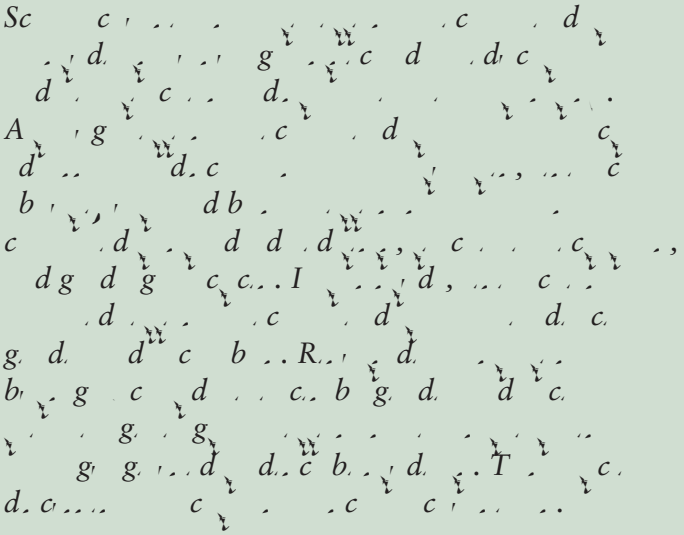
GENDER AND ETHNIC BIAS IN LETTERS OF RECOMMENDATION: CONSIDERATIONS FOR SCHOOL COUNSELORS



Most universities require prospective students to submit one or more letters of recommendation when applying for undergraduate admission (The College Board, 2016). In many cases, the letters are used not only to

to letters of recommendation in their evaluation of candidates. Further, Kuncel, Kochevar, and Ones (2014) suggested this importance is evident for decades, where letters are the third most used predictor of college success after GPA and test scores.

One fundamental delivery mechanism within the ASCA National Model (American School Counselor Association [ASCA], 2012) is individual planning. In particular, high school counselors help students plan and prepare for postsecondary education. With respect to letters of recommendation, high school counselors play an especially large role. Counselors not only write their own letters of recommendation, but also provide guidance to teacher recommenders. The counselor competencies outlined by NACAC (2012) instruct counselors to "provide training, orientation, and consultation…to faculty, administrators, staff, and school officials to assist them in responding to the educational development and

Patrick Akos, Ph.D., is a professor at the University of North Carolina at Chapel Hill. Email: pta@unc.edu **Jennifer Kretchmar, Ph.D.**, is senior assistant director of admissions for research, also at the University of North Carolina at Chapel Hill.

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suggesting that men were more likely to be described as having a superlative amount of natural ability. Similar bias and social role influences appear in the relationship between descriptors and hiring decisions. Madera, Hebl, and Martin (2009) found that women were more likely to be described in terms of communal adjectives (e.g., agreeable, sensitive, helpful), men in terms of agentic adjectives (e.g., directive, competent, independent), and that communal adjectives negatively correlated with hiring decisions.

Much of the research on gender bias in letters of recommendation is grounded in Eagly's social role theory (Eagly, 1987; Eagly et al., 2000), described above. Beyond the general distinctions between agentic and communal, the overrepresentation of men in particular types of professions—mainly, math- and science-related disciplines—has led to more specific beliefs about men's and women's intellectual abilities in these domains (Wood & Eagly, 2010). In general, women are believed to be more creative and verbally skilled, and men more analytically and quantitatively skilled (Cejka & Eagly, 1999).

As social roles change, the theory suggests, so too will gender stereotypes. And indeed, social roles have changed a great deal in the past few decades. Women earned 58% of bachelor's degrees in 2006 compared to 43% in 1970 (National Center for Education Statistics [NCES], 2007), for example, and high school girls are now as likely as high school boys to take calculus (NCES, 2004). Similarly, women's participation in the workforce nearly doubled in the last half century (e.g., Wood & Eagly, 2010). Changes in gender stereotypes, however, may not be keeping pace. Consistent with the notion of cultural lag—the idea that beliefs change more slowly than roles—much research indicates that gender stereotypes have remained stable over time (Bergen & Williams, 1991; Feingold, 1994; Lueptow, Garovich-Szabo, & Lueptow, 2001). Furthermore, some roles are not changing as fast as others; despite women's increased representation in higher education and the workforce, they are still less likely to pursue math and science majors in college, and they comprise just 15% of employed engineers and 25% of employed physicians (e.g., National Girls Collaborative Project, 2016).

