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To cite this article: Peter Hegarty & Fabio Fasoli (10 Aug 2023): Sounds Like There was No Sexual Orientation Discrimination? Attributions to Discrimination on the Basis of Auditory Gaydar, Journal of Homosexuality, DOI: 10.1080/00918369.2023.2233655

To link to this article: https://doi.org/10.1080/00918369.2023.2233655
Sounds Like There was No Sexual Orientation Discrimination? Attributions to Discrimination on the Basis of Auditory Gaydar

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\textbf{ABSTRACT}

Auditory gaydar happens when people’s heterosexuality is called into question by their vocal characteristics. Auditory gaydar has been shown to prompt discrimination against both women and men interviewing for leadership positions. Two experiments tested whether attributional ambiguity makes auditory gaydar discrimination difficult to detect in such contexts. Either heterosexual participants (Study 1, n = 161) or heterosexual and sexual minority participants (Study 2, n = 238) heard short clips of straight- vs. lesbian/gay-sounding speakers, described as unsuccessful applicants for leadership positions. Participants explained the speakers’ unsuccessful outcome in their own words and rated the likelihood that gender and sexual orientation discrimination caused that outcome. Attributions to gender discrimination were common whilst attributions to sexual prejudice were vanishingly rare. Women targets were rated more likely to have experienced gender discrimination, and lesbian/gay-sounding targets were rated more likely to have experienced sexual orientation discrimination by some participants (Study 1) or all participants (Study 2). We conclude that auditory gaydar may prompt discriminatory treatment in leadership hiring processes more readily than in prompts the recognition that discrimination on the basis of sexual orientation has occurred.

Auditory gaydar is a social phenomenon which leads listeners to infer from a speaker’s voice that they are unlikely to be straight (Lick & Johnson, 2016). Speakers whose voices match common stereotypes (e.g., lisping for men, sounding monotone for women) are likely to be perceived as gay/lesbian (Mack & Munson, 2012; Moonwomon-Baird, 1997). Although differences between speakers exist, those exhibiting such acoustic/phonetic cues are commonly referred to as lesbian/gay-sounding speakers. A body of controlled discrimination experiments show that auditory gaydar can lead listeners to discriminate against
both lesbian-sounding and gay-sounding speakers in contexts, such as the workplace (Fasoli & Hegarty, 2020), health (Fasoli, Maass, et al., 2018), parenting (Fasoli & Maass, 2020), education (Taylor & Raadt, 2021), and interpersonal interactions (Fasoli et al., 2017). The current research builds on this body of findings to examine how listeners make attributions when a lesbian- or gay-sounding person is rejected at a job interview, and sexual orientation discrimination might have been the cause of their rejection.

This research is informed by an understanding of heterosexism as a form of structural stigma which empowers sexual majority individuals and disempowers sexual minority individuals through a variety of psychological processes (Herek, 2007). We understand status to refer to group hierarchies and power to the processes by which those hierarchies are attenuated or enhanced (Sidanius & Pratto, 2001; Simon & Oakes, 2006). In social climate that are increasingly favorable toward sexual orientation equality, status hierarchies can be sustained less by direct discrimination than by modern prejudice that does not seem to be based on sexual orientation at all (Morrison & Morrison, 2003). Accordingly, we examined how discrimination based on auditory gaydar may be mis-attributed, obscuring power processes that maintain inequalities in hiring contexts. We focused on hiring for leadership positions as sexual minority leaders can create opportunities for individual and collective empowerment, attenuating sexual orientation-based status hierarchies (Fassinger et al., 2010; Renn, 2007). However, national studies continue to show that sexual minority workers are not appointed to the highest levels of leadership in rates that are equivalent to their heterosexual counterparts (de Vries & Steinmetz, 2023).

