

Making Those Who Cannot See Look Best: Effects of Visual Resume Formatting on Ratings of Job Applicants With Blindness

Katie Wang
Rice University

Laura G. Barron
University of Wisconsin, Stout

Michelle R. Hebl
Rice University

Objective: Although general attitudes toward individuals with disabilities are often positive, these perceptions do not always lead to equal footing in the hiring process. This study examined stereotypes of job applicants perceived to be blind and the role of applicant blindness in hireability ratings made by human resource managers. Specifically, we highlighted a unique challenge for individuals who cannot see: the visual formatting of resumes. **Design:** Human resource managers ($N = 249$) evaluated the visually formatted or unformatted resumes of hypothetical job applicants who were portrayed as blind or sighted and rated applicant hireability and personality characteristics. **Results:** Although applicants perceived to be blind were perceived as more conscientious and agreeable by human resource managers, these positive evaluations did not translate into favorable hireability evaluations. **Conclusion:** Because human resource managers severely penalize applicants who do not attend to visual, nonfunctional resume presentation, applicants who cannot see are apt to find themselves disadvantaged in the hiring process. The implications of these findings for organizations, job seekers, and rehabilitation professionals are discussed.

Keywords: disability, blindness, bias, discrimination, applicant

Historically, individuals with disabilities always have been an underrepresented group in the workforce. Although the Americans With Disabilities Act of 1990 has significantly facilitated the inclusion of individuals with disabilities in the workplace, the unemployment rate is still nearly twice as high among individuals with disabilities than among the general population (Stone & Colella, 1996). Unfortunately, people with disabilities, especially those with blindness, have received very little attention in the workplace literature. The present study, therefore, aimed to contribute to this limited knowledge base by investigating the question of how individuals with blindness are perceived by prospective employers and the role that visual presentation of their credentials plays in initial evaluations of hireability.

How Do Employers Evaluate Persons Perceived To Be Blind?

Although research that specifically addresses the perceptions of visually impaired individuals is lacking, the stigmatization litera-

ture has provided substantial evidence regarding attitudes toward job applicants with other disabilities, suggesting that such perceptions are typically ambivalent. On the one hand, empirical evidence consistent with the “norm-to-be-kind” hypothesis supports the idea that individuals with blindness might receive more positive hireability evaluations than their sighted counterparts. Defined as the social pressure to act charitably toward those less fortunate (Hastorf, Northcraft, & Picciatto, 1979), the *norm-to-be-kind* governs many aspects of behavior toward people with disabilities. For example, in the laboratory, nondisabled participants consistently provide unrealistic positive feedback in response to the below-average performance of individuals with physical disabilities (Hastorf et al., 1979; Miller & Werner, 2005). Similarly, hypothetical job applicants with physical disabilities are rated higher in conscientiousness and agreeableness, as well as activity and potency relative to matched nondisabled applicants (Bell & Klein, 2001; Louvet, 2007).

On the other hand, further evidence challenges this straightforward proposition. Managers tend to hold unfounded negative expectations about the skills of workers with disabilities as well as their future performance (Jones, 1997; Ren, Paetzold, & Colella, 2008; Stone & Colella, 1996). Hence, although people may praise individuals with disabilities, such targets are less likely than a nondisabled target to be chosen as a partner on an assigned task even after previous task performance between targets with and without disabilities has been equated (Colella, DeNisi, & Varma, 1998). Similarly, although job applicants with disabilities are rated more highly than matched nondisabled applicants on many personal characteristics, applicants with disabilities are rated as less

Katie Wang and Michelle R. Hebl, Department of Psychology, Rice University; Laura G. Barron, Department of Psychology, University of Wisconsin, Stout.

Katie Wang is now at the Department of Psychology, Yale University. Katie Wang and Laura G. Barron contributed equally to this article.

Correspondence concerning this article should be addressed to Michelle R. Hebl, PhD, Rice University, 6100 Main Street, MS 205, Houston, TX 77005. E-mail: hebl@rice.edu

competent (Louvet, 2007). These ambivalent findings parallel those found for other stigmatized groups such as women: Although those in power may readily give praise to members of the disadvantaged groups, allocation of valued resources often does not accompany positive feedback (Biernat & Vescio, 2002; Vescio, Gervais, Snyder, & Hoover, 2005). One of the strengths of the current study is that we investigated both ratings of personal characteristics (praise) and direct ratings of hireability (allocation of resources).