Even as consciously held beliefs evolve, an emerging area of research suggests that many biases may be implicit, existing outside our conscious awareness. Using the Implicit Association Test, Rudman and Glick (1999) found an unconscious association between men and agency, and women and communal adjectives, regardless of consciously held beliefs. Lemm and Banaji (1999) referred to the gap between conscious and unconscious beliefs as "socially problematic" (p. 225), since people who do not explicitly endorse gender stereotypes might still be guided by implicitly held beliefs. Indeed, they later showed that an implicit men-agentic/women-communal stereotype predicted job discrimination against a female applicant, whereas a self-report measure did not (Rudman & Glick, 2001). Nosek, Banaji, and Greenwald (2002) found similar evidence for an implicit association between math/science and male and language/arts and female, which was predictive of both performance in math and science and preferences for studying in those fields.

Race

Racial bias in recommendation letters, by contrast, has been virtually ignored in the research literature. Although Bouton (1995) examined how recommenders from various ethnic and cultural backgrounds approach the task of letter writing differently, we could not locate empirical research that investigates whether or not the ethnicity or race of the student and/or job applicant biases the recommender. Research has demonstrated, however, that teachers are susceptible to negative stereotypes about ethnic groups (McKown & Weinstein, 2008; Reyna, 2008), and that teacher expectations may play a role in perpetuating the achievement gap between Caucasian and African American and Latino students (Ferguson 1998; McKown & Weinstein, 2008).

In research on racial stereotypes more generally, Devine and Elliot (1995) discovered that most White Americans have knowledge of the Black stereotype—one that is stable and highly negative—but that only a minority actually endorse the stereotypes. Among low-prejudiced individuals, for example, 88% selected low in intelligence as a trait of the black stereotype, though only 6% selected it as a personal belief. Among high-prejudiced individuals, on the other hand, 82% selected "lazy" as a trait of the Black stereotype, and 72% endorsed it as a personal belief. Nosek and colleagues (2007) documented a persistent implicit association between African American and "bad" and White American and "good," even among people who hold explicit egalitarian beliefs and attitudes.

Importantly, Devine and Elliot (1995) also discovered that high- and low-prejudiced individuals possess the same *dg.* of the black stereotype; rejection of the stereotype, however, does not immediately eradicate it from one's mind. It is still a "well-organized, frequently activated knowledge structure" (p. 1140). In fact, it can be activated outside of one's conscious control, automatically, by the presence of certain stimuli resulting in prejudice-

for high school program and performance, as well as the SAT (CR/V + M) score. Results are detailed in Table 2.

Letters of recommendation for female applicants contained a higher proportion of grindstone adjectives than letters of recommendation written for male applicants. For our average female applicant, .98% of all words were grindstone adjectives. In a letter of recommendation 400 words in length, this represents 3.92 words. For the similarly credentialed male applicant, .90% of words were grindstone adjectives, or 3.60 words in a 400-word letter. The gender of

the frequency of ability words used by humanities recommenders to describe female applicants compared to math/science recommenders describing female applicants.

Similarly, results showed a significant interaction between gender of the applicant and course type on achievement words. Recommenders teaching math or science were more likely to use achievement words when describing female applicants than recommenders teaching the humanities; the proportion of achievement words used by math/science recommenders for female applicants was 5.07% compared to 4.89% for humanities recommenders. In a

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for honors. Similarly, a top applicant whose 400-word letter of recommendation contained 12 agentic adjectives had a 10.3% probability of honors selection; equally credentialed top applicants whose 400 word letter of recommendation contained 4 agentic adjectives had a 5.2% probability of being selected for honors.