Heterosexism not only targets sexual minorities, but also disadvantages members of the heterosexual majority who ally with sexual minority people or who are mistaken to be members of the group (Herek, 2007). Auditory gaydar is not always accurate and representations of lesbian and gay-sounding voices take little account of intersections between sexual orientation and either race or class (Miller, 2018; Vasilovsky, 2018). Regardless of accuracy, auditory gaydar is frequently guided by the common “gender inversion” stereotype that gay men have feminine characteristics and lesbian women have masculine characteristics (Fasoli et al., 2016, 2022; Kachel et al., 2018, 2020; Masi & Fasoli, 2022). Moreover, men and women believed to sound feminine or masculine, respectively, are aware that listeners are likely to perceive them as gay or lesbian, respectively (Fasoli, Hegarty, et al., 2018). The present research examines attributions about people who sound lesbian or gay rather than who identify as such. Our concern is with the difference between the vulnerability of such people to auditory gaydar discrimination versus the likelihood that such discrimination would be attributed to their voices sounding lesbian or gay.
**Auditory gaydar and intersectional discrimination**

On the face of it, auditory gaydar seems more relevant to men than to women. Compared to lesbian women, gay men anticipate more rejection on the basis of their voices’ auditory features and are more vigilant against such discrimination (Fasoli et al., 2021). People, particularly straight people, believe it is harder to detect sexual orientation from women’s voices than from men’s voices (Fasoli et al., 2022). Gay and straight men believe that their voices communicate their sexual orientation more than lesbian and straight women do (Fasoli, Hegarty, et al., 2018). Straight people also essentialize gay-sounding voices as possessing more discretely bounded and immutably different characteristics than lesbian-sounding voices do. Among straight people, these essentialist beliefs are also correlated with avoidance of gay-sounding speakers (Fasoli et al., 2021).

Set in this context, it is surprising that recent studies examining auditory gaydar discrimination in the context of a leadership hire found stronger discrimination against lesbian-sounding women than against gay-sounding men (Fasoli & Hegarty, 2020). In Fasoli and Hegarty’s experiments (2020), participants heard speakers utter a short sentence described as an excerpt from an interview for one of the several corporate leadership positions. The speakers’ voices had been rated in a pretest as implying that they were either straight or were lesbian/gay. Participants rated the speakers’ suitability for the leadership roles and indicated whom they would employ. In three experiments, straight-sounding speakers were consistently preferred over lesbian/gay-sounding speakers, and in all three cases sexual orientation discrimination intersected with gender. Specifically, lesbian-sounding women were discriminated against relative to their heterosexual counterparts more than gay-sounding men were discriminated against relative to their heterosexual counterparts. These findings recall Crenshaw’s (1991) classic intersectional critique of discrimination law that recognized discrimination on the basis of race and gender, but failed to conceptualize the discrimination on the basis of their intersection which was experienced by Black women employees. Across Fasolii and Hegarty’s (2020) experiments, sexual orientation discrimination against both women and men was consistently mediated by attributions of competence; lesbian- and gay-sounding speakers were not hired because they sounded like they lacked competence skills. Attributions of lower competence are commonly applied to individual members of lower status groups (Fiske et al., 2002). Lesbian and gay-sounding people were deemed less appointable to these leadership positions because they were perceived to have lower status, rather than because stereotypically masculine job candidates were preferred.

These experiments demonstrate particular discrimination against lesbian women at the intersection of gender and sexual orientation. Such intersecting forms of discrimination can become invisible and poorly theorized when
discrimination is conceptualized around minority-group men or majority-group women only (Crenshaw, 1991; Purdie-Vaughns & Eibach, 2008). In psychology, there is an unfortunate history of prioritizing the concerns of sexual minority men over sexual minority women (Lee & Crawford, 2007, 2012). In light of these risks of occluding intersectional discrimination, we investigated attributional ambiguity as an explanation of why it might be difficult to detect the auditory gaydar discrimination that lesbian-sounding women experience in leadership contexts (Fasoli & Hegarty, 2020).

