

Subtle Perceptions of Male Sexual Orientation Influence Occupational Opportunities

Nicholas O. Rule^{1*}

R. Thora Bjornsdottir¹

Konstantin O. Tskhay¹

Nalini Ambady²

¹University of Toronto

²Stanford University

*corresponding author: rule@psych.utoronto.ca

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Abstract

Theories linking the literatures on stereotyping and human resource management have proposed that individuals may enjoy greater success obtaining jobs congruent with stereotypes about their social categories or traits. Here, we explored such effects for a detectable, but not obvious, social group distinction: male sexual orientation. Bridging previous work on prejudice and occupational success with that on social perception, we found that perceivers rated gay and straight men as more suited to professions consistent with stereotypes about their groups (nurses, pediatricians, and English teachers vs. engineers, managers, surgeons, and math teachers) from mere photos of their faces. Notably, distinct evaluations of the gay and straight men emerged based on perceptions of their faces with no explicit indication of sexual orientation. Neither perceivers' expertise with hiring decisions nor diagnostic information about the targets eliminated these biases, but encouraging fair decisions did contribute to partly ameliorating the differences. Mediation analysis further showed that perceptions of the targets' sexual orientations and facial affect accounted for these effects. Individuals may therefore infer characteristics about individuals' group memberships from their faces and use this information in a way that meaningfully influences evaluations of their suitability for particular jobs.

Keywords: sexual orientation, Role Congruity Theory, Lack of Fit Model, nonverbal behavior, person perception

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People attend to differences in social categories and one's appearance plays an active role in this. The visual salience of distinctions based on age, race, and sex allows perceivers to categorize others quickly, efficiently, automatically, and accurately, but also facilitates stereotyping, prejudice, and discrimination (Macrae & Bodenhausen, 2000). A vast literature has thus documented myriad ways in which people use information about these dimensions to form assumptions about others that favor some groups at the expense of others (see Fiske, 2000).

Despite the ease with which people typically infer age, race, and sex, many important social distinctions are not so easily extracted from appearance. Group memberships like religious affiliation, political ideology, and sexual orientation, for example, are perceptually ambiguous. Nevertheless, people perceive these characteristics better than chance (see Tskhay & Rule, 2013, for review). Although perceptually ambiguous social categories also form the basis for group favoritism and discrimination in *concept* (e.g., Rule, Ambady, Adams, & Macrae, 2007), little work has examined how the visual features that distinguish them might support prejudice and discrimination in *behavior*. That is, do people discriminate against members of perceptually ambiguous groups even when those group memberships are not obvious or explicit? Here, we explored how perceptions of one ambiguous dimension (male sexual orientation) might promote biases that could impact individuals' professional success.

Facial Cues to Sexual Orientation

People need to perceive sexual orientation in order for it to affect their judgments. Though rates of accuracy for sexual orientation pale compared to more obvious distinctions like race (see Remedios, Chasteen, Plaks, & Rule, 2011), people can indeed judge men's and women's sexual orientation from photos of their faces and even from individual facial features,

such as pairs of eyes (e.g., Rule, Ambady, Adams, & Macrae, 2008). Moreover, these judgments share many of the cognitive features of perceptually obvious groups: people perceive sexual orientation rapidly (as briefly as 40 ms), automatically, and without awareness when seeing a face (e.g., Rule, Ambady, & Hallett, 2009). These cognitions also show evidence of ingroup bias: One study suggested that straight men terminated their processing of gay men after seeing their faces without explicitly knowing their sexual orientation, consequently recognizing the faces of other straight ingroup members significantly better than gay outgroup members in a surprise memory test (Rule et al., 2007). Evidence thus suggests that people perceive sexual orientation from minimal visual cues and that this information guides subsequent processing of them. But people often lack awareness that they can even perceive sexual orientation (e.g., Rule et al., 2007, 2008; Rule, Macrae, & Ambady, 2009). Moreover, the consequences of these perceptions remain unexplored. Here, we examined how indirectly construing targets as gay and straight might affect outcomes related to their professional success.

Influence of Facial Information on Life Outcomes

Studies have already demonstrated that direct perceptions of sexual orientation can influence a person's professional opportunities. A large literature has shown that manipulations of job applicants' group membership (including sexual orientation) results in negative evaluations and outcomes for minority group members when this information is explicit or relatively obvious (e.g., via resumés; Bertrand & Mullainathan, 2002). Extending this to interpersonal interactions, Hebl and colleagues showed that manipulating confederates' alleged sexual orientation affected their experiences when applying for jobs (e.g., Hebl, Foster, Mannix, & Dovidio, 2002; Hebl & Mannix, 2003). Moreover, stigmas marked by overt visual cues (e.g., a

facial disfigurement) can also negatively impact evaluations of job candidates (Madera & Hebl, 2012).

Previous research has also illustrated that *facial appearance* can impact one's personal and professional success in several domains (e.g., election outcomes, length of life, leadership success; Abel & Kruger, 2010; Rule & Ambady, 2010). Obvious cues to group membership play an important role in this. A study by Blair, Judd, and Chapleau (2004), for example, found that the Afrocentricity of defendants' facial features biased Florida judges' sentencing decisions. Although Black and White defendants received comparable sentences, the more Afrocentric-looking defendants of both races received harsher punishments. The authors concluded that this may constitute evidence of racism that implicitly skews individuals' perceptions while explicitly appearing egalitarian (see also Dovidio & Gaertner, 2000). Eberhardt, Davies, Purdie-Vaughns, and Johnson (2006) reported similar effects: More stereotypically Black-looking convicts received the death penalty more often than less stereotypically Black-looking convicts in Pennsylvania courts. Similar work has found that litigants' facial maturity, attractiveness, and perceived trustworthiness influence their outcomes in stereotype-consistent ways in both civil and criminal court cases (Stewart, 1980; Wilson & Rule, 2015; Zebrowitz & McDonald, 1991).

Appearance even influences the perceptions of people well-informed by more relevant and diagnostic information. Experimental participants who learned about targets' honesty still judged trustworthiness based largely on facial appearance (Rudoy & Paller, 2009; Rule, Slepian, & Ambady, 2012) and perceivers routinely ignore base-rate information when forming impressions of others along a variety of dimensions (Olivola & Todorov, 2010). In a comprehensive demonstration of the effect of facial appearance over better knowledge, Blair, Chapleau, and Judd (2005) presented participants with numerous statements about target

individuals' past aggressive and non-aggressive behaviors. Despite repeated learning, participants still evaluated targets with more Afrocentric features as more aggressive—consistent with stereotypes. Similarly, Rule, Tskhay, Freeman, and Ambady (2014) iteratively trained participants to learn targets' ostensible sexual orientations until they reached perfect performance, only to find that the participants reverted back to their initial face-based impressions after a short break. Facial appearance therefore persistently influences thought and judgment when perceivers possess more informative and diagnostic knowledge, and even for highly consequential outcomes. Moreover, these effects occur not only in laboratory studies but also in field experiments documenting actual events in the real world. Yet, to date, little is known about how non-obvious or indirect facial cues to social categories affect life outcomes.

Stereotyping and Employment

To help fill this gap, we examined whether stereotypes about sexual orientation might lead to a preference for gay and straight men in particular professional positions. We expected that individuals would deem both gay and straight men as better suited to positions fitting assumptions about their group membership, and that this would occur even when sexual orientation was not communicated explicitly (e.g., Hebl et al., 2002) but by very subtle and minimal cues in facial appearance. Indeed, previous research has found that stereotypes guide perceptions of individuals' suitability and success in professional positions. Role Congruity Theory (Eagly & Karau, 2002), for example, proposes that men stereotypically occupy agentic social and occupational roles whereas women tend to occupy more communal and caretaking roles, consistent with gender norms ascribed to the sexes. Similarly, Heilman's (1983) Lack of Fit Model suggests that individuals whose characteristics (often based on group stereotypes) do

not match those typical for a given position will be considered unsuitable for it; for example, women in leadership positions (Eagly & Karau, 2002).

Although scholars have principally applied these theories to gender stereotypes in past research (e.g., Heilman, 2001), evidence suggests that they may also pertain to sexual orientation (e.g., Horvath & Ryan, 2003; Pichler, Varma, & Bruce, 2010; Tilcsik, 2011). Pichler et al. (2010), for example, presented participants with resumés of men and women identified as gay/lesbian or straight for a sales manager or registered nurse position. They found that people rated “misfit” job candidates (e.g., a heterosexual man applying for a nursing post) as less suitable than candidates whose group membership matched the gender stereotypes related to the respective jobs. Gender typicality therefore represents a critical component of the evaluation of a person’s fit for a given job or social role. People accordingly tend to consider feminine people (such as gay men and straight women) better suited to stereotypically communal jobs and roles, and masculine people (e.g., straight men and lesbian women) better suited for stereotypically agentic positions in work and society (e.g., Tilcsik, Anteby, & Knight, 2015).

Relationship between sexual orientation and gender. Similar mismatches also influence people’s perceptions of sexual orientation. For centuries, Western culture has viewed gay men and lesbian women through the lens of gender inversion (i.e., the notion that they are simply men and women trapped in women’s and men’s bodies, respectively; Ulrichs, 1870/1997). Thus, people stereotype gay men as feminine and lesbian women as masculine— incongruent with the norms for their sexes (e.g., Kite & Deaux, 1987). Incidentally, these stereotypes may hold a kernel of truth. A host of studies has found that, on average, gay men behave more femininely than straight men, for example (e.g., Rieger, Linsenmeier, Gygax, Garcia, & Bailey, 2010). Indeed, various nonverbal manifestations of gender (i.e.,

masculinity/femininity) can accurately cue targets' sexual orientations, ranging from body motion (Johnson, Gill, Reichman, & Tassinary, 2007) to facial structure (Freeman, Johnson, Ambady, & Rule, 2010; Skorska, Geniole, Vrysen, McCormick, & Bogaert, 2015). Based on these findings, and considering the theories reviewed above, we hypothesized that people would perceive gay men as more suited to communal/feminine professions and straight men as more suited to agentic/masculine professions from mere photos of their faces—even individuals with professional experience making hiring decisions.

Perceptions beyond gender. Perceptions of masculinity/femininity do not perfectly correlate with sexual orientation, however. Although masculinity/femininity explains a sizable portion of the variance in perceivers' judgments of sexual orientation, other cues show independent influences. For instance, Tskhay and Rule (2015) found that cues to affect distinguished gay and straight men's appearance. Specifically, people stereotype gay men as happy and straight men as angry, paralleling communal and agentic traits, respectively. These affective expressions influenced perceptions of sexual orientation independent of features related to masculinity/femininity (which sometimes overlap; see Hess, Adams, & Kleck, 2005). Thus, affective expressions might cue sexual orientation over and above masculinity/femininity.

Several characteristics perceived from faces may therefore contribute to differences in perceptions of sexual orientation and could also affect perceptions of whether gay and straight men "fit" some occupations versus others. Thus, given the primacy of the face over more relevant and available diagnostic information (e.g., Blair et al. 2005), we expected that individuals' facial appearance would impact evaluators' perceptions beyond information about their qualifications for a particular job and tested the extent to which perceptions of sexual orientation, masculinity/femininity, and facial affect would mediate such relationships.

Ameliorating employment discrimination. Although we expected cues to sexual orientation to influence perceptions of gay and straight men's job suitability, a recent meta-analytic review by Koch, D'Mello, and Sackett (2015) found that various factors can mitigate gender-based role congruity effects in the workplace. For instance, studies that manipulated participants' sense of fairness showed less evidence of bias, though such interventions seemed to apply more to male-dominated jobs than to female-dominated jobs. We therefore reasoned that invoking fairness might similarly ameliorate sexual orientation biases in judgments of job suitability, at least for jobs stereotypically associated with straight men.