Differences in Evaluation of Individuals With Differing Disabilities

Members of stigmatized groups are often targets of prejudice and discrimination, and reactions toward these individuals can vary significantly on the basis of the causal attributions and nature of the stigma in question (Menec & Perry, 1998; Rush, 1998). Specifically, origin (controllability) and peril have emerged as two of the most important factors in determining attitudes toward particular stigmas. On the basis of these dimensions, it is reasonable to infer that blindness, as a nonthreatening impairment with perceived uncontrollable onset, might be viewed more favorably than many other disabilities. Indeed, among the various prejudices that people seek to suppress under the pressure of social norms, prejudice toward individuals with blindness is rated as substantially less acceptable than prejudice toward other stigmatized groups, such as obese or mentally ill targets, and even less acceptable than prejudice toward typically nonstigmatized groups such as White people (Crandall, Eshleman, & O'Brien, 2002). Therefore, perceptions of individuals who are blind may represent a "best case" for individuals with disabilities.

As such, in this study we investigated whether, even for individuals with a disability for which there are particularly strong norms to be kind, positive evaluations can translate into favorable hiring outcomes. Our first objective was to determine whether applicants with blindness receive more favorable personality ratings than their sighted counterparts. We focused on the Big Five personality characteristics for comparability within the personality literature and because of the documented relationship between the Big Five traits and performance across jobs (Barrick & Mount, 1991; Hertz & Donovan, 2000). Our second objective was to determine whether these favorable personality ratings would translate into enhanced hireability ratings of applicants with blindness relative to sighted applicants.

Are Visually Appealing Resumes Beneficial to Applicants?

Although attitudes toward applicants with disabilities generally can provide a basic foundation from which to infer perceptions toward applicants with blindness, we also highlight a challenge that puts those who cannot see at a unique disadvantage: the visual formatting of resumes.¹ Resume screening is a near universal initial step in the hiring process, and job applicants' resumes may be judged on more than the content (i.e. education, experience, skills) listed. Research shows that when the content of the resumes is controlled, applicants with chronological-style resumes receive higher hireability ratings than those with functional-style resumes,

suggesting that presentation style of resumes does have a significant influence on employers' hiring evaluations (Ryland & Rosen, 1987; Toth, 1993). Building on these results, we investigated whether the visual formatting of resumes (e.g., font and page layout aesthetics) can similarly affect employers' evaluations.

Advancements in assistive technology have enabled blind individuals to perform most tasks on the computer effectively and independently using a wide range of screen-reading programs (e.g., Freedom Scientific's JAWS, Dolphin's Supernova, GW Micro's Window-Eyes), including some with integrated Braille displays. Such software programs enable users without sight to access mainstream computer applications and word processors through synthetic speech. Despite these advances, many job seekers with blindness still require some sighted assistance in preparing visually appealing resumes. Specifically, although most screen readers can identify the spacing, font, and other formatting elements, individuals who cannot see may need sighted assistance to determine what is visually attractive because they cannot actually see the document's layout. In addition, simple tasks such as visually checking that all items are aligned and indented properly can become cumbersome when relying on nonvisual means. Notably, some job applicants who cannot see might be unaware of the importance of formatting or reluctant to seek sighted assistance for fear of appearing helpless. As such, applicants with blindness may, despite equivalent qualifications, find themselves disadvantaged in the hiring process to the extent that human resource managers base their hiring judgments on visual (nonfunctional) resume presentation.

Method

Participants

To obtain a sample with real-world hiring experience, human resource managers were recruited via e-mail through the Society of Human Resource Management, the largest professional association for human resource managers worldwide. We were able to obtain contact information online for 353 of 575 local chapters in the United States, of which 22% agreed to distribute the invitation to their members, resulting in a total of 249 volunteer participants (55 men, 188 women, six unspecified) with a mean of 14.48 years ($SD = 8.38$) of working experience in a human resources capacity. Our sample included human resource managers working in all four U.S. regions: 14.1% West, 20.0% Midwest, 21.6% Northeast, and 44.3% South. The majority of participants (55.9%) were employed by private, for-profit organizations, although 24.5% were em-

¹ For the purposes of this article, we refer to individuals who are legally blind. We recognize that visual formatting may also pose related challenges for individuals with visual impairments who maintain partial sight. However, the challenges for this group may be somewhat easier to overcome independently given that individuals with partial sight can rely at least partially on screen magnification software (e.g., Dolphin's Supernova software combines screen magnification with screen reading and Braille displays) to actually see visual cues such as font and layout aesthetics in some form when necessary. Hence, although attending to these visual cues is more cumbersome than for fully sighted individuals, some notion of the "look" of a font or page layout is still possible for individuals with visual impairments who are not legally blind.

ployed by government organizations, and 19.6% were employed by nonprofit organizations. By race, 89.8% of our participants identified as White, 5.3% Black, 1.6% Hispanic, 1.6% Native American, 0.4% Asian, and 1.2% other.