**Attributional ambiguity**

When individuals experience discrimination on the basis of a group membership they are often left wondering if they were treated negatively because of prejudice against their group or for some other reason. This phenomenon, known as attributional ambiguity, shapes the experience of discrimination for perpetrators and targets. For perpetrators of prejudice, attributional ambiguity allows discrimination to continue whenever negative treatment can be attributed to a plausible motive other than group prejudice (Snyder et al., 1979). For targets of prejudice, attributions of others’ negative evaluations to their group prejudices can have a protective effect on mood and self-esteem (Crocker et al., 1991; Hoyt et al., 2007). However, this process is far from automatic (Crocker et al., 1993; King, 2003). Attributional ambiguity has not been extensively studied in the domain of sexual orientation discrimination, but it may impact sexual minorities’ attributions about the lack of social support they sometimes receive from friends and family (Holmberg & Blair, 2016). Qualitative research has shown that gender non-conformity is often the spark or target of negative treatment of sexual minority individuals, and that it often leaves individuals with attributional ambiguity or “a feeling of constantly questioning yourself” (Anderson, 2020, p. 12).

Fasoli and Hegarty (2020) noted that auditory gaydar discrimination in hiring contexts would create a highly ambiguous situation for lesbian- and gay-sounding job candidates. Even if interviewers are influenced by auditory gaydar, they will not simply announce to the candidates that they reject at interview that heterosexism biased their judgments (see Herek & McLemore, 2013 on heterosexism). Attributional ambiguity is not limited to those whose voices sound lesbian or gay to listeners. Rather, it is very easy to treat someone badly because of how their voice sounds without declaring what you are doing (see Formanowicz & Suits, 2020). Accentism affects interpersonal and intergroup relations with regard to a wide range of migrant, ethnic, and national groups (see Dragojevic et al., 2020; Gluszek & Dovidio, 2010). However, only a minority of accented speakers report experiencing discrimination because of their accent, suggesting that attributional ambiguity may arise when accent-
based discrimination occurs (Derwing, 2003). This literature further motivated our research question that discrimination against lesbian- and gay-sounding people may be ambiguous, and not always attributed to sexual orientation discrimination.

Finally, attributional ambiguity regarding auditory gaydar discrimination may differ between lesbian-sounding women and gay-sounding men. Sexual orientation is a more ambiguous social category than others like race and sex (see Tskhay & Rule, 2013). Because of gender-inversion stereotypes, sexual minorities often attribute discrimination on the basis of sexual orientation to expressions of gender (Anderson, 2020). Due to power hierarchies based on gender, women are more often the targets of sexism than men are, and prototypes of sexist actions represent women as the prototypical target of such actions (Inman & Baron, 1996). Consequently, sexism is likely to be a more cognitive accessible explanation for negative treatment than heterosexism (Higgins, 1996), and particularly so for women rather than men. Accordingly, we predicted that gender—not sexual orientation—would be the more likely attribution for rejection at interview in this context, particularly when interview candidates were women.

The present research

We approached attributional ambiguity by inserting Fasoli and Hegarty’s (2020) auditory stimuli in two novel experiments. In both studies, participants heard one of Fasoli and Hegarty’s (2020) original speakers (a lesbian-sounding woman, a gay-sounding man, a straight-sounding woman, or a straight-sounding man) and were told that the speaker was not offered the leadership position for which they interviewed. Participants were asked how they would explain the speaker’s negative outcome in their own words and to rate gender and sexual orientation discrimination as possible causes of the outcome.

We had three hypotheses. First, we reasoned that gender discrimination is a more accessible explanation than sexual orientation overall. Accordingly, we predicted a greater number of spontaneous references to gender discrimination than sexual orientation discrimination and higher ratings of the likelihood of gender discrimination than sexual orientation overall (Hypothesis 1). Second, attributions to sexism are more plausible when speakers are women rather than men (Inman & Baron, 1996). Accordingly, we predicted that there will be a greater number of spontaneous references to gender discrimination in free response measures and higher ratings of the likelihood of gender discrimination when speakers are women rather than men (Hypothesis 2). Third, attributions to sexual orientation discrimination are more plausible when targets sound lesbian/gay rather than sound straight. Accordingly, Hypothesis 3 predicted that there will be a greater number of spontaneous references to sexual orientation discrimination in free response
measures and higher ratings of the likelihood of sexual orientation discrimination when speakers sound lesbian/gay rather than when they sound straight.