Current Work

We tested these hypotheses across six studies. In Study 1, participants considered how successful they thought a series of qualified men would be securing a job as either a nurse or engineer. Without mentioning sexual orientation or that the targets differed systematically, we expected that subtle cues to sexual orientation in targets' facial appearances would lead participants to evaluate the gay men as more likely to attain jobs as nurses and the straight men as more likely to attain jobs as engineers. In Study 2, we examined whether perceivers' experience with hiring decisions might affect these judgments by recruiting individuals with professional experience in selection and hiring. Consistent with studies illustrating the pervasiveness of implicit discrimination (e.g., Blair et al., 2004), we expected that individuals with professional hiring experience would not be immune to the biasing influence of sexual orientation from facial appearance. In Studies 3A and 3B, we provided judges with diagnostic information about the candidates' qualifications alongside their faces to test whether this might overcome their face-based biases; though we expected this to have little effect in light of the primacy of facial appearance upon other judgments in past work (e.g., Rule et al., 2014). In

Study 4, we did expect to see attenuation of biases based on sexual orientation, however, by instructing participants to consider the fairness of their judgments (see Koch et al., 2015).

We then extended our investigation in Study 5 by asking participants to adopt the role of consumer rather than evaluator. In Study 5A, participants considered how much they would like each target to serve either as the pediatrician (a stereotypically communal medical sub-specialty) or surgeon (a stereotypically agentic sub-specialty; Lambert & Holmboe, 2005) for themselves or a loved one. In Study 5B, participants evaluated how much they would like each man as their child's English or mathematics (math) teacher, capitalizing on widely-subscribed stereotypes of the humanities as feminine and the sciences as masculine (Storer, 1967).

Finally, because previous research has shown that masculinity and affect facilitate accurate perceptions of sexual orientation (Tskhay & Rule, 2015), which may result in discrimination based on sexual orientation (e.g., Pichler et al., 2010), we modeled the differences in job suitability attributed to the gay and straight targets across each of these three domains with masculinity/femininity, facial affect, and perceptions of sexual orientation as mediating variables in Study 6. In other words, we examined whether people's accurate inferences of sexual orientation via perceptions of affect and masculinity would explain differences in the perceived suitability of gay and straight men for jobs as nurses versus engineers, surgeons versus pediatricians, and English versus math teachers. Thus, we aimed to provide a meaningful extension of both the literatures on workplace biases and on the perception of sexual orientation from minimal cues by showing how subtle perceptions of sexual orientation may surreptitiously influence the evaluation of gay and straight men for professional roles.

Study 1

To test whether subtle cues to sexual orientation influence perceptions of success across various professions, we used a standardized and previously-validated database of gay and straight faces (Rule & Ambady, 2008). The set consisted of 90 pictures of the faces of 18-30 year-old Caucasian men downloaded by hypothesis-blind research assistants from online dating websites in major U.S. cities. Men who indicated seeking a same-sex partner were considered gay ($n = 45$), whereas men seeking opposite-sex partners were considered straight ($n = 45$). The research assistants acquiring the photos searched for targets located in distant cities and downloaded the first several photos with faces directed towards the photographer's camera that did not have facial adornments, such as beards, eyeglasses, piercings, or jewelry. Because the websites organized the profiles based on the users' activity (most recent users listed first), the order of profiles was effectively random. Upon acquisition, the research assistants removed the faces from their original backgrounds, grayscaled them, cropped them to the extremes of the head, and standardized them in size. Previous testing showed no differences in the levels of facial attractiveness between the gay and straight men's faces (see Rule et al., 2008). Moreover, although there were no cues from clothing available in the photos, removing other stylistic cues (i.e., hairstyle) from the faces did not obviate the legibility of the targets' sexual orientation in past work (Rule & Ambady, 2008; Rule et al., 2008). Sexual orientation can therefore be reliably extracted from these stimuli but is done with sufficient error as to not be obvious (rates of accuracy in past studies have typically ranged between 60-70%; see Tskhay & Rule, 2013).

We instructed 68 undergraduate participants that they would view a series of photos of men due to graduate from a local engineering ($n = 34$) or nursing ($n = 34$) program at the end of the semester who were currently applying for jobs with engineering firms or hospitals, respectively.¹ We asked them to assess how likely they thought each individual would be to

acquire a job within the next six months along a scale ranging from 1 (*Not at all likely*) to 7 (*Very likely*) for a total of 90 trials. We did not mention sexual orientation at any point or give any indication that the targets differed according to any systematic groupings.

Results

We submitted the data to a 2 (Condition: nursing, engineering) \times 2 (Sexual Orientation: gay, straight) ANOVA with repeated measures on the second factor. The data exhibited no main effects of Condition, $F(1, 66) = 1.39, p = .24, r_{\text{Effect Size}} = .14$, or Sexual Orientation, $F(1, 66) = 1.00, p = .32, r_{\text{Effect Size}} = .12$, but did reveal a significant Condition \times Sexual Orientation interaction, $F(1, 66) = 40.61, p < .001, r_{\text{Effect Size}} = .62$.² Bonferroni-corrected ($\alpha = .025$) simple effects *t*-tests decomposing the interaction showed that participants predicted gay men ($M = 4.11, SD = 0.51$) to be more successful than straight men ($M = 3.84, SD = 0.56$) in attaining nursing positions, $t(33) = 4.15, p < .001, r_{\text{Effect Size}} = .59$, but expected straight men ($M = 4.34, SD = 0.74$) to be more successful than gay men ($M = 3.97, SD = 0.78$) in attaining positions as engineers, $t(33) = 4.84, p < .001, r_{\text{Effect Size}} = .64$; see Figure 1.

Discussion

Without mentioning sexual orientation, individuals perceived gay men as significantly more appropriate candidates for a stereotypically communal professional position (nurse) and perceived straight men as significantly more appropriate candidates for a stereotypically agentic professional position (engineer), fitting our predictions based on the Lack of Fit Model and Role Congruity Theory (Eagly & Karau, 2002; Heilman, 1983). Given that our undergraduate participants likely had limited experience making personnel or hiring decisions (Koch et al., 2015), we sought to extend the ecological validity of the present findings in Study 2 by repeating

the study with a sample of working adults with and without experience making employee hiring decisions.

Study 2

We recruited 201 working adults (112 male, 89 female; $M_{Age} = 37.8$ years, $SD = 12.5$; 187 heterosexual, 14 gay, bisexual, or other) online via Mechanical Turk (MTurk) to follow the same procedure using the same materials and measures as in Study 1.³ Of these, 84 participants had professional experience making hiring decisions ($n = 42$ in the nursing condition, $n = 42$ in the engineering condition) whereas the remaining 117 participants did not ($n = 54$ in the nursing condition, $n = 63$ in the engineering condition). After rating the faces, the participants additionally completed a short demographic measure in which we asked about their age, gender, sexual orientation, profession, and hiring experience. For the last of these, we first asked the participants to respond “Yes” or “No” to the question “Do you have any experience in hiring employees?” after which those responding “Yes” received the prompt, “How many years of experience do you have in hiring employees?”

Results

We submitted the participants’ ratings to a 2 (Condition: nursing, engineering) \times 2 (Sexual Orientation: gay, straight) \times 2 (Hiring Experience: yes, no) ANOVA with repeated measures on the second factor. Only the Condition \times Sexual Orientation interaction reached statistical significance, $F(1, 197) = 66.52, p < .001, r_{\text{Effect Size}} = .50$ (all other main and interaction effect $F_s \leq 3.69, p_s \geq .06$, and $r_s \text{ Effect Size} \leq .14$). Bonferroni-corrected ($\alpha = .025$) simple effects within each condition mimicked the pattern observed in Study 1: participants perceived gay men ($M = 4.43, SD = 0.91$) as more likely to secure a nursing job than straight men ($M = 4.20, SD = 0.82$), $t(95) = 4.78, p < .001, r_{\text{Effect Size}} = .44$, and perceived straight men

($M = 4.53$, $SD = 0.90$) as more likely to secure an engineering job than gay men ($M = 4.23$, $SD = 1.00$), $t(104) = 6.57$, $p < .001$, $r_{\text{Effect Size}} = .54$. Including participant gender for exploratory purposes did not produce any additional significant effects in a separate model (all F s ≤ 2.36 , p s $\geq .13$, and $r_{\text{Effect Size}} \leq .12$).⁴

Despite the nonsignificant effects of participants' hiring experience, we sought to explore the relationship between hiring experience and evaluations of the targets further by examining the number of years that the participants reported having had experience making hiring decisions. We therefore conducted a 2 (Condition: nursing, engineering) \times 2 (Sexual Orientation: gay, straight) mixed model ANCOVA just among the participants with hiring experience, including their years of experience ($M = 5.41$ years, $SD = 4.90$) as a covariate. As above, only the Condition \times Sexual Orientation interaction reached statistical significance, $F(1, 81) = 42.73$, $p < .001$, $r_{\text{Effect Size}} = .59$, with the exception of the significant covariate effect of participants' years of hiring experience (i.e., participants with more hiring experience gave higher ratings to targets overall), $F(1, 81) = 9.48$, $p = .003$, $r_{\text{Effect Size}} = .32$; all other main and interaction effect F s ≤ 1.09 , p s $\geq .30$, and $r_{\text{Effect Size}} \leq .12$ (see Table S1 in the Supplemental Materials for correlations). As with the full sample, participants with hiring experience perceived gay men ($M = 4.66$, $SD = 0.94$) as significantly more suited for jobs as nurses than straight men ($M = 4.14$, $SD = 1.04$), $t(41) = 3.96$, $p < .001$, $r_{\text{Effect Size}} = .53$, and perceived straight men ($M = 4.53$, $SD = 0.89$) as significantly more suited for jobs as engineers than gay men ($M = 4.40$, $SD = 0.94$), $t(41) = 5.36$, $p < .001$, $r_{\text{Effect Size}} = .64$ (Bonferroni-corrected $\alpha = .025$).

Discussion

Working adults and people with professional experience hiring others showed biases similar to undergraduates in their evaluations of targets' job prospects from photos of their faces.

Like the undergraduate participants in Study 1, both working adults without hiring experience and professionals who hire people as part of their job gave preferable ratings to gay men over straight men for positions as nurses, and to straight men over gay men for positions as engineers. The number of years that participants reported hiring people did not moderate these effects but did seem to increase their willingness to hire candidates in general, suggesting that perhaps those inexperienced with hiring may render harsher assessments. These data help to generalize our findings in Study 1 by showing that they extend beyond a university sample to people with more life and employment experience. Yet a related limitation of this paradigm is that the participants in both Studies 1 and 2 evaluated the targets only from their faces. Rarely would one present nothing but a photo as the material for a job application; thus, we wanted to increase the ecological validity of our investigation by considering how diagnostic information about the targets' abilities might compete with facial appearance in Study 3 by providing participants with the targets' grade-point averages (GPAs; Study 3A) and professional online resumés (i.e., modified LinkedIn profiles; Study 3B).

Study 3A

We randomly assigned 102 working adults recruited from MTurk (44 male, 58 female; $M_{\text{Age}} = 38.0$ years, $SD = 12.2$; 92 heterosexual, 10 gay, bisexual, or other) to the nursing ($n = 50$) or engineering ($n = 52$) evaluation tasks following the same procedures as in Studies 1 and 2 with one difference: Here, we presented each face alongside information about the target's cumulative and major (nursing or engineering, respectively) GPA. We generated unique GPA pairs and assigned each of these to one gay face and one straight face, counterbalancing whether both of the GPAs were relatively low (3.0-3.4) or high (3.5-4.0). We instructed the participants that the maximum possible GPA was 4.0 and tested them on this knowledge at the end of the study to

ensure their understanding. Participants also answered questions about their age, gender, sexual orientation, profession, and hiring experience prior to debriefing.