Design

The present study featured a 2 (visually formatted vs. unformatted resume) \times 2 (blind vs. sighted applicant) between-subjects design, with ratings of applicant hireability and personality characteristics as the dependent variables. The online questionnaire consisted of four hypothetical resumes (three fillers to prevent participants from suspecting the true nature of the study and a target resume from one of the four experimental conditions) and ratings associated with each resume.

Independent variables. The manipulation of blindness was conveyed through a slight change of wording across conditions: The applicant with blindness listed working experience at the “Division of Blind Services” and membership in the “National Blind Student Association”; the sighted control reported comparable experience working at the “Division of Human Services” and membership in the “National Student Association.” Resume format was manipulated by modifying the spacing and attractiveness of the fonts; specifically, the visually formatted version was prepared using 10-point Lucida Sans Unicode font, with indented and bolded headings, whereas the unformatted

version was composed in plain text using 12-point Times New Roman font without indentations or other visually formatted elements (i.e., centering, bullets, alignment). For realism in creating the resume formatting manipulation, we compared those visual elements that were found in resume templates available from multiple university career centers with the resume of a blind college student that was created without sighted assistance (see Figures 1 and 2).

Dependent variables. To assess human resource managers’ perceptions of applicant personality characteristics, we used the Ten-Item Personality Inventory (Gosling, Rentfrow, & Swann, 2003), which consists of five pairs of adjectives corresponding to the Big Five personality traits. We used this scale because of its brevity and ease of understanding. We measured hireability using a three-item, 7-point hireability scale, adapted from Rudman and Glick (2001; $\alpha = .91$): “I would interview this applicant for an entry-level management position,” “I would consider hiring this applicant for an entry-level management position,” and “I would personally hire this applicant for an entry-level management position.”

Procedure

All participants were sent a link to the survey after agreeing to take part in the study. They were first presented with a cover story regarding the historical use of convenience samples of undergraduate students as research participants and were told that the study

Sarah Cooper
2630 Bissonnet Street APT. #19
Houston, TX. 77005
832-812-2654
Sarah.Cooper@rice.edu

EDUCATION
BA, Rice University, Houston, TX
Expected 5/2008; Major: Managerial Studies, GPA: 3.1.

ORGANIZATIONAL EXPERIENCE
1. Office Manager, Division for Blind Services, Houston, TX
November 2006 – present, 20 hours per week during school year
Direct calls and emails in a high-volume environment; research and respond to general questions about the agency; prepare and organize staff scheduling.
2. Intern, Pricewaterhouse Coopers, Houston, TX
May 2005 – August 2005
Developed a statistical model to calculate tax estimates for Income Tax Returns; designed tax-planning strategies for clients on foreign assignments; attended Strategic Development meetings.

ACTIVITIES AND LEADERSHIP
1. Member, Blind Student Association, Houston, TX
September 2005 – present
Serve on Scholarship and Speaker Series committees; publicize events of interest to blind students in monthly online newsletter.
2. Treasurer and Alumni Relations Chair, Rice Entrepreneurial Society, Houston, TX
June 2006 – present
Write monthly financial report for Executive Board; organize semi-annual educational events in Houston and Dallas.
3. Mentor, Youth Leadership Council, Houston, TX
June 2004 – August 2004
Coordinated and supervised activities for high school students at summer leadership program; designed and implemented role-playing workshops to build student leadership skills; facilitated interaction among diverse students as members of a team

Figure 1. Visually unformatted resume stimulus materials.