All three hypotheses were tested with open-ended measures and response scales in both studies. Study 1 included only heterosexual participants and Study 2 included equal proportions of heterosexual-identified and lesbian/gay-identified participants. Some heterosexual people may resist making an attribution to prejudice due to modern prejudice (Morrison & Morrison, 2003), and heterosexual people have a stronger straight categorization bias to presume that others are straight-by-default (Fasoli et al., 2022). There may be both intended and unintended reasons why heterosexual participants would be less likely than sexual minority participants to make attributions to sexual orientation discrimination.

Study 1

Method

Participants

One hundred and sixty-two heterosexual British English native speakers completed the study. One participant who did not provide final consent was excluded leaving 82 women and 79 men ($M_{age} = 35.16, SD = 12.03$) in the final sample. Most held a university or college degree (72.6%, $n = 117$) and identified politically as left on a 1–7 left-right scale ($M = 3.40, SD = 1.42$, $t$-test against the midpoint $t [160] = -5.34, p < .001$). Most reported no previous experience in hiring (73.3%, $n = 118$). A sensitivity power analysis ($\alpha = .05, 1 - \beta = .80, N = 161$) indicated that our sample allowed us to detect a medium effect size $f = .22$.

Materials

Job advertisement. Participants read a job ad for a managerial position in the financial sector of a manufacturer and office supplies distributor (see Fasoli & Hegarty, 2020; Studies 1 and 2).

Speakers’ voices. In a between-participants design, participants were randomly assigned to hear one of the four speakers (lesbian-sounding woman vs. gay-sounding man vs. straight-sounding woman vs. straight-sounding man) utter a short introductory sentence (“I am [name] and I am interested in this job”). The extract was described as arising during the job interview. We used audio files for two speakers’ voices for each target category. Voices were shown by pretest to be perceived as lesbian/gay- or straight-sounding, and speakers were categorized as lesbian/gay or straight appropriately (see Fasoli & Hegarty, 2020). Speakers were all young British adults (27–32 years old) from the same geographic area of the UK.
Free response prompt. Participants were next prompted to make an attribution for this speaker’s failure to secure the job:

This person was surprised to learn that they did not get this job as they were qualified for it. As often happens in disappointing situations, they wondered what had happened, and particularly if discrimination had played a role in the outcome. Imagine the person was your friend and try to understand whether discrimination may have occurred. Please indicate at least one of the possible reasons why the person did not get the job and why the person may have been discriminated in the hiring process.

Participants were asked to generate 1–5 explanations of the negative outcome.

Gender and sexual orientation discrimination ratings. Participants answered two items indicating how likely it was that the candidate experienced discrimination because of their gender and sexual orientation, respectively. Answers to both items ranged from 1 (very unlikely) to 7 (very likely).

Procedure
Participants were recruited online through Prolific and were paid £0.70. Prolific is a leading platform for the conduct of online surveys and experiments (Palan & Schitter, 2018) where participants can be pre-screened for specific demographics, including sexuality. After listening to the speaker and completing the measures described above, participants reported their demographics, were debriefed, and provided final consent to data use.

Results
Spontaneous attributions
Two researchers coded the open-ended responses (1 = occurrence, 0 = non-occurrence) into nine categories based on the attributions for interview failure that participants mentioned. Inter-rater reliability was good for this coding scheme. Four categories referred to discrimination against characteristics protected under UK law: gender, age, ethnicity, and sexual orientation (κ range = .90–1.00). Five categories referred to nondiscriminatory factors: professionalism, experience, vocal characteristics, status, and other idiosyncratic reasons, (κ range = .73–.87). We conducted chi-squared tests to analyze if frequencies were equivalent across the four groups of speakers where there were at least 10 responses overall and at least 1 response per condition in each category. Table 1 shows the proportion of participants who generated responses in each category in each speakers’ group.