Results

Because we matched the GPA information across the gay and straight faces, we analyzed the data using multilevel models that accounted for these pairs nested within each participant using SPSS (IBM Corp., 2015). To simplify model estimation, we analyzed the nursing and engineering conditions separately.⁵ Following the recommendations of Enders and Tofighi (2007), we effect-coded and grand-mean-centered the Sexual Orientation (gay, straight) and GPA (high, low) predictor variables and then regressed the participants' evaluations of the targets onto both factors and their interaction as fixed effects with a random intercept, estimating degrees of freedom with a Satterthwaite approximation (see Table S2 in the Supplemental Materials for simple correlations).⁶

Nursing condition. Results for participants' evaluations of the targets as nurses revealed a significant main effect of GPA, $B = -1.89$, $SE = 0.05$, $t(3567.18) = -41.29$, $p < .001$, $r_{\text{Effect Size}} = -.57$, such that participants evaluated targets as more suited to their intended jobs when presented with higher ($M = 5.75$, $SD = 1.21$) versus lower ($M = 3.83$, $SD = 1.40$) GPAs, thereby confirming the success of our manipulation (i.e., participants did read, process, and consider the GPA information when making their judgments). More important, we continued to observe the main effect of Sexual Orientation, $B = 0.10$, $SE = 0.03$, $t(2248) = 3.09$, $p = .002$, $r_{\text{Effect Size}} = .07$, in which participants rated the gay men ($M = 4.83$, $SD = 1.60$) as more likely to attain jobs as nurses than the straight men ($M = 4.76$, $SD = 1.64$). The GPA \times Sexual Orientation interaction was not significant, $B = -0.07$, $SE = 0.05$, $t(2248) = -1.48$, $p = .14$, $r_{\text{Effect Size}} = -.03$.

The significant main effects of GPA, $B = -1.52$, $SE = 0.07$, $t(3595.80) = -22.77$, $p < .001$, $r_{\text{Effect Size}} = -.35$, and Sexual Orientation, $B = 0.12$, $SE = 0.05$, $t(2246) = 2.53$, $p = .01$, $r_{\text{Effect Size}} = .05$, persisted when we added participant gender to the model for exploratory purposes. Moreover, the GPA \times Sexual Orientation interaction was now significant, $B = -0.14$, $SE = 0.07$, $t(2246) = -1.99$, $p = .05$, $r_{\text{Effect Size}} = .04$. Analyzing the main effect of Sexual Orientation separately for both the high and low GPAs (Bonferroni-corrected $\alpha = .025$) revealed that gay men ($M = 5.80$, $SD = 1.14$) were rated as better suited for nursing than straight men ($M = 5.70$, $SD = 1.27$) when their GPAs were high, $B = 0.10$, $SE = 0.03$, $t(1124) = 3.17$, $p = .002$, $r_{\text{Effect Size}} = .09$, but that gay men ($M = 3.85$, $SD = 1.39$) and straight men ($M = 3.82$, $SD = 1.41$) were regarded as similarly (un)suitable for nursing when their GPAs were low, $B = 0.03$, $SE = 0.03$, $t(1124) = 0.98$, $p = .33$, $r_{\text{Effect Size}} = .03$. Similarly, exploring the effects of participants' hiring experience in a separate model showed a main effect of GPA, $B = -0.76$, $SE = 0.23$, $t(3587.05) = -3.36$, $p = .001$, $r_{\text{Effect Size}} = -.06$, but not of Sexual Orientation, $B = -0.20$, $SE = 0.17$, $t(2246) = -1.24$, $p < .001$, $r_{\text{Effect Size}} = -.03$, or their interaction, $B = 0.27$, $SE = 0.23$, $t(2246) = 1.17$, $p = .24$, $r_{\text{Effect Size}} = .02$ (see Table 1 for other effects of gender and hiring experience).

Engineering condition. Results of the analyses for the evaluations of targets as engineers showed complementary results. We again observed a main effect of GPA, $B = -2.11$, $SE = 0.04$, $t(3672.28) = -47.82$, $p < .001$, $r_{\text{Effect Size}} = -.62$, such that the participants evaluated the targets as better candidates for jobs as engineers when presented with high ($M = 5.58$, $SD = 1.42$) versus low ($M = 3.50$, $SD = 1.41$) GPAs, confirming our manipulation. Critically, we also observed the main effect of Sexual Orientation, $B = -0.07$, $SE = 0.03$, $t(2338) = -2.16$, $p = .03$, $r_{\text{Effect Size}} = -.04$. As expected, participants evaluated the straight men ($M = 4.56$, $SD = 1.75$) as more likely to

attain jobs as engineers than the gay men ($M = 4.52$, $SD = 1.77$). The GPA \times Sexual Orientation interaction was not significant, $B = 0.06$, $SE = 0.04$, $t(2338) = 1.28$, $p = .20$, $r_{\text{Effect Size}} = .03$.

Similar to the evaluations of the targets as nurses, adding participant gender to the model continued to show a significant main effect of GPA, $B = -2.17$, $SE = 0.07$, $t(3669.35) = -31.32$, $p < .001$, $r_{\text{Effect Size}} = -.46$, though the main effect of Sexual Orientation was now only marginally significant, $B = -0.09$, $SE = 0.05$, $t(2336) = -1.86$, $p = .06$, $r_{\text{Effect Size}} = -.04$. A significant GPA \times Sexual Orientation interaction emerged in this model, $B = 0.15$, $SE = 0.07$, $t(2336) = 2.14$, $p = .03$, $r_{\text{Effect Size}} = .04$. Similar to the nursing condition, decomposing the interaction showed that the gay and straight targets did not differ when presented with low GPAs ($M_{\text{Gay}} = 3.50$, $SD = 1.42$; $M_{\text{Straight}} = 3.51$, $SD = 1.40$), $B = -0.01$, $SE = 0.03$, $t(1170) = -0.36$, $p = .72$, $r_{\text{Effect Size}} = -.01$. Moreover, although the straight targets ($M = 5.55$, $SD = 1.46$) garnered higher scores than the gay targets ($M = 5.61$, $SD = 1.38$) when presented with high GPAs, the difference did not survive correction for multiple comparisons (Bonferroni-corrected $\alpha = .025$), $B = -0.07$, $SE = 0.03$, $t(1168) = -2.14$, $p = .03$, $r_{\text{Effect Size}} = .06$. Accounting for participants' hiring experience almost fully ablated the main effect of Sexual Orientation, $B = -0.01$, $SE = 0.11$, $t(2336) = -0.10$, $p = .92$, $|r|_{\text{Effect Size}} < .01$, and the GPA \times Sexual Orientation interaction, $B = 0.15$, $SE = 0.16$, $t(2336) = 0.97$, $p = .33$, $r_{\text{Effect Size}} = .02$, though the main effect of GPA remained statistically significant, $B = -1.89$, $SE = 0.16$, $t(3671.93) = -11.92$, $p < .001$, $r_{\text{Effect Size}} = -.19$ (see Table 1).

Discussion

Even when presented with objective information relevant for assessing individuals' ability to perform effectively in their field of choice, participants continued to use information about sexual orientation derived from men's faces to evaluate them, though much less than they did the GPA information and with effect sizes notably smaller than those observed among

participants only judging the face in Studies 1-2. This is not because participants simply ignored the quantitative information about GPA; rather, targets' purported GPAs significantly affected the participants' judgments throughout our analyses. When accounting for participants' hiring experience, however, only the objective GPA information predicted target evaluations.

Moreover, differences based on target sexual orientation did not manifest when their ostensible GPAs were low, suggesting that the participants saw them as relatively equally unqualified for either nursing or engineering positions. The observation that targets' apparent sexual orientation did not influence evaluations of their job suitability when weakly qualified resembles Dovidio and Gaertner's (2000) findings on aversive racism, which showed that anti-Black discrimination emerged in simulated employment decisions only for ambiguously-qualified targets. Targets with obviously weak or strong qualifications theoretically compel one to rely on the clear objective information. Thus, here, participants may have simply discounted the targets with the relatively low GPAs because they appeared unqualified within the context of those whose GPAs were higher, expressing their biases only when differentiating between the relatively well-qualified candidates. We explored this possibility further in Study 3B by presenting participants with a new set of targets with a greater amount of information about professional credentials whose multivariate character increased the ambiguity of the targets' qualifications and enhanced the ecological validity of the judgments.

Study 3B

The results of Study 3A notwithstanding, people rarely evaluate job candidates by simply examining their photo alongside their GPA. Exchanging some experimental control for greater ecological validity, we therefore attempted to better approximate real hiring contexts by presenting perceivers with the profiles and photos of actual working professionals from

LinkedIn, the online professional network service. Although users do not explicitly indicate their sexual orientation on LinkedIn, we assumed that sexual minorities would be more likely to participate in Lesbian, Gay, Bisexual, and Transgender (LGBT) organizations than straight people would. We therefore identified the profiles of 43 male members of one of three not-for-profit organizations focused on fostering connections among LGBT professionals and henceforth refer to these targets as “gay.” Using LinkedIn’s Similar People function, we then found the profiles of 43 men whose backgrounds, work experience, and qualifications matched those of the gay men but who did not report affiliating with an LGBT organization; we henceforth refer to these targets as “straight.” Of these individuals, we excluded several who either posed looking away from the camera or had an obvious cue to his sexual orientation in his photo’s background (e.g., a poster or LGBT event) for a total of 56 target photos (28 gay, 28 straight).

Importantly, we edited the profiles to exclude information about affiliations so that there would be no obvious cues to sexual orientation within the profile material. Specifically, we abbreviated the profile contents to include only the information about education, two examples of recent work experience, and listed skills, assuring that nothing would indicate the sexual orientation of the profile’s original owner. We then created a second version of each profile, in which we swapped the photos of (presumably) gay targets with those of (presumably) straight targets. This resulted in two versions of each profile: one with the photo of a gay man and one with the photo of a straight man, which we counterbalanced across participants so that no participant saw the same profile or photo more than once. Thus, we manipulated sexual orientation by experimentally varying the putative sexual orientation of the photo accompanying the profile so that we could test how sexual orientation affected candidates’ hirability when presented with identical credentials.

We recruited 99 working adults from MTurk (62 male, 37 female; $M_{\text{Age}} = 33.17$ years, $SD = 9.96$; 89 heterosexual, 10 gay, bisexual or other) to rate the targets' hirability for a managerial position (a stereotypically agentic profession) from 1 (*Not at all hirable*) to 7 (*Very hirable*). To minimize fatigue and maximize engagement with the task, we asked each participant to rate only 25 randomly-selected profile-photo combinations in random order. We never mentioned sexual orientation and no participants reported recognizing any of the targets. Participants answered questions about their age, gender, sexual orientation, profession, and hiring experience at the end of the survey.

Results

A paired-samples *t*-test showed that participants rated the straight candidates ($M = 4.80$, $SD = 0.88$) as significantly more hirable than the gay candidates ($M = 4.65$, $SD = 0.93$) when presented with the same qualifications, $t(98) = 2.95$, $p = .004$, $r_{\text{Effect Size}} = .29$. Neither the participants' gender nor hiring experience significantly moderated this difference (both F 's ≤ 0.12 , all p 's $\geq .73$, all $r_{\text{S Effect Size}} \leq .04$); see Table S3 in the Supplemental Materials for correlations between the variables.

Discussion

Participants rated men as more hirable for positions as managers when their profile photo subtly conveyed that they might be straight versus gay, despite identical credentials. Although assuming the targets' sexual orientations based on their self-reported professional affiliations somewhat limits these findings, these more naturalistic stimuli (i.e., actual LinkedIn users' profiles and full-color face-and-torso photos) nevertheless produced results that dovetailed with those obtained under the more controlled conditions reported above. This convergence between

studies with high experimental control and high ecological validity thus provides a more complete picture of how sexual orientation may constrain or facilitate one's job prospects.

Consistent with past work showing the influence of facial appearance on life outcomes (e.g., Blair et al., 2004, 2005), participants in Studies 3A and 3B seemed unable to fully ignore their subjective impressions based on the targets' faces. Interestingly, we observed a larger effect of target sexual orientation here than in Study 3A, despite the provision of greater (and arguably more relevant) information. Such differences parallel those found by Dovidio and Gaertner (2000) in their study of aversive racism. In their work, participants' biases only became apparent when the targets' qualifications for a given position were ambiguous. Here, the relatively subjective and multivariate nature of the profiles presents ambiguity similar to that of basing one's judgment just upon the face (as in Studies 1 and 2), thus allowing participants to express (even if only nonconsciously) their preferences guided by the target's sexual orientation—the ambiguity of which permits rationalization of the decision.