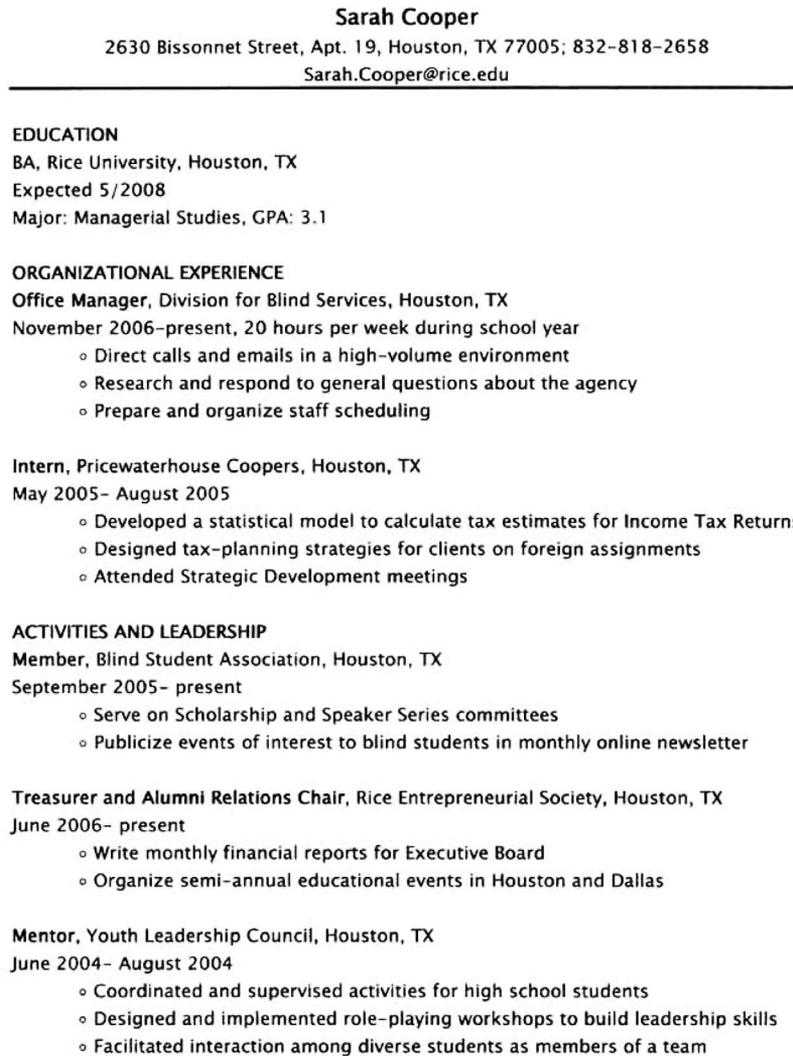


Figure 2. Visually formatted resume stimulus materials.

aimed to examine differences in how human resource professionals and undergraduate students evaluate the work and academic experiences of job candidates. Participants were told that they would be presented with the resumes of four hypothetical graduating college seniors, and that they would be asked to infer the personality characteristics of the applicants and evaluate their suitability for a typical entry-level management position. Participants then were randomly assigned to one of the four experimental conditions on the basis of their answers to the following question: “In which season were you born?” For each resume presented, they were asked to rate the applicant using the personality and hireability scales previously described. In addition, they were asked to judge the extent of visual formatting on a four-item, 7-point scale ($\alpha = .95$; sample item: “This is a well-formatted resume”). Before submitting the survey, all participants were asked whether they had noticed that one of the applicants was blind using a checklist of seven stigmas (i.e., blindness, deafness, gay or lesbian), which served as a check for the manipulation of blindness. The online

survey did not allow participants to return to previous pages of the survey to change their earlier responses.

Results

Manipulation Checks

As expected, participants judged the visually formatted resume to be significantly more visually appealing than the unformatted resume, $t(247) = 15.97, p < .001$. Specifically, the formatted version of the target resume received a mean rating of 4.29 ($SD = 1.23$) on a Likert scale with 1 = *very poorly formatted* and 7 = *very well formatted*. In contrast, the visually unformatted version received a mean rating of 1.97 ($SD = 1.06$).

Also as expected, significantly more participants in the blindness condition perceived the applicant to be blind relative to those in the nonblind condition, $\chi^2(1) = 38.52, p < .001$, and no

participant in the nonblind condition reported perceiving the applicant as blind.

Perceptions of Blind Applicants

We began by testing the idea that applicants perceived to be blind (vs. sighted) would be rated as possessing more favorable personality characteristics. Indeed, applicants perceived to be blind were rated as more conscientious, $t(148) = 2.50, p = .01, d = 0.41$, agreeable, $t(148) = 2.75, p < .01, d = 0.45$, extraverted, $t(148) = 2.16, p < .05, d = 0.36$, and open to experience, $t(148) = 2.91, p < .01, d = 0.48$, than applicants perceived to be sighted. However, despite the importance of these personality characteristics for job performance (Barrick & Mount, 1991; Hurtz & Donovan, 2000), there were no significant differences found in the way that participants evaluated applicants perceived to be blind versus sighted on hireability ratings, $t(151) = 1.04, ns$.