Attributions to gender discrimination. These open-ended responses confirmed Hypothesis 1. Gender discrimination was the most commonly mentioned attribution, being mentioned more than 17 times as often as sexual
orientation discrimination, which was the least commonly mentioned attribution (see Table 1). Hypothesis 2 was also confirmed, attributions to gender discrimination were more common when candidates were women \((n = 43\) of 80 participants, 53.7\%) than men \((n = 10\) of 81 participants, 12.3\%), \(\chi^2(1, 161) = 31.25, p < .001\). Gender discrimination was attributed with equivalent frequency to lesbian- and straight-sounding women, \(\chi^2(1, 80) = 1.26, p = .262\). Unexpectedly, gender discrimination was mentioned significantly more often regarding straight-sounding men \((n = 9\) of 40 participants, 22.5\%) than gay-sounding men \((n = 1\) of 41 participants, 2.4\%), \(\chi^2(1, 81) = 7.53, p = .006\).

**Attributions to sexual orientation discrimination.** Hypothesis 3 could not be tested because so few participants made attributions to sexual orientation discrimination.

**Other attributions.** We explored the attributions to other factors to better describe how participants made sense of this ambiguous scenario. Attributions to experience were significantly more common for women speakers \((n = 21\) of 80 participants, 26.2\%) than men speakers \((n = 11\) of 81 participants, 13.58\%), \(\chi^2(1, 161) = 4.06, p = .04\), but did not vary by speaker sexual orientation. Attribution to vocal characteristics (e.g., accent) were significantly more common for lesbian/gay-sounding speakers \((n = 13\) of 81 participants, 16\%) than straight-sounding speakers \((n = 3\) of 80 participants, 3.7\%), \(\chi^2(1, 161) = 6.80, p = .009\). No gender or sexual orientation applicant differences were found for any other reasons commonly mentioned by participants, namely age, ethnicity, professionalism, and status, \(\chi^2 < 3.16, ps > .08\).
**Ratings of discrimination**

Ratings of the likelihood of gender and sexual orientation discrimination were also analyzed to test the three hypotheses.

**Ratings of gender discrimination.** Confirming Hypothesis 1, within-participants \( t \)-test showed that ratings of gender discrimination (\( M = 3.11, SD = 1.91 \)) were significantly higher than ratings of sexual orientation discrimination overall (\( M = 2.53, SD = 1.64 \)), \( t(160) = 3.67, p < .001 \). Additional analyses adding participant gender as a between-subjects factor reached identical conclusions.

To test Hypothesis 2, we examined the impact of speaker gender (woman vs. man) and speaker sexual orientation (lesbian/gay-sounding vs. straight-sounding) using a \( 2 \times 2 \) univariate ANOVA on ratings of gender discrimination. As predicted, women candidates (\( M = 3.66, SD = 1.85 \)) were rated as more likely to have experienced gender discrimination than men candidates (\( M = 2.57, SD = 1.82 \)), \( F(1, 157) = 14.12, p < .001, \eta^2_p = .083 \). No main effect of speaker sexual orientation or interaction effect were observed (\( Fs < .10, ps > .75 \)). These effects remained the same when participants’ gender was added as a factor in the analyses.

**Ratings of sexual orientation discrimination.** The same analysis was applied to ratings of sexual orientation discrimination to test Hypothesis 3. Disconfirming this hypothesis, no significant main effect of speaker sexual orientation was observed, and the main effect of speaker gender and the interaction effect were also non-significant (\( Fs < 1.258, ps > .264 \)). We re-ran the same analyses adding participant gender (woman vs. man) as an additional between-subjects factor. This was motivated by past findings that women are particularly motivated to respond without prejudice to lesbian and gay men (Ratcliff et al., 2006). The analysis yielded a significant 3-way interaction between speaker gender, speaker sexual orientation, and participant gender, \( F(1, 153) = 4.81, p = .030, \eta^2_p = .030 \). We examined results for men and women separately. Men rated sexual orientation discrimination as equally likely for all candidates. Women also judged sexual orientation discrimination as similarly likely for lesbian-sounding women (\( M = 2.26, SD = 1.59 \)) and straight-sounding women (\( M = 2.67, SD = 1.74; p = .436 \)). However, women rated the gay-sounding man (\( M = 3.09, SD = 1.99 \)) as more likely to have experienced sexual orientation discrimination than the straight-sounding men (\( M = 1.80, SD = 1.24; p = .011 \)). Hence, Hypothesis 3 was confirmed only among women participants rating men speakers.