This concerning bias based on facial appearance could contribute towards sexual orientation discrimination in employment contexts. Past studies examining other forms of workplace discrimination, such as sexism, have found that invoking perceivers' sense of fairness can ameliorate such biases. To ascertain whether such a strategy might also mitigate the bias that we have observed thus far in the present research, we adopted a fairness intervention in Study 4 by asking participants to make their judgments objectively. Given that Koch et al. (2015) found that careful decision-making (as through highlighting fairness) only ameliorated gender biases for male-dominated jobs, we expected that this manipulation might only affect participants' evaluations of gay and straight men as engineers (a male-dominated profession) but perhaps not as nurses (a female-dominated profession).

Study 4

We randomly assigned 100 working adults from MTurk (36 male, 64 female; $M_{\text{Age}} = 36.2$ years, $SD = 12.0$; 85 heterosexual, 15 gay, bisexual, or other) to complete the same nursing ($n = 50$) and engineering ($n = 50$) evaluation tasks from Study 3A. Rather than instructing participants to base their ratings of the targets on their first impressions, however, we instead told them to make their decisions as fair and objective as possible (see Appendix S1 for exact instructions). Two participants in the nursing condition failed the comprehension-check question about the maximum possible GPA and so we excluded them from analysis. We again analyzed the data using multilevel models with the same parameters as in Study 3A to assess the effects of the targets' sexual orientation and ostensible GPA on participants' ratings of their likely success as a nurse or engineer (respective to condition; see Table S4 in the Supplemental Materials for simple correlations).

Results

Nursing condition. Similar to Study 3A, we again observed main effects of GPA, $B = -1.99$, $SE = 0.05$, $t(3467.20) = -42.63$, $p < .001$, $r_{\text{Effect Size}} = -.59$, and Sexual Orientation, $B = 0.12$, $SE = 0.03$, $t(2158) = 3.46$, $p = .001$, $r_{\text{Effect Size}} = .07$. Confirming our manipulation, participants evaluated targets presented with high GPAs ($M = 5.63$, $SD = 1.27$) as more likely to get jobs as nurses than targets presented with low GPAs ($M = 3.60$, $SD = 1.41$). More critical, despite instruction to make their decisions fairly, participants continued to evaluate gay targets ($M = 4.65$, $SD = 1.67$) as better suited for positions as nurses than straight targets ($M = 4.58$, $SD = 1.70$). GPA and Sexual Orientation did not significantly interact, $B = -0.07$, $SE = 0.05$, $t(2158) = -1.52$, $p = .13$, $r_{\text{Effect Size}} = -.03$. Adding neither participants' gender nor hiring experience perturbed this pattern of results (see Table 2).

Engineering condition. In distinction, participants instructed to consider the fairness of their decisions did not evaluate the gay ($M = 4.78, SD = 1.58$) and straight ($M = 4.79, SD = 1.60$) targets significantly differently for positions as engineers, $|B| < 0.01, SE = 0.03, t(2248) = 0.12, p = .90, r_{\text{Effect Size}} < .01$. They did, however, continue to show the main effect of GPA [$M_{\text{High GPA}} = 5.74, SD = 1.10; M_{\text{Low GPA}} = 3.84, SD = 1.43; B = -1.89, SE = 0.04, t(3492.63) = -44.70, p < .001, r_{\text{Effect Size}} = -.60$]. No other main effects or interactions, including participants' gender or hiring experience, yielded significant effects (all $|t|s \leq 1.96$, all $ps \geq .05$, all $|r|s_{\text{Effect Size}} \leq .04$).

Discussion

Instructing participants to provide fair and objective assessments of job candidates partly eliminated biases based on sexual orientation. Participants evaluating gay and straight men for positions as engineers showed no significant advantage in favor of straight men over gay men, as they had in Studies 1-3A. Participants evaluating the men for positions as nurses, however, continued to give more favorable ratings to gay men than to straight men. This asymmetry accords with past research on the effects of decision-making interventions in reducing gender-based role congruity biases (see Koch et al., 2015). Specifically, asking participants to make fair and unbiased judgments mitigated differences in evaluations between men and women in past work, and may have helped to reduce differences between gay and straight men in the current study for male-dominated jobs. Despite giving more positive ratings to targets with higher GPAs, participants in the nursing condition continued to show an influence of the targets' facial appearance in their judgments here and in Study 3A. Overt performance-diagnostic information about the targets' abilities (i.e., their GPAs) therefore did not eliminate group-based favoritism whereas instructing participants to make their judgments fairly did seem to have some mitigating effect. We combined both the GPA and fairness manipulations in the current study, however,

obscuring whether the fairness manipulation accounted for participants' more equitable decisions itself (by contrast to the results of Study 3A, which showed similar effect sizes in the nursing condition but changed noticeably in the engineering condition) or if the reduction in bias occurred because of the combination of the GPA and fairness manipulations; disentangling this potential confound would require further testing.

Nevertheless, people not only seem to read sexual orientation from the face without provocation (e.g., Rule, Macrae, & Ambady, 2009) but also appear to use this information in a way that influences individuals' opportunities and outcomes. Although rather small, the pattern of effect sizes that we observed continued to support the aversive bigotry account outlined above, suggesting that the diagnostic nature of the objective GPA information forestalled the ambiguity needed for individuals to judge the targets without challenging their presumed sense of equity. Notably, accounting for participants' hiring experience annulled the main effect of sexual orientation in Study 3A but not here or in Study 2. Thus, neither participants' gender nor hiring experience seem to reliably alter perceptions of job suitability based on sexual orientation.

So far, we have only examined job suitability differences based on sexual orientation in a few distinct professional categories. To determine whether these discrepancies might also emerge in other domains, we examined how perceptions of the occupational fit of gay and straight men might apply to more subtle differences within single fields in Study 5. In addition, rather than ask participants to make external predictions about each individual's success, we asked them to take on the hypothetical role of a consumer soliciting the services of each man as a physician (Study 5A) or teacher (Study 5B).

Study 5A

We instructed 127 undergraduate participants that they would see a series of faces of individuals who would soon graduate from local medical schools and were applying for residency training as either a pediatrician (a sub-discipline of medicine characterized by more communal traits, $n = 69$) or as a surgeon (a sub-discipline of medicine characterized by more agentic traits, $n = 58$; Feldman-Summers & Kiesler, 1974).⁷ We asked the participants to rate how much they would want each target to be the pediatrician (surgeon) for someone they cared about on a scale ranging from 1 (*Not at all*) to 7 (*Very much*) based on the photos of gay and straight men used in Study 1 (90 trials total).

Results

The results of a 2 (Condition: pediatrician, surgeon) \times 2 (Sexual Orientation: gay, straight) ANOVA with repeated measures on the second factor revealed no main effect of Condition, $F(1, 125) = 1.25, p = .27, r_{\text{Effect Size}} = .10$, but a significant main effect of Sexual Orientation, $F(1, 125) = 56.01, p < .001, r_{\text{Effect Size}} = .56$, and a significant Condition \times Sexual Orientation interaction, $F(1, 125) = 8.08, p = .005, r_{\text{Effect Size}} = .25$. Bonferroni-corrected decomposition of these effects ($\alpha = .025$) showed that participants rated gay men as less desirable than straight men both as surgeons ($M_{\text{Gay}} = 3.42, SD = 0.94; M_{\text{Straight}} = 3.81, SD = 0.91$), $t(57) = 6.30, p < .001, r_{\text{Effect Size}} = .64$, and as pediatricians ($M_{\text{Gay}} = 3.69, SD = 0.89; M_{\text{Straight}} = 3.87, SD = 0.82$), $t(68) = 3.83, p < .001, r_{\text{Effect Size}} = .42$, though the effect was greater for the former than for the latter (see Figure 2).

Discussion

Despite the stereotypical associations corresponding to pediatricians and surgeons as relatively communal and agentic, respectively, participants who imagined commissioning the services of men as physicians showed a general bias in favor of straight men (or against gay

men). Although we did not mention sexual orientation at any point, perceptions of the targets' faces led the participants to prefer straight men over gay men both as pediatricians and surgeons. This may be unsurprising, given that medicine remains a heavily male-dominated profession overall, and as individuals might hold specific biases against the idea of a gay man interacting intimately with children as a pediatrician (Fikar, 1992; Lautenberger, Dandar, Raezer, & Sloane, 2014). However, the stereotypicality of the two medical sub-specialties did attenuate this difference: Participants preferred straight men over gay men as surgeons (the agentic subspecialty) to a significantly larger extent than they did as pediatricians (the communal subspecialty) with an effect size similar to that found for the exclusively face-based judgments in Studies 1-2, again suggesting that the ambiguity of the information available might have exacerbated the observed sexual orientation differences in a manner consistent with aversive bigotry. Thus, although the ultimate outcome favors straight men in medicine, these data still show evidence of role congruity effects.

Study 5B

In Study 5B, we wanted to also examine how men's sexual orientation might influence their professional success within a single professional domain that may be less male-dominated than medicine. Thus, we asked participants to imagine themselves in the position of a consumer in an occupation with more common and pronounced stereotypes: schoolteachers. Using the same stimuli as in Study 1, 93 undergraduate participants rated how likely they would be to choose each target as their child's English ($n = 49$) or math ($n = 44$) teacher along a scale ranging from 1 (*Not at all likely*) to 7 (*Very likely*) across 90 trials. Given that stereotypes about the humanities versus sciences tend to characterize the former as more feminine than the latter, we expected that participants might perceive gay men as more appropriate English teachers and

straight men as more appropriate math teachers, consistent with predictions based on Role Congruity Theory (Eagly & Karau, 2002) and the Lack of Fit Model (Heilman, 1983).

Results

The results of a 2 (Condition: English teacher, math teacher) \times 2 (Sexual Orientation: gay, straight) ANOVA with repeated measures on the second factor showed that neither Condition, $F(1, 91) = 0.03, p = .86, r_{\text{Effect Size}} = .02$, nor Sexual Orientation, $F(1, 91) = 1.37, p = .25, r_{\text{Effect Size}} = .12$, significantly predicted school teacher desirability. The Condition \times Sexual Orientation interaction did reach significance, however, $F(1, 91) = 15.49, p < .001, r_{\text{Effect Size}} = .38$. Bonferroni-corrected ($\alpha = .025$) simple effects t -tests within each condition showed that participants rated the gay men ($M = 3.79, SD = 0.77$) as more desirable English teachers than the straight men ($M = 3.66, SD = 0.76$), $t(48) = 2.33, p = .02, r_{\text{Effect Size}} = .31$, and rated the straight men ($M = 3.88, SD = 0.69$) as more desirable math teachers than the gay men ($M = 3.63, SD = 0.71$), $t(43) = 3.10, p = .003, r_{\text{Effect Size}} = .43$; see Figure 3.