Effect of Visually Appealing Resumes

We next tested the idea that visually appealing resumes enhance the employers' perceptions of job applicants beyond objective qualifications. Sighted applicants with formatted resumes, relative to those with unformatted resumes, were judged to be more conscientious, $t(114) = 3.80, p < .001, d = 0.71$, more agreeable, $t(114) = 2.00, p < .05, d = 0.37$, more emotionally stable, $t(114) = 2.28, p < .05, d = 0.43$, more open to experience, $t(114) = 2.34, p < .05, d = 0.44$, and more hireable, $t(117) = 2.43, p = .02, d = 0.45$. Notably, these advantages were not limited to the sighted applicants. Like their sighted controls, among applicants perceived to be blind, those with formatted resumes were rated as more conscientious, $t(125) = 2.03, p = .04, d = 0.36$, more emotionally stable, $t(126) = 2.78, p < .01, d = 0.50$, more open to experience, $t(126) = 2.24, p < .01, d = 0.40$, and more hireable, $t(127) = 3.33, p = .001, d = 0.59$. Visual format did not, however, affect perceived agreeableness, $t(126) = 1.40, ns$.

Discussion

The present study examined employers' perceptions of job applicants with blindness in the initial credential evaluation process. We contribute to the research literature on individuals with disabilities by showing that even for those individuals with a disability for which particularly strong norms to avoid prejudice exist (Crandall et al., 2002), favorable general attitudes do not translate into equal opportunity for qualified applicants with blindness in hireability evaluations made by organizational decision makers.

Consistent with findings on other groups with disabilities (Bell & Klein, 2001; Louvet, 2007), the personal characteristics of applicants perceived to be blind were rated more favorably than matched sighted applicants. Human resource managers rated applicants perceived to be blind as more agreeable, more conscientious, more extraverted, and more open to experience than sighted applicants with equivalent qualifications. However, these positive evaluations were not accompanied by more favorable hireability ratings. Consistent with past research (Biernat & Vescio, 2002; Vescio et al., 2005), even hypothetical allocation of valued re-

sources did not accompany positive feedback toward members of a disadvantaged group.

Rather, applicants with blindness face a unique challenge. Resume screening is a near universal initial step in making hiring decisions, and our results show that human resource managers attend significantly to the visual format of resumes rather than content (qualifications) alone. Despite various assistive technology tools (e.g., screen-reading software), applicants with blindness still cannot see the "look" or aesthetics of resume font and layout, and may require sighted assistance to attend to visual cues. As many who cannot see may not be aware of the importance placed on document formatting or may be reluctant to seek help from others for fear of appearing dependent, even with equal qualifications, applicants with blindness are apt to find themselves disadvantaged in the job-seeking process. This news may be unsettling for individuals with blindness who are trying to navigate much bigger issues.

From the perspective of employers, these findings suggest the need for standardized applications that can be screened for objective qualifications without penalty for visual cues. Online application blanks in html can be readily completed with the use of screen readers, allowing blind applicants equal footing in the initial screening process. From the perspective of vocational rehabilitation professionals working with individuals with blindness, these findings suggest that counselors should focus more on conveying the importance of document formatting and other visual self-presentation skills to their clients and provide necessary training to help those who cannot see better understand how they may be evaluated by sighted individuals. As long as visual formatting remains a major consideration in the hiring process, career workshops that provide sighted assistance and feedback in the specific formatting elements of resume preparation might be very helpful for job seekers with blindness.

Although the current study has extended research on job seekers with disabilities to include applicants with blindness, some questions remain unanswered. First, we note that our findings likely reflect a "best case" scenario for applicants with blindness. Although we did employ many measures, including a realistic cover story and filler resumes to minimize the social desirability bias, our participants may have responded differently if faced with blind employees in the particular context of their own organizations. That is, human resource managers in our study may have reacted similarly to participants in previous research, which shows that expressed attitudes are much more favorable than behavioral concomitants directed toward individuals with disabilities (see Hastorf et al., 1979; Kleck, Ono, & Hastorf, 1966).

