-fit theory using the mediated moderation analyses described in study 1.

General discussion

We contribute to the body of literature on the *what is beautiful is good* heuristic, the *beauty is beastly* effect and lack of fit theory (Heilman, 1983) by corroborating and extending prior findings in several ways. As hypothesized, our first study found that attractiveness was detrimental for female applicants (and not male applicants) for male-typed jobs, but not female-typed jobs. Additionally, we found support for a mediated moderation model using Heilman's lack of fit theory (Heilman, 1983) to explain how applicant attractiveness and sex may interact to affect perceptions of the applicants' agency, and their subsequent suitability for male-typed jobs. Based on the theory, we argue that when women are particularly attractive, this highlights their femininity, which may re-enforce the stereotype that women will not display the agentic characteristics needed for male-typed jobs. Our study found that there was a negative and significant indirect effect of sex on job suitability through perceived agency for less attractive applicants, and a positive indirect effect for more attractive applicants. Thus, when an attractive man is being considered for a male-typed job, the person responsible for making a hiring decision may implicitly assume that the man is more agentic (and thus a better fit) than an unattractive man. The relationship was negative for women, implying that attractive women are seen as less agentic (and thus a worse fit) for male-typed jobs. This is the first study which we are

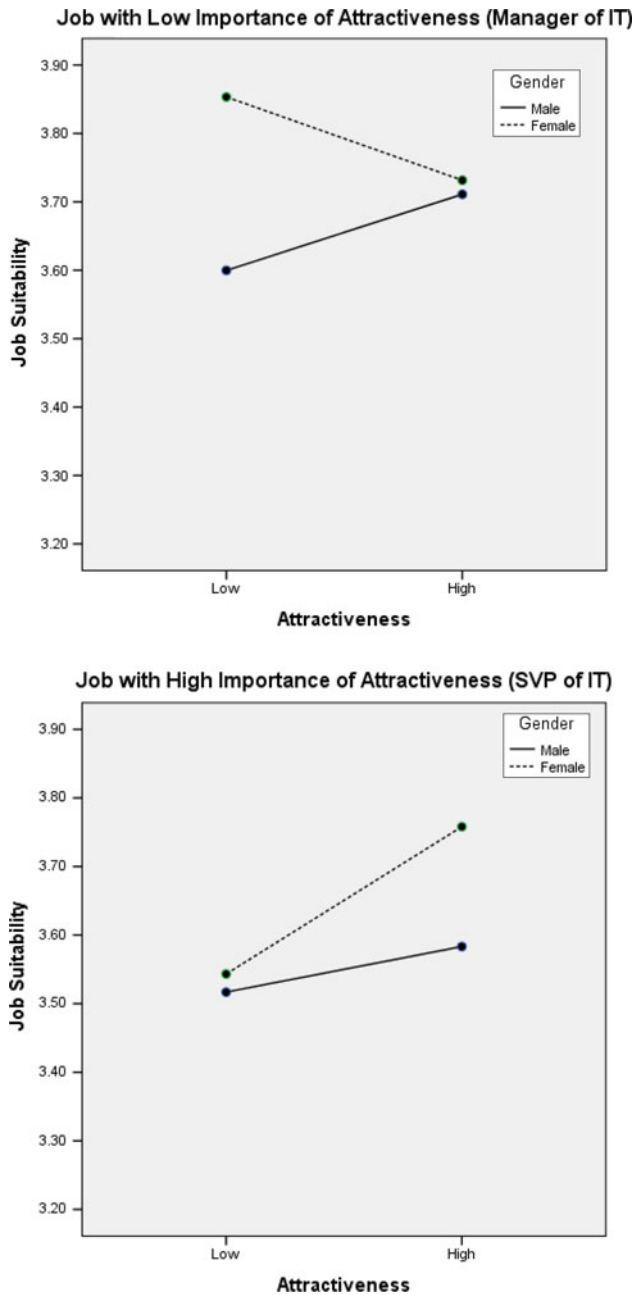


Figure 4. Interaction between sex of applicant, attractiveness, and job importance of attractiveness for study 2.

aware of that has tested a process model of the lack of fit theory to explain the *beauty is beastly* effect.

In our second study, with respondents who identified themselves as HR professionals, we found a marginally significant interaction between applicants' attractiveness, sex, and importance of attractiveness. Despite the marginal significance, the pattern of effects

suggested that attractiveness is detrimental for women applying for a male-typed job for which attractiveness is not important (IT manager). Additionally, the pattern supported the notion that when men and women apply to a male-typed job for which attractiveness is seen as important (SVP of IT), attractiveness was beneficial. From these findings, it seems that the *beauty is beastly* effect may only hold for women applying to male-typed jobs in which attractiveness is not related to success on the job. For male applicants, attractiveness was beneficial for both jobs; that is, being attractive was good whether or not attractiveness is seen as relevant to the job. Thus, we also found support for the *what is beautiful is good* paradigm. Men benefit from being attractive when the job is male-typed; women only do when attractiveness is seen as important to the job.