Discussion

These differences accord with stereotypes about the humanities as a relatively feminine field and science/math as a relatively masculine field (e.g., Storer, 1967), providing further evidence for role congruity and lack-of-fit effects in evaluations of gay and straight men's job suitability. The data therefore suggest that cues to sexual orientation in an individual's face could affect perceptions of his appropriateness for a professional position as a math or English teacher. The effect sizes again suggested that participants might show greater sexual orientation biases when judging targets based on ambiguous information (i.e., just faces), as one might expect in instances of aversive bigotry (see Dovidio & Gaertner, 2000). Yet, although previous studies have suggested that perceivers automatically perceive sexual orientation from faces outside of

conscious awareness (e.g., Rule et al., 2007; Rule, Macrae, & Ambady, 2009), we wished to explicitly test our assumption that cues to sexual orientation account for the differences in evaluations that we have observed in this research. We therefore tested the contributions of perceived sexual orientation and two of its known correlates (masculinity/femininity and facial affect) as mediators of the relationship between actual sexual orientation and perceived occupational suitability by reanalyzing the data from Studies 1, 2, 5A, and 5B in Study 6.⁸

Study 6

To better understand the factors involved in individuals' naïve but distinct evaluations of gay and straight men, we recruited 93 MTurk workers (50 male, 43 female; $M_{Age} = 38.2$ years, $SD = 13.0$; 87 heterosexual, 6 gay, bisexual, or other) to rate all 90 faces employed in the studies reported above. Approximately one-third ($n = 33$) rated the targets' likely sexual orientation from 1 (*Definitely gay*) to 7 (*Definitely straight*), about one-third ($n = 30$) rated their masculinity/femininity from 1 (*Masculine*) to 7 (*Feminine*), and the remaining third ($n = 30$) rated their positive affect from 1 (*Not at all happy*) to 7 (*Very happy*); none of the ratings differed according to the participants' gender ($|t|s \leq 1.19$, $ps \geq .24$, $|r|s_{Effect\ size} \leq .21$).⁹ Choosing a more conservative design in which separate groups of perceivers provided judgments of the targets allowed us to model both the targets and perceivers as random in our models, supporting greater generalization to other possible perceivers and targets (see Antonakis, Fenley, & Liechti, 2011; Rosenthal & Rosnow, 2008) and avoiding potential biases due to common method variance (see Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We did not manipulate or mention jobs to the participants.

Results

Data preparation. We aggregated the ratings across participants for every target such that each had a mean score for perceived sexual orientation (inter-rater agreement ICC = .87), a mean score for masculinity/femininity (inter-rater agreement ICC = .86), and a mean score for affect (inter-rater agreement ICC = .97). Because we sought to examine the degree to which participants preferred any given candidate for one type of job versus another, we used the mean (consensus) scores for each of the judgments in the three domains to calculate difference scores with the targets serving as the unit of analysis.¹⁰ Specifically, we subtracted the mean score given to each target for his suitability as a nurse from that for his suitability as an engineer using the aggregated data from Studies 1 and 2, subtracted the mean score for each target's desirability as one's pediatrician from the mean score for his desirability as one's surgeon using the data from Study 5A, and subtracted the mean score for each target's desirability as one's child's English teacher from the mean score for his desirability as one's child's math teacher using the data from Study 5B.¹¹ These three difference scores served as the dependent variables in the three respective models described below and represented a consensually agreed upon preference for the candidate in a more stereotypically agentic versus communal profession.

Data modeling. We analyzed the data using path analysis (see Table S5 in the Supplemental Materials for bivariate correlations). We hypothesized that actual sexual orientation would predict the differences in preference for the candidates as a function of perceptions of sexual orientation, masculinity, and affect. Thus, we specified three serial multiple mediation models, whereby actual sexual orientation predicted perceptions of sexual orientation, masculinity, and affect; masculinity and affect also predicted perceptions of sexual orientation; and all three predicted ratings of the candidates as engineers versus nurses, as surgeons versus pediatricians, and as math versus English teachers, respectively. Given that previous research has

suggested that both masculinity and affect simultaneously and independently predict accurate perceptions of male sexual orientation (Tskhay & Rule, 2015), and that perceptions of sexual orientation affect gay men's life outcomes (Pichler et al., 2010), this model allowed us to test whether people's accurate inferences of sexual orientation via masculinity and affect would result in job suitability biases based on sexual orientation. Accordingly, we specified all direct effects between the variables and the covariance between perceptions of masculinity and affect, evaluating the significance of the indirect effects using the product of coefficients method (Preacher & Hayes, 2008) by drawing 5000 bootstrapped resamples and examining whether the 95% confidence intervals included 0 to evaluate statistical significance at $\alpha = .05$ (see Figures 4-6 for graphical representations of the models with parameter estimates).

Model parameters. The total effects showed that actual sexual orientation predicted differences in job suitability in all three models (see Table 3). Consistent with the findings reported above, the direct effect from actual sexual orientation to the engineer-nurse and math-English teacher difference scores was significant, whereas the direct effect between actual sexual orientation and the surgeon-pediatrician difference scores was not.

More important, perceived sexual orientation mediated the relationship between actual sexual orientation and both the engineer-nurse and math-English teacher difference scores independent of the other variables. Additionally, affect mediated the relationship between actual sexual orientation and the engineer-nurse, surgeon-pediatrician, and math-English teacher difference scores. Masculinity/femininity did not emerge as a significant mediator, nor were any of the combined effects of the three mediators statistically reliable (as reflected in the non-significant serial mediation effects).

Discussion

These results collectively show that participants' discrepant judgments of gay and straight targets for the three sets of professions arose due to general perceptions of their sexual orientation and evaluations of their positive affect. Masculinity/femininity, however, showed no significant influence on job suitability ratings. Previous research has shown that both affect and masculinity/femininity uniquely contribute to explaining the relationship between actual and perceived sexual orientation (Tskhay & Rule, 2015) and that affect is entwined with perceptions of sex and gender (e.g., Hess et al., 2005). Importantly, although perceptions of positive affect explained the discrepancies in ratings given to the gay and straight targets for all three sets of professions here, it influenced these differences independent of its relationship to perceived sexual orientation and masculinity/femininity. Thus, people do not appear to simply regard men displaying greater levels of positive affect as better equipped to work as nurses, pediatricians, and math teachers. Rather, affect contributes to these differences without fully accounting for the additional influence of gestalt assessments of targets' sexual orientation.

Despite not predicting job-rating differences, masculinity/femininity did mediate the relationship between actual and perceived sexual orientation, consistent with previous research (e.g., Rieger et al., 2010). The important influence of gender atypicality on perceptions of sexual orientation notwithstanding, previous research has similarly found that masculinity/femininity is not isomorphic with perceptions of sexual orientation (e.g., Freeman et al., 2010; Tskhay & Rule, 2015). Likewise, other cues beyond masculinity/femininity relevant to sexual orientation and facial cues may impact differences in the perceived job suitability of gay and straight men. Specifically, perceptions of affect and global inferences of sexual orientation predicted differences between gay and straight targets' perceived suitability better than masculinity/femininity did across all three sets of professions. Notably, we solicited

masculinity/femininity ratings because of their direct relationships with perceptions of sexual orientation (e.g., Rieger et al., 2010) and with agency/communion. However, just as there is unshared variance between masculinity/femininity and sexual orientation, agency/communion may not perfectly correlate with masculinity/femininity, either. Thus, perhaps our results are limited by not using more relevant terms.

Although these findings do not directly support our original hypothesis that the agency/communion of particular jobs would explain why gay and straight men were deemed less suitable for them, this does not obviate the applicability of Role Congruity Theory (Eagly & Karau, 2002) nor its progenitor, the Lack of Fit Model (Heilman, 1983), to understanding the differences that we observed. Whereas those conceptualizations have centered primarily on the way that gender roles (principally, masculinity/femininity) influence workplace outcomes, the present data suggest that unique roles for other stereotypical characteristics related to sexual orientation may exist as well. These data might therefore help to broaden the theoretical impact of that work by extending it to other social dimensions apart from gender and its immediate correlates, as a growing body of research has done for perceptions of race (e.g., Sy et al., 2010) but none, to our knowledge, has yet done for perceptions of sexual orientation.

Moreover, further research might help to decompose perceived sexual orientation into its more basic elements to add tangibility to this result. The lack of significant serial mediation effects suggests that masculinity/femininity and affect did not centrally contribute to the influence that perceived sexual orientation had upon differences in ratings of targets' job suitability. Although other components of perceived sexual orientation may help to resolve its relationship with the job suitability ratings, gestalt judgments of perceived sexual orientation that exceed its constituent parts could also account for these differences. Just as the base elements of

what comprises perceptions of sexual orientation are not entirely known, future work may seek to explore which of its undocumented aspects account for differences in gay and straight men's perceived fit for particular jobs.

General Discussion

Subtle perceptions of sexual orientation based on men's faces may influence the opportunities they have to obtain jobs and succeed in particular professions. Across four domains, gay and straight men's facial appearance seemed to guide how suitable participants deemed them for various occupations. Without mentioning sexual orientation at any point, participants construed gay men towards stereotypically communal professions and straight men towards stereotypically agentic professions, despite ostensibly equal qualifications.

Accordingly, participants anticipated that gay men would more likely succeed in obtaining jobs as nurses when we described both the gay and straight individuals as having recently graduated from a local nursing program. In complement, when we presented the same faces under an identical scenario that substituted engineering for nursing, participants rated the straight men as significantly more likely to succeed in getting hired. This bias persisted across participants with a variety of backgrounds, ranging from undergraduates to employers. Yet consistent with past work (Koch et al., 2015), appealing to participants' sense of fairness helped to mitigate their biased assessment for male-dominated professions but not female-dominated professions. Thus, these effects appear to be both insidious (possibly relying on implicit processing of the targets' group membership) and robust.

Moreover, perceived sexual orientation also affected individuals' decisions about from whom they would solicit a variety of services. When imagining themselves in the circumstance of needing a physician to treat a loved one, participants preferred straight men over gay men.

This applied both when hypothetically seeking either a surgeon (a stereotypically agentic medical subspecialty) or pediatrician (a stereotypically communal medical subspecialty; Feldman-Summers & Kiesler, 1974). Overall, participants therefore preferred physicians that looked particularly heterosexual, though they favored straight men as surgeons significantly more than as pediatricians. Individuals also showed biases about whom they would rather teach their children. When asked to imagine considering upcoming graduates as potential instructors, participants preferred gay men as English teachers and straight men as math teachers—consistent with stereotypes about the humanities as a “softer” and more feminine domain of study, and math as a “harder” and more masculine field (Storer, 1967).

Various factors mitigated these differences. Supplying participants with directly diagnostic information about the candidates’ qualifications by presenting the targets with their ostensible GPAs resulted in heavy reliance upon the GPA scores for judging job suitability. Though the information about sexual orientation available in the face still seemed to exert an effect ($|\bar{r}|_{\text{Effect size}} = .06$, 95% CI [.04, .08]) the effect sizes declined substantially compared to judgments of only the face ($|\bar{r}|_{\text{Effect size}} = .58$, 95% CI [.46, .67]). Adding the instruction to make fair decisions reduced sexual orientation differences further for a male-dominated profession (i.e., engineering, $|r|_{\text{Effect size}} < .01$; see also Koch et al., 2015). When evaluating targets in the midst of additional credentials (pared LinkedIn profiles; $r_{\text{Effect size}} = .29$), however, participants’ biases again emerged.

Previous accounts of aversive bigotry might help to explain this superficially ironic effect. For example, Dovidio and Gaertner (2000) observed that individuals displayed racially biased preferences in simulated hiring decisions only when candidates’ qualifications were ambiguous, presumably because it allowed for some sense of plausible deniability that race

motivated one's decision. When targets possessed obviously weak or strong qualifications (similar to our GPA information), participants based their decisions on the clear criteria. In our studies, the faces provided a consistent ambiguous context, particularly as individuals tend not to believe that they can judge sexual orientation from such limited cues (Rule et al., 2008). The subjective and multivariate information provided by LinkedIn profiles continued to allow much ambiguity, though we still observed an attenuation of the sexual orientation bias. Given the many differences between this study and those showing only faces, additional work should test this effect-size variability further to better account for the potential role of aversive bigotry in the present findings. However, the pattern of effects in the current work deserves consideration.