**Discussion**

Study 1 confirmed Hypothesis 1 as gender discrimination was a far more accessible explanation of a speakers’ interview outcome than sexual
orientation discrimination and gender discrimination was rated as a more likely explanation of that explanation than sexual orientation discrimination. Hypothesis 2 was also confirmed; gender-based discrimination came to mind more easily and was rated as more likely when the speaker was a woman rather than a man. Women speakers were also spontaneously described as less experienced and lesbian/gay-sounding speakers were spontaneously attributed remarkable vocal features. Hypothesis 3 could not be tested with open-ended data because the support for Hypothesis 1 was overwhelming; sexual orientation discrimination was almost never mentioned spontaneously as a cause of the interview’s outcome. Only women participants rated sexual orientation discrimination as more likely when speakers sounded lesbian/gay, and only did so in response to male speakers.

These findings are consistent with our hypothesis that a job candidate’s disappointment in this scenario is not readily attributed to sexual orientation discrimination. These findings are telling as these identical stimuli repeatedly prompted sexual orientation discrimination from similar participants in recent controlled experiments (Fasoli & Hegarty, 2020). By comparison, sexism is a far clearer and more accessible explanation of the interview’s negative outcome particularly when the speaker was a woman. These findings raise concerns that lesbian women may experience intersectional invisibility in this context because sexism is recognized but heterosexism is not. Study 2 examined these same three hypotheses with a more diverse sample and slightly revised study materials.

**Study 2**

Study 2 aimed to replicate Study 1 with a sample including both straight and lesbian/gay (henceforth LG) participants. In addition, we increased the possible reasons for the negative interview outcome whose likelihood participants were asked to rate. Sexual minorities provide a more challenging test of our hypothesis that poor outcomes for lesbian- and gay-sounding speakers would not be attributed to sexual orientation discrimination.

**Method**

**Participants**

Two hundred and forty-nine British English native speakers completed the study. We excluded nine participants who did not provide final consent for data use, one participant who identified as bisexual, and one who identified as gender non-binary so that we could construct participant sexual orientation and gender as binary independent variables. The final sample consisted of cisgender participants ($M_{age} = 38.48, SD = 12.67$) who identified as lesbian women ($n = 54$), straight women ($n = 62$), gay men ($n = 61$), and straight
men \((n = 61)\). Most held a university or college degree \((76.8\%, \ n = 183)\) and identified politically as left on a 1–7 left–right scale \((M = 3.01, \ SD = 1.41, \ t\text{-test against the midpoint } t[237] = -10.87, \ p < .001\). Most reported that they had no previous experience in hiring employees \((58\%, \ n = 138)\) but those who reported such experience had several years of experience \((M = 7.70, \ SD = 7.63 \ \text{years})\). A sensitivity power analysis \((\alpha = .05, \ 1 - \beta = .80, \ N = 238)\) for ANOVAs with 3 between factors and 8 groups indicated that our sample allowed us to detect a small to medium effect size \(f = .18\).

**Procedure and materials**

The study replicated Study 1 but with few minor differences. Participants were recruited online through Prolific Academic and were paid £0.94. Participants read the job advertisement, listened to the same stimuli used in Study 1, and responded to the identical prompt to explain the speaker’s failure to secure the job. Next, they were presented with a 10-item scale asking them to indicate the likelihood that the speaker experienced discrimination for different reasons. Five items referred to protected characteristics \((\text{i.e., gender, sexual orientation, age, ethnicity, and religion})\) and five items referred to reasons that mentioned by participants in Study 1 \((\text{i.e., social class, accent, lack of competence, lack of professionalism, and lack of experience})\). These reasons were occasionally mentioned by Study 1 participants. Then, participants completed a manipulation check measure in which they completed eight items reporting how likely it was that the job applicant was a woman, a man