Future research using resume correspondence testing in field settings (e.g., Bertrand & Mullainathan, 2004) would contribute to our understanding of how visual impairment affects one's perceived suitability for employment. Furthermore, previous research has shown that disability-job fit often moderates hireability outcomes. We used an entry-level management job to allow for common familiarity and expertise by our sample, but studies that assess the perception of individuals with blindness seeking employment in other professions might be extremely valuable. In addition, future studies could examine whether the relationship between visual format cues and hireability is moderated by quality of applicant credentials. Perhaps most important, empirical research is also needed to better understand the factors that may

contribute to the reluctance of individuals with blindness to seek sighted assistance as needed during the job-seeking process.

In summary, this research offers a solid starting point in investigating perceptions toward a largely unstudied group of disabled applicants. We extend general research on applicants with disabilities by showing that even for those with a disability for which the strongest norms to be kind exist (Crandall et al., 2002), more favorable perceptions of personal characteristics do not translate into equal opportunity for qualified applicants with blindness in the credential evaluation process. Rather, we show that human resource managers' reliance on visual format cues in resume screening is apt to disadvantage applicants with blindness, which highlights the need for changes in how employers screen applicants' qualifications.

References

- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1–26.
- Bell, B. S., & Klein, K. J. (2001). Effects of disability, gender, and job level on ratings of job applicants. *Rehabilitation Psychology, 46*, 229–246.
- Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review, 94*, 991–1013.
- Biernat, M., & Vescio, T. K. (2002). She swings, she hits, she's great, she's benched: Implications of gender-based shifting standards for judgment and behavior. *Personality and Social Psychology Bulletin, 28*, 66–77.
- Colella, A., DeNisi, A. S., & Varma, A. (1998). The impact of ratees' disability on performance judgments and choice as partner: The role of disability–job fit stereotypes and interdependence of rewards. *Journal of Applied Psychology, 83*, 102–111.
- Crandall, C. S., Eshleman, A., & O'Brien, L. (2002). Social norms and the expression and suppression of prejudice: The struggle for internalization. *Journal of Personality and Social Psychology, 82*, 359–378.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A verby brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*, 504–528.
- Hastorf, A. H., Northcraft, G. B., & Picciotto, S. R. (1979). Helping the handicapped: How realistic is the performance feedback received by the physically handicapped? *Personality and Social Psychology Bulletin, 5*, 373–376.
- Hurtz, G. M., & Donovan, J. J. (2000). Personality and job performance: The Big Five revisited. *Journal of Applied Psychology, 85*, 869–879.
- Jones, G. E. (1997). Advancement opportunity issues for persons with disabilities. *Human Resource Management Review, 7*, 55–76.
- Kleck, R. E., Ono, H., & Hastorf, A. H. (1966). The effects of physical deviance upon face-to-face interaction. *Human Relations, 19*, 425–436.
- Louvet, E. (2007). Social judgment toward job applicants with disabilities: Perception of personal qualities and competences. *Rehabilitation Psychology, 52*, 297–303.
- Menec, V. H., & Perry, R. P. (1998). Reactions to stigmas among Canadian students: Testing an attribution–affect–help judgment model. *Journal of Social Psychology, 135*, 443–453.
- Miller, B. K., & Werner, S. (2005). Factors influencing the inflation of task performance ratings for workers with disabilities and contextual performance ratings for their coworkers. *Human Performance, 18*, 309–329.
- Ren, L. R., Paetzold, R. L., & Colella, A. (2008). A meta-analysis of experimental studies on the effects of disability on human resource judgments. *Human Resource Management Review, 18*, 191–203.
- Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues, 57*, 743–762.
- Rush, L. (1998). Affective reactions to multiple social stigmas. *Journal of Social Psychology, 138*, 421–430.
- Ryland, E. K., & Rosen, B. (1987). Personnel professionals' reactions to chronological and functional resume formats. *Career Development Quarterly, 35*, 228–238.
- Stone, D. L., & Colella, A. (1996). A model of factors affecting the treatment of disabled individuals in organizations. *Academy of Management Review, 21*, 352–401.
- Toth, C. (1993). Effect of resume format on applicant selection for job interviews. *Applied Human Resource Management Research, 4*, 115–125.
- Vescio, T. K., Gervais, S. J., Snyder, M., & Hoover, A. (2005). Power and the creation of patronizing environments: The stereotype-based behaviors of the powerful and their effects on female performance in masculine domains. *Journal of Personality and Social Psychology, 88*, 658–672.

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