Importantly, the masculinity/femininity of the men's faces did not account for the discrepancies we observed, contrary to our initial expectations. Rather, direct perceptions of targets' sexual orientation and positive facial affect explained the differences. Previous work has demonstrated that individuals can reliably infer others' sexual orientation from minimal nonverbal information, albeit less accurately (64.5%, on average; Tskhay & Rule, 2013) than the near-perfect performance for social categorization in some other domains (99.2% for race; Remedios et al., 2011), and that positive affect largely explains this discriminability (Tskhay & Rule, 2015). The considerable error in judging sexual orientation nevertheless generates a wide margin of ambiguity. Consequently, perceivers report little knowledge of their ability to accurately judge sexual orientation (Brambilla, Riva, & Rule, 2013; Rule et al., 2008) and tend to process sexual orientation cues unconsciously (e.g., Rule et al., 2007; Rule, Macrae, & Ambady, 2009). Interestingly, we observed here that holistic perceptions of targets' sexual orientation group membership independently explained biases in their perceived suitability for different jobs. This suggests that perceivers may have nonconsciously evaluated the targets' group

membership when rating them. Ascertaining exactly what constitutes these gestalt perceptions of sexual orientation independent of gender atypicality and affect would require additional investigation, however. For instance, more direct assessment of how perceptions of sexual orientation relate to perceptions of agency and communion (higher-order traits also supported by masculinity/femininity) might help to elucidate this and help to explain the differences in the evaluation of gay and straight men for particular professions that we have observed.

Unlike earlier studies showing biases in evaluations of job suitability when sexual orientation is explicit (e.g., Horvath & Ryan, 2003), the present data may suggest that evaluators express biases based on sexual orientation unknowingly (though additional research on implicit processing would need to test this directly). The current research therefore combines the past literature on workplace biases with the literature on the legibility of sexual orientation from minimal cues. Yet our observation that such workplace biases occur via ambiguous sexual orientation cues may render the whole greater than the sum of its parts, contributing to both literatures in a way that neither might achieve alone. Specifically, demonstrating that subtle markers of sexual orientation could potentially influence hiring behaviors helps to better inform researchers and practitioners as to how minimal cues to sexual orientation may affect hiring and promotion decisions. Complementarily, showing that perceptions of indirect information about group membership can influence applied outcomes in the real world helps to advance the work of researchers in social psychology about the impact of stigma concerning group memberships that are not obvious.

More directly, these data suggest interesting implications for the occupational success of men according to their sexual orientation. In each study, participants considered individuals as forthcoming candidates for particular professions. In Studies 1-4, they expressed the expectation

that men would experience different levels of success obtaining professional positions as a function of their sexual orientation. In Study 5, they indicated personal preferences that, in the real world, would directly impact the targets' success in consumer-driven markets. Thus, though limited to controlled experiments, the present data may portend real events that could meaningfully influence individuals' opportunities and success.

For instance, patients' feelings towards their physicians may not only determine their choice of physician, but also affect their ongoing relationships with them (e.g., Zolnierek & DiMatteo, 2009). For example, one study suggested that patients might be more likely to sue their surgeons for malpractice if they do not like the surgeon's vocal tone (Ambady, LaPlante, Nguyen, Rosenthal, Chaumeton, & Levinson, 2002). Given the subjective nature of such judgments (but with serious consequences), we might speculate that implicit perceptions of physicians' sexual orientation could potentially affect physician outcomes, or even the selection of students for medical school and residency (see Fikar, 1992).

Similarly, participants in Study 5B distinguished who they would want teaching their children in math and English according to the candidates' sexual orientation. Given that parents' satisfaction with their children's teachers can influence learning (e.g., Hughes & Kwok, 2007), one might surmise that intuitive impressions like these could impact a teacher's professional success. Indeed, in many cases, schools assign teachers to subject areas based on need, rather than training or personal preference (e.g., Ingersoll, 1999). Thus, if principals displayed similar biases as the participants in our study did, they might unconsciously shunt gay men into teaching English and straight men into teaching math. Such assignment may not correspond with a teacher's actual skills, however, and could therefore affect his apparent professional competence (e.g., a gay man skilled in teaching math may not fare well as an English teacher) by

undermining his self-confidence and overall performance (as predicted by the Lack of Fit Model; Heilman, 1983). Although these possibilities are speculative, they are not insensible. The present work may therefore represent a first step towards understanding how facial cues to sexual orientation might influence individuals' outcomes in ways that could potentially foreclose opportunities for their success in stereotypically incongruent positions.

Our findings may also suggest consequences for professional success that would affect not just individuals but organizations and broader society as well. Previous work has shown that people may direct others towards different professions based on their perceived fit with particular roles (e.g., Heilman, 1983). Indeed, this can occur due to judgments based on facial appearance (Collins & Zebrowitz, 1995). If appearances do not correspond with abilities, however, this might preclude individuals from succeeding in such positions. The cumulative effect of assigning people to jobs based on appearance rather than qualifications could therefore result in organizational inefficiencies that would also affect the customers and end-users of various professional services, as well as the broader function and efficiency of an economic system (locally and nationally). Thus, these data raise important considerations for job outcomes at multiple levels of society worth exploring in future work.

Future researchers might likewise consider how perceptions of sexual orientation may manifest in job interviews. Given the ubiquity of face-to-face interviews for candidate selection (Ryan, McFarland, Baron, & Page, 1999) and the evidence that stigmatized appearances can impact interview outcomes (e.g., Madera & Hebl, 2012), the present findings suggest that an interviewer's intuitive impression of a candidate's sexual orientation might critically influence whether he or she gets hired for a job. Additionally, individuals feeling self-conscious about their sexual orientation in a job interview might perform worse because of the load that such self-

monitoring might place on cognition (see Everly, Shih, & Ho, 2011). Moreover, Sylva, Rieger, Linsenmeier, and Bailey (2010) found that people did not effectively conceal their sexual orientation in a mock interview, and Knöfler and Imhof (2007) observed that people altered their nonverbal behavior when interacting with a sexual minority group member, even when they did not explicitly know that their interaction partner differed in sexual orientation. These findings, along with those of Study 3B, suggest that individuals could very well emit cues to their sexual orientation in job interviews to deleterious effect. As the present work can only speculate about this, however, it remains an open question for future research.

Indeed, a key question concerns whether facial appearance might affect employers and customers when selecting job applicants and service providers in the real world rather than in the lab. Accumulating data suggest that they would. Emerging studies across numerous domains have found that facial appearance strongly influences how people evaluate others even when considering much more credible, reasonable, and accessible diagnostic knowledge about them (e.g., Blair et al., 2005). Field studies mirror these effects to a shocking extent: for instance, defendants' facial appearance significantly sways judges and juries even to the point of determining capital execution (Eberhardt et al., 2006; Wilson & Rule, 2015). As illogical and insensible as they may seem, biases based on facial appearance can thus exert very real and extreme outcomes. Ample evidence therefore suggests that the hypothetical decisions studied here would replicate in real life and that appearance-based cues to sexual orientation likely do influence individuals' job success. Nevertheless, direct tests of this remain outstanding.

Moreover, given that we collected many of these data from a politically-liberal undergraduate population in a notoriously politically-liberal U.S. city (Boston, MA)—especially with regard to gay rights—one might expect stronger effects in more conservative contexts. For

example, controversy around gay men as school teachers led to many dismissals in various parts of the U.S. in recent decades (e.g., Griffin, 1992). Based on these accounts, one might expect people to prefer straight men as teachers over gay men regardless of subject (cf. Study 5B). This remains an interesting direction for future research, particularly as the sociopolitical landscape around dispositions towards sexual minorities has changed sharply in recent years (Pew Research Center, 2013; Smith, 2013).

Likewise, the present research leaves open an account of the conditions within perceivers that might motivate the biases we observed. For instance, do these outcomes result from prejudicial attitudes, beliefs about the controllability of homosexuality, or limited familiarity with sexual minorities (e.g., Horvath & Ryan, 2003)? Consideration of these possibilities could benefit future research into mechanisms beyond role congruity and lack-of-fit for better understanding how sexual orientation influences evaluations of job suitability, particularly as factors beyond masculinity/femininity explained the differences that we observed here. Moreover, future work might also consider how information about individuals that challenges stereotypes about their sexual orientation might help to combat or overcome these biases, and to investigate their instantiation among female targets for whom sexual orientation is typically more legible, though still ambiguous (e.g., Lyons, Lynch, Brewer, & Bruno, 2014; Rule, Ambady, & Hallett, 2009; Tabak & Zayas, 2012).

Conclusion

Men's facial appearance may therefore play some role in their occupational success. In particular, impressions of men's sexual orientation from photos of their faces seem to affect judgments of their expected effectiveness across a variety of professions. Such prejudices could eschew the opportunities afforded to individuals, not only affecting hiring and promotion but

also self-selection into roles believed to offer a greater probability of success due to stereotypes, potentially creating a cyclical process. This warrants a closer look at the underlying mechanisms and consequences of stereotype-based workplace discrepancies, particularly given that they may occur even among ambiguous group distinctions like sexual orientation, which perceivers process subtly and without awareness.

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Table 1

Unstandardized Parameter Estimates for Multi-Level Models Predicting Participants' Ratings of Targets' Success in Study 3A

Predictor	Nursing Condition			Engineering Condition		
	Main Model	Gender	Exp	Main Model	Gender	Exp
Intercept	5.70 (0.11)***	5.64 (0.16)***	5.50 (0.55)***	5.62 (0.13)***	5.72 (0.21)***	6.12 (0.48)***
SO	0.10 (0.03)**	0.12 (0.05)*	-0.20 (0.17)	-0.07 (0.03)*	-0.09 (0.05)	-0.01 (0.11)
GPA	-1.89 (0.05)***	-1.52 (0.07)***	-0.76 (0.23)**	-2.11 (0.04)***	-2.17 (0.07)***	-1.89 (0.16)***
SO × GPA	-0.07 (0.05)	-0.14 (0.07)*	0.27 (0.23)	0.06 (0.04)	0.15 (0.07)*	0.15 (0.16)
Gender		0.11 (0.22)			-0.18 (0.27)	
SO × Gender		-0.04 (0.07)			0.04 (0.06)	
GPA × Gender		-0.68 (0.09)***			0.11 (0.07)	
SO × GPA × Gender		0.13 (0.09)			-0.15 (0.09)	
Exp			0.21 (0.56)			-0.55 (0.50)
SO × Exp			0.32 (0.17)			-0.06 (0.12)
GPA × Experience			-1.17 (0.23)***			-0.23 (0.17)
SO × GPA × Exp			-0.35 (0.24)			-0.11 (0.17)

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; Standard errors in parentheses. Exp = hiring experience [-1 = *No*, 1 = *Yes*], SO = sexual orientation [-1 = *Gay*, 1 = *Straight*], GPA = grade-point average [-1 = *Low*, 1 = *High*].

Table 2

Unstandardized Parameter Estimates for Multi-Level Models Predicting Participants' Ratings of Targets' Success in Study 4

Predictor	Nursing Condition			Engineering Condition		
	Main Model	Gender	Exp	Main Model	Gender	Exp
Intercept	5.57 (0.12)***	5.45 (0.19)***	5.42 (0.18)***	5.73 (0.12)***	5.53 (0.20)***	5.76 (0.18)***
SO	0.12 (0.03)***	0.13 (0.05)*	0.15 (0.05)**	0.00 (0.03)	-0.03 (0.05)	0.00 (0.05)
GPA	-1.99 (0.05)***	-1.86 (0.07)***	-2.07 (0.07)***	-1.89 (0.04)***	-1.90 (0.07)***	-2.00 (0.07)***
SO × GPA	-0.07 (0.05)	-0.12 (0.07)	-0.10 (0.07)	-0.02 (0.04)	0.05 (0.07)	0.01 (0.07)
Gender		0.20 (0.25)			0.31 (0.25)	
SO × Gender		-0.02 (0.07)			0.05 (0.06)	
GPA × Gender		-0.23 (0.09)*			0.01 (0.09)	
SO × GPA × Gender		0.08 (0.10)			-0.10 (0.09)	
Exp			0.29 (0.24)			-0.04 (0.24)
SO × Exp			-0.06 (0.07)			0.00 (0.06)
GPA × Experience			0.14 (0.09)			0.17 (0.09)
SO × GPA × Exp			0.04 (0.10)			-0.05 (0.09)

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; Standard errors in parentheses. Exp = hiring experience [-1 = *No*, 1 = *Yes*], SO = sexual orientation [-1 = *Gay*, 1 = *Straight*], GPA = grade-point average [-1 = *Low*, 1 = *High*].