These findings fit with the leadership labyrinth paradigm (Eagly & Carli, 2007) which explains that women may be under-represented in top leadership positions due to barriers and obstacles all throughout their careers, rather than just at the top (at the glass ceiling). Our study shows that attractiveness may be particularly harmful for female applicants of lower-level male-typed corporate jobs (entry or manager levels) but not at higher-level positions (in which attractiveness may be important). Thus, the *beauty is beastly* effect may serve as one of those lower-level barriers some attractive women face on their way through the leadership labyrinth.

Due to the marginal support for the three-way interaction in study 2, we did not test the mediated moderation model tested in the first study. Perhaps the *beauty is beastly* effect is weaker amongst HR professionals than general members of the population, given their awareness of anti-discrimination practices which may encourage them to rely more on job-related information than cues based on sex and appearance when making hiring judgments. Interestingly, participants in our second study considered female applicants as more suited overall for male-typed jobs than male applicants. This may be due to the fact that most HR professionals are aware of anti-discrimination practices, which leads them to consciously make more gender egalitarian hiring decisions – or perhaps even decisions favoring women due to a reversal of traditional discrimination – than members of the general population. Yet, most organizations in the USA (99.7%; US Small Business Administration, FAQs, 2010) are classified as small businesses, hiring fewer than 500 employees. Such small organizations may be less likely to rely on HR professionals trained in anti-discrimination practices for making hiring decisions. As such, there is a significant proportion of the workforce that may be evaluated for hire by individuals without formal HR training, who may be more susceptible to the *beauty is beastly* bias.

Practical implications

The ability of organizations to hire the best employees for each job can be negatively affected by implicit biases of the hiring decision-makers. This may be increasingly applicable in today's workplace, since more and more hiring professionals are using sites like LinkedIn and Facebook as part of the hiring process (Grasz, 2009; Jobvite, 2010). Thus, HR professionals may be more likely to encounter photographs of applicants, leading to the activation of stereotypes and biases related to sex and attractiveness. Without training to decrease the use of social media sites in the applicant screening process, attractiveness is likely to continue to play a role in hiring and other HR decisions. Attractiveness and gender stereotypes (particularly relating to the applicants' agency) may influence decision-making at a subconscious level, so that mere exposure to an attractive or unattractive individual elicits positive or negative feelings in the decision-maker,

causing him or her to judge the target more or less favorably (Eagly, Ashmore, Makhijani, & Longo, 1991).

It is important for organizational members to understand how attractiveness and sex may interact to effect decision-makers perceptions of the applicant's agentic characteristics and suitability for the job. This may be especially critical for jobs that are particularly masculine or feminine (culturally or in sex composition). Furthermore, in situations where a decision-maker is under high cognitive load or under time pressure, he or she may be more likely to rely on implicit biases and stereotypes (Fiske & Taylor, 1991). Since there are no federal regulations in place which protect employees from discrimination based on biases related to applicants' physical attractiveness, and since few training programs exist relative to this issue, this type of discrimination may be more prevalent than others in organizations, and thus may be a significant factor negatively affecting equality and excellence in the selection context.

Limitations and future research

As with most research, there are a number of limitations to our research that are worth noting. First, only two jobs were used to manipulate the male-typed (IT) and female-typed (HR) jobs and only one photograph of a Caucasian person was used for each of our four sex/attractiveness conditions in our experimental conditions. This limits the generalizability of our findings. Thus, future research should use multiple jobs, photos and people of different ethnicities to contribute to the sex-type and attractiveness manipulations, as well as larger samples in order to more precisely assess the conditional indirect effects. Further, the data in both studies were cross-sectional and thus it is impossible to unambiguously interpret the results of our mediated moderation as indicating causality. Even though our use of the term *effects* does imply causal relationships, we acknowledge the need for more evidence before the suggested pattern of causation is defensible.

Finally, many of the effect sizes reported in this research are fairly small. Though these small effects are consistent with findings of other studies examining the beauty is beastly effect (Heilman & Stopeck, 1985; Johnson et al., 2010), some critics have suggested that such small effects are unimportant (Vecchio, 2002). However, many researchers have disagreed with this perspective, arguing that even quite small effects can have practical importance in real-life settings (see Abelson, 1985). For example, Eagly and Carli (2003, p. 825) provide an important example regarding a study examining the effects of aspirin,

the relation between taking aspirin and the prevention of heart attacks in a randomized double-blind experiment was only $r = .034$, yet this effect corresponded to 3.4% fewer people experiencing heart attacks, a drop meaningful enough to induce researchers to end the experiment prematurely because it was deemed unethical to deny the benefits of the treatment to the individuals in the control group. (Rosnow & Rosenthal, 1989)

Similarly, small biases against women in assessments of job suitability in certain contexts, when repeated over individuals and occasions, can produce large consequences in terms of women's ability to reach and succeed in these types of occupations.

A recent meta-analysis showed that the strength of the attractiveness bias may be shrinking (Hosoda et al., 2003). Yet, we found support for our hypothesis that attractiveness and sex will interact such that attractiveness will be more advantageous for men's perceived job suitability than for women's. Future research should examine the effects of sex and attractiveness on hiring decisions longitudinally, or via meta-analysis to better understand how these implicit beliefs may shift over time and hiring situations.

Disclosure statement

No potential conflict of interest was reported by the authors.

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