DISCUSSION

On the whole, and with respect to the particular variables of interest in this study, letters of recommendation written for male and female applicants were more similar than they were different. Letters of recommendation written for minority and nonminority applicants, with respect to the variables of interest in this study, were also more similar than they were different. As one of the first empirical tests of bias in letters of recommendation written for college applicants, these results are promising at first glance. But there were also some significant differences in the way male and female and minority and nonminority applicants were described—especially with respect to some of the exploratory variables included in the study—that should give pause and warrant further investigation.

Although length does not directly address content or bias, previous research found gender differences (Trix & Psenka, 2003) and it may serve as a proxy for bias. We found a positive relationship to letter length. Specifically, letters written for male applicants by female recommenders were longer than letters written for male applicants by male recommenders, whereas letters written for female applicants were the same length, regardless of the gender of the recommender. In addition, recommenders teaching humanities wrote longer letters, on average, than recommenders teaching math and science. Because we could not locate previous research that explored the interaction between gender of the recommender and applicant, we have no context into which to place these findings; it may be that the relationship between gender of recommender and gender of application is mediated by the subject taught by the recommender, suggesting a three-way interaction. Future research should explore the way multiple characteristics of recommenders and students might intersect to produce potential bias.

We also found a positive relationship between letter length and the recommender's evaluation; longer letters typically suggested stronger endorsements. Specifically, word count significantly and positively associated with both probability of admission and honors selection; for two students presenting equal academic credentials,

recommenders used ability words with the same frequency to describe male applicants. In some ways, these results partially support social role theory and findings by Trix and Psenka (2003) who found that recommenders were more likely to describe female candidates in terms of their work ethic—or what they called "grindstone adjectives"—and male candidates in terms of talent and ability. The female candidates in their study were applying for jobs in the sciences, fields still traditionally dominated by men (Schmader, Whitehead, & Wysocki, 2007). If gender stereotypes are grounded in social roles, as social role theory suggests (Eagly et al., 2000), we might expect to find more bias in letters of recommendation when the position being recommended for is perceived as a gender stereotypical role. The role of student, on the other hand, is arguably more gender neutral. The role of student did not serve as a gender cue until a female student was paired with a recommender writing about the student's achievement and/or ability in math and science.

In addition to gender, some significant differences emerged in the frequency with which particular descriptors were used by recommenders to describe underrepresented applicants. For example, recommenders used slightly fewer grindstone adjectives (e.g., thorough) to describe underrepresented applicants. Additionally, achievement words were also significantly associated with the ethnicity of the applicant, but a significant interaction with applicant gender also emerged. Recommenders used fewer descriptors of prior accomplishment for male underrepresented candidates; results showed no differences in the proportion of achievement descriptors for female underrepresented candidates. While these data are not

makes connections between ideas and events in a way I have rarely witnessed in a student of her age."

To further consider language, when providing examples that describe a student in terms of their work ethic and natural ability, teachers or counselors should pause and ask themselves how much they know about the student in terms of each of these characteristics. While ASCA mindsets and behaviors can be powerful descriptors, teachers do not always have evidence to attribute classroom success to one or the other—they might not know how many hours a student studies at night vs. how naturally talented they are in math, for example. We all tend to explain success differently for different groups of people; recommenders should make sure that examples, and the balance between the examples they provide, do not reflect these biases (e.g., to communicate a student's natural affinity for physics, a letter should not primarily describe how hard he works). Additional sources (e.g., Jones, 1990) for guidance on writing letters of recommendations expand on these and guide larger policy and procedures.

Limitations and Future Research

Like most research, conclusions are specific to or limited by sample and methodology choices. Our findings relate to bias as measured by letter length and adjective use. Neither can capture bias in a comprehensive way. Further, our sample of letters was for applicants at one public, research-intensive university in the Southeast. Future research should utilize broader samples or letters of recommendation and consider varied methods (e.g., content analyses, direct survey, or interview of writers of letters or campus admission committees) to explore bias. In particular, bias around STEM areas for female students is ripe for inquiry. This study is only one possible line of research on the important school counselor task of college access/admissions counseling and individual planning. Futher research can explore guidance on personal statements and the most effective ways to deliver services amidst challenging school counselor role demands. Recognition of the social justice aim of school counseling is especially important in high-poverty schools. The gender and racial composition of a school may mediate bias and best practice.

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