Table 3

Unstandardized Regression Coefficients, Standard Errors, and 95% Confidence Intervals for the Total and Indirect Effects in the Serial Multiple Mediation Analyses in Study 6

	Engineer - Nurse			Surgeon - Pediatrician			Math – English Teacher		
	<i>B (SE)</i>	LL	UL	<i>B (SE)</i>	LL	UL	<i>B (SE)</i>	LL	UL
Total Effect	0.29 (0.05)	0.22	0.37	0.10 (0.03)	0.03	0.16	0.19 (0.04)	0.11	0.27
Indirect Effects									
Perceived SO	0.04 (0.02)	0.01	0.08	0.00 (0.02)	-0.03	0.03	0.07 (0.02)	0.02	0.11
Masc	-0.01 (0.01)	-0.03	0.02	0.02 (0.01)	0.00	0.05	-0.04 (0.02)	-0.08	0.00
Affect	0.06 (0.03)	0.01	0.11	0.03 (0.02)	0.00	0.06	0.03 (0.01)	0.01	0.06
Serial (Masc)	0.01 (0.01)	0.00	0.04	0.00 (0.01)	-0.01	0.01	0.02 (0.01)	0.00	0.04
Serial (Affect)	0.01 (0.01)	0.00	0.02	0.00 (0.00)	0.00	0.01	0.01 (0.01)	0.00	0.02
Direct Effect	0.15 (0.04)	0.07	0.23	0.05 (0.04)	-0.02	0.12	0.16 (0.05)	0.07	0.25

Note. Values rounded to two decimal places; significant effects indicated in boldface. LL = Lower Limit of the 95% confidence interval, UL = Upper Limit of the 95% confidence interval, Perceived SO = perceived sexual orientation (greater scores represent

greater likelihood of construing the target as straight), Masc = scores on the masculinity/femininity measure (greater scores represent greater masculinity), Serial = overall indirect effect through both perceived sexual orientation and trait indicated in parentheses.

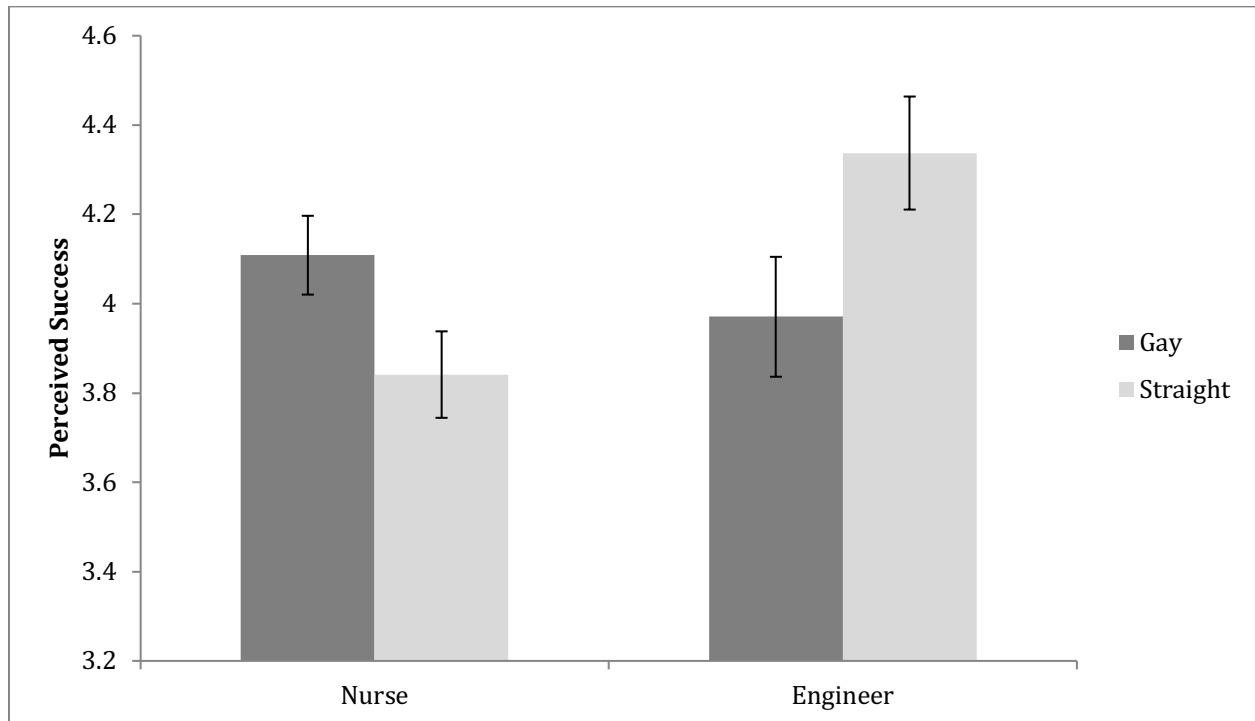


Figure 1. Means and standard errors of ratings of the expected success of gay and straight men in attaining jobs as nurses and engineers (between-subjects) in Study 1.

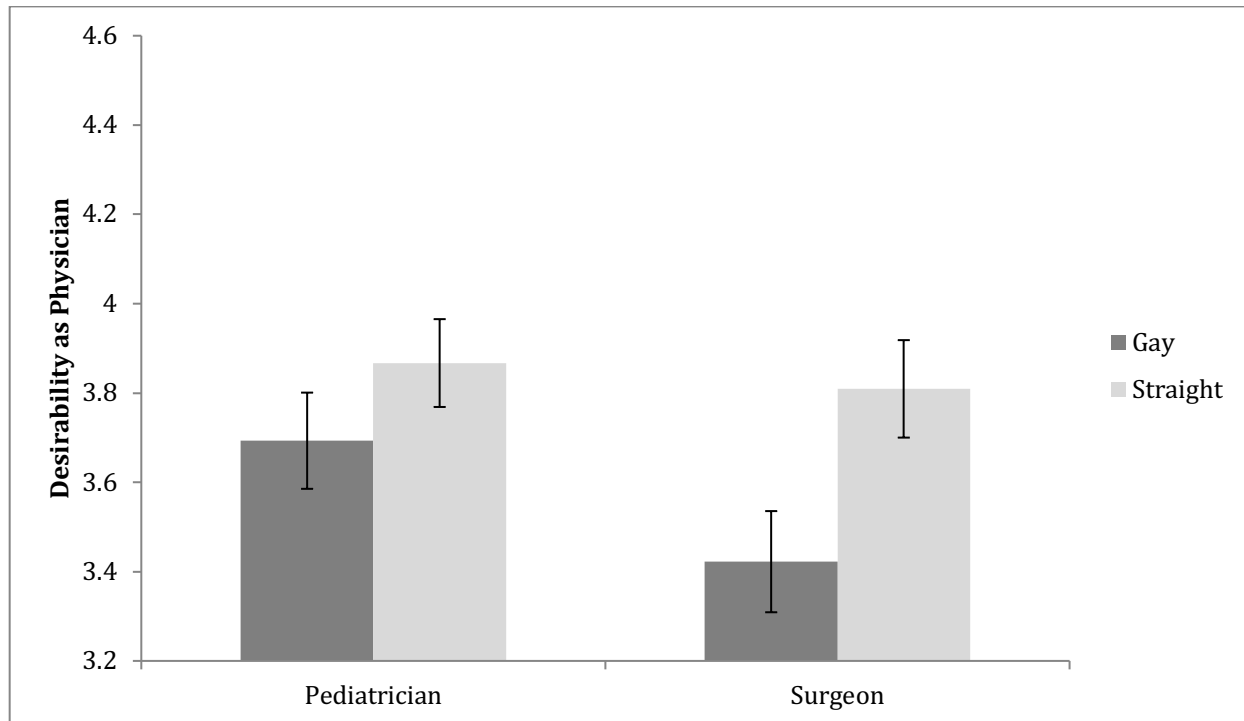


Figure 2. Means and standard errors of participants' likelihood of selecting gay and straight men as a pediatrician and surgeon (between-subjects) in Study 5A.

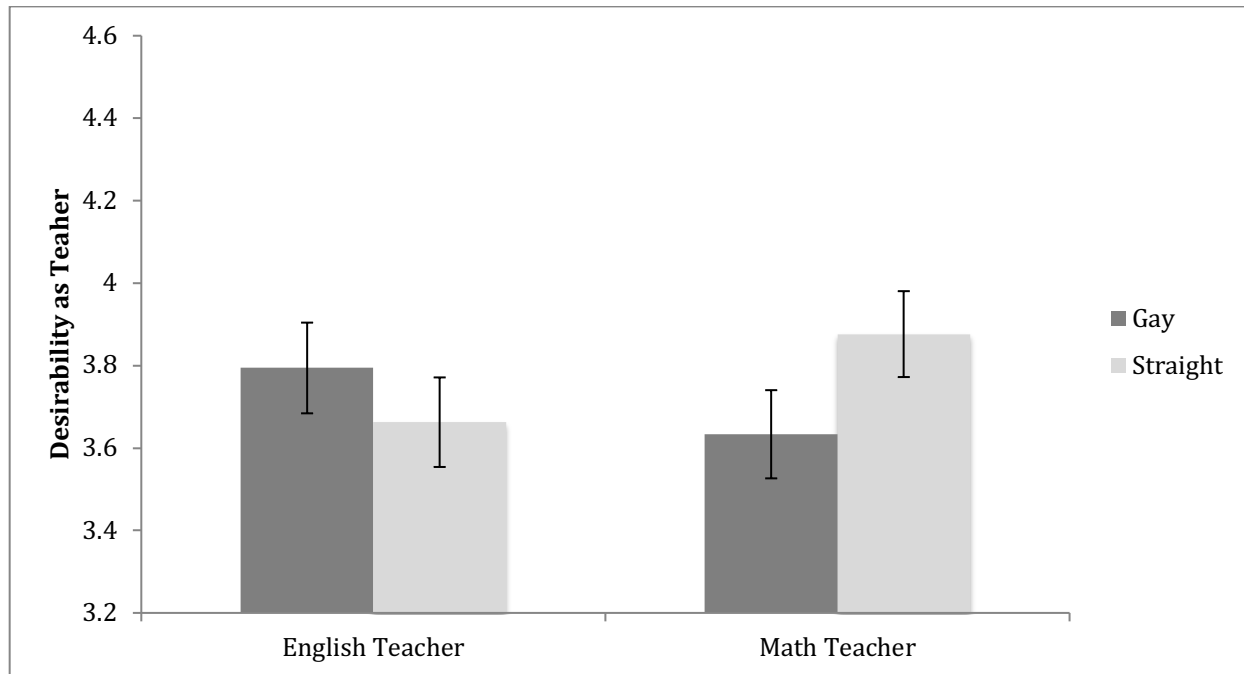


Figure 3. Means and standard errors of participants' likelihood of selecting gay and straight men as an English and math teacher (between-subjects) in Study 5B.

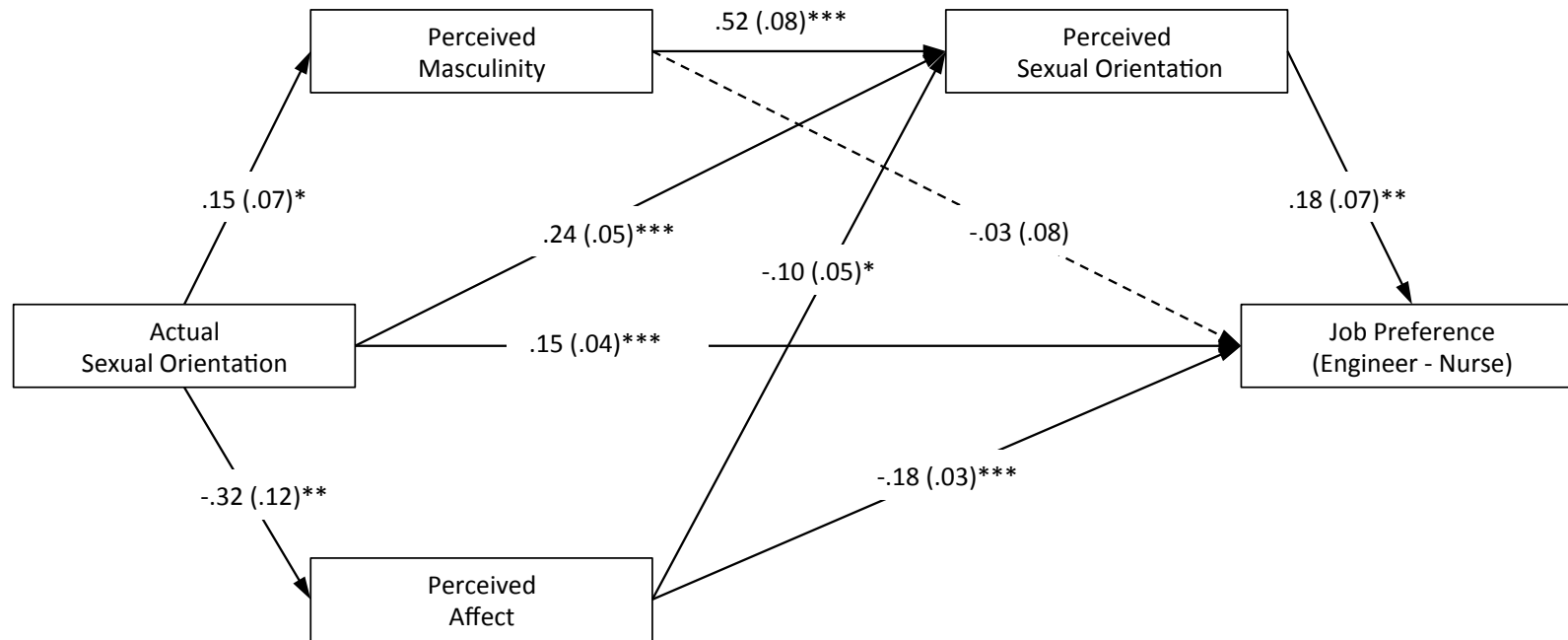


Figure 4. Serial multiple mediation model predicting differences in judgments of gay and straight targets' mean likely success as engineers versus nurses with unstandardized parameter estimates accompanied by bootstrapped standard errors. Dashed paths are not statistically significant.

Note. $*p < .05$, $***p < .001$. Actual Sexual Orientation contrast coded $-1 = Gay$, $1 = Straight$; Perceived Sexual Orientation, Masculinity, and Affect represent greater perceptions of heterosexuality, masculinity, and positive affect, respectively. The covariance between Affect and Masculinity (path not depicted) was not significant [$B = -0.08$, $SE = 0.08$, $Z = 0.90$, $p = .37$].

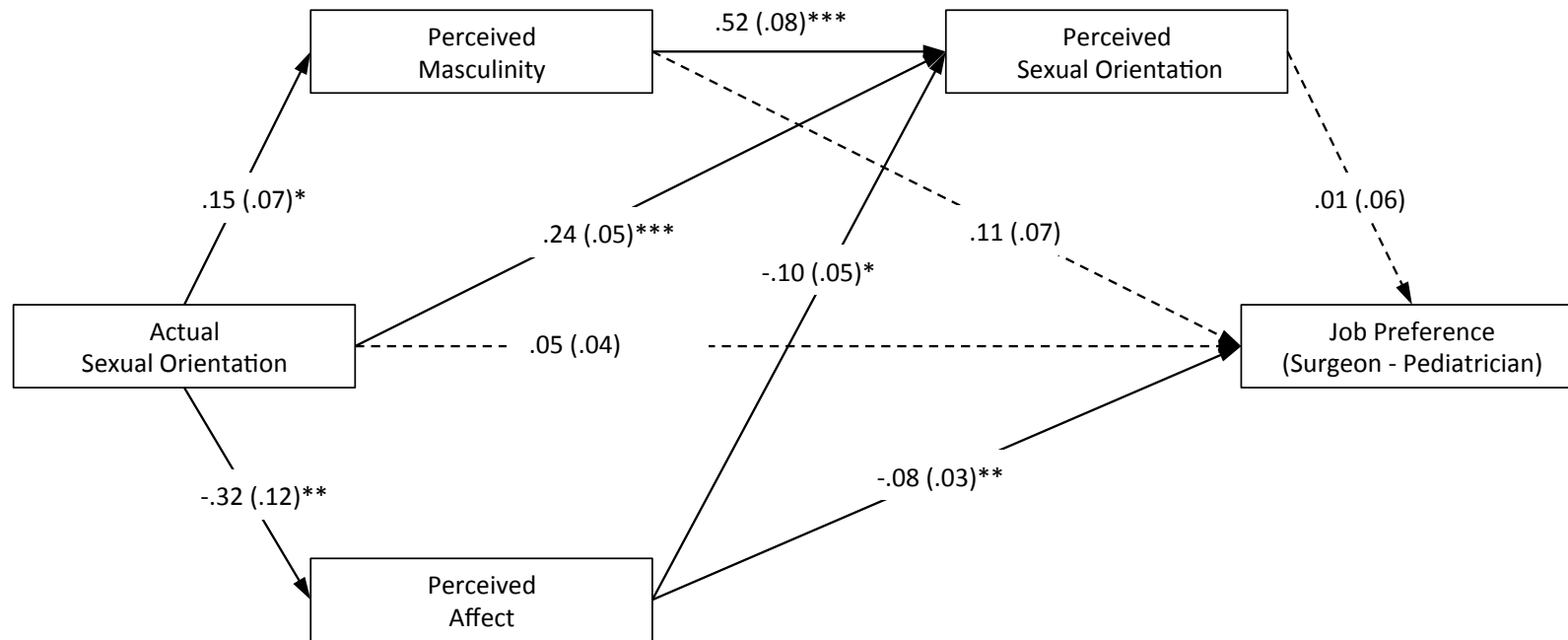


Figure 5. Serial multiple mediation model predicting differences in judgments of gay and straight targets' mean likely success as surgeons versus pediatricians with unstandardized parameter estimates accompanied by bootstrapped standard errors. Dashed paths are not statistically significant.

Note. $*p < .05$, $***p < .001$. Actual Sexual Orientation contrast coded $-1 = Gay$, $1 = Straight$; Perceived Sexual Orientation, Masculinity, and Affect represent greater perceptions of heterosexuality, masculinity, and positive affect, respectively. The covariance between Affect and Masculinity (path not depicted) was not significant [$B = -0.08$, $SE = 0.08$, $Z = 0.90$, $p = .37$].

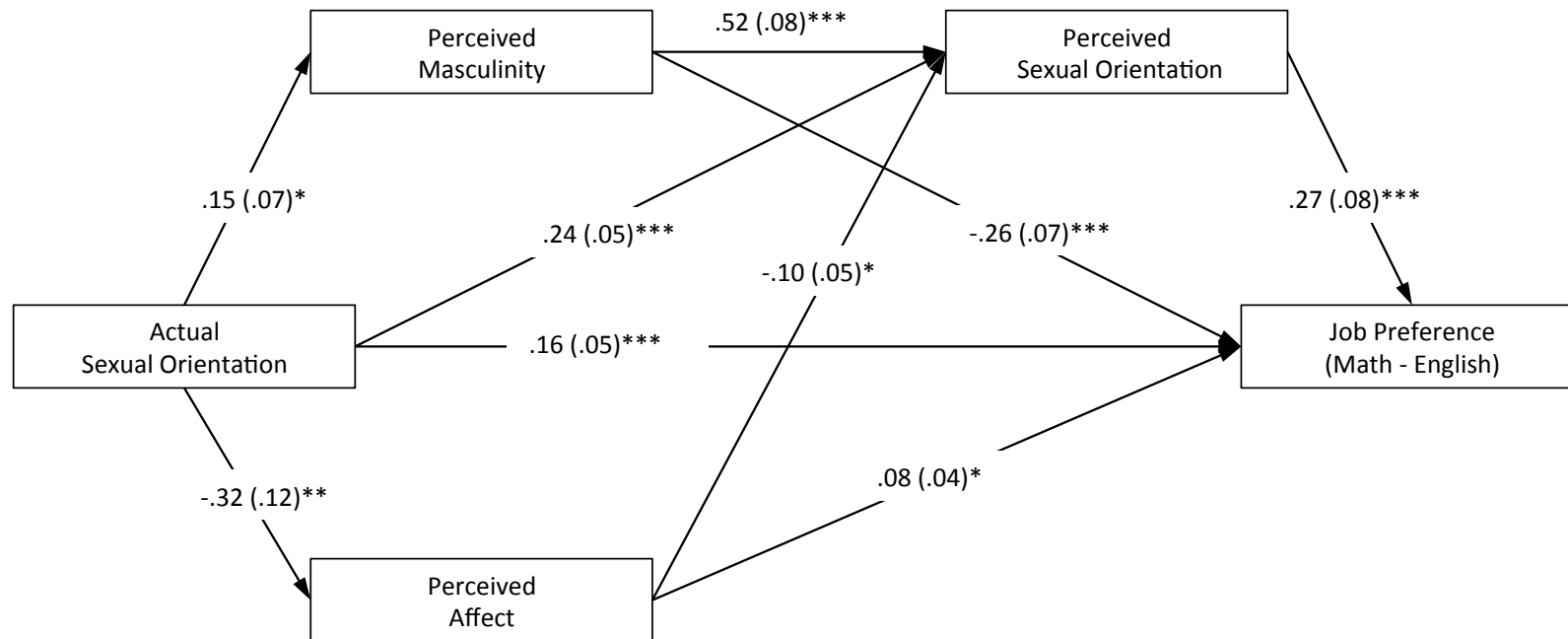


Figure 6. Serial multiple mediation model predicting differences in judgments of gay and straight targets' mean likely success as math versus English teachers with unstandardized parameter estimates accompanied by bootstrapped standard errors.

Note. $*p < .05$, $**p < .01$, $***p < .001$. Actual Sexual Orientation contrast coded -1 = Gay, 1 = Straight; Perceived Sexual Orientation, Masculinity, and Affect represent greater perceptions of heterosexuality, masculinity, and positive affect, respectively. The covariance between Affect and Masculinity (path not depicted) was not significant [$B = -0.08$, $SE = 0.08$, $Z = 0.90$, $p = .37$].

Footnotes

¹ Due to a computer error, we did not collect information about participant demographics in Studies 1 and 5.

² Note that the effect size r used throughout the manuscript refers to the point-biserial correlation between the relevant condition and dependent variable (see Rosenthal & Rosnow, 2008).

³ Across Studies 2-4, 3.2% of the participants asked about their profession indicated that they were currently unemployed. Excluding them from the analyses did not change the results.

⁴ The small number of sexual minority participants in these studies precluded meaningful tests of the effects of participant sexual orientation, leaving the question of variation according to participant sexual orientation open to future research.

⁵ Analyzing the data with condition as an additional predictor in the model did not meaningfully change the results and showed the expected significant Condition \times Sexual Orientation interaction here [$B = 0.17$, $SE = 0.05$, $t(4586) = 3.73$, $p < .001$, $r_{\text{Effect size}} = .05$] and in Study 4 [$B = 0.11$, $SE = 0.05$, $t(4406) = 2.54$, $p = .01$, $r_{\text{Effect size}} = .04$].

⁶ Here and in Study 4, the results of the analyses were virtually identical when we did not grand-mean center the variables.

⁷ We excluded one additional participant in the surgeon condition who provided uniform ratings at the scale midpoint for all of the targets.

⁸ Notably, we did not reanalyze the data from Study 3B because it only included one profession nor from Studies 3A and 4 due to the additional variables and manipulations in those studies.

⁹ We actually collected the affect ratings from a separate sample at a later point in time.

¹⁰ Though not ideal in many research designs (Edwards, 2001), our interest in the direct contrast between the pairs of professions (rather than the contribution of perceptions to selection in specific roles) rendered difference scores the best approach for testing our hypotheses.

¹¹ Results remained consistent when we analyzed the data from Studies 1 and 2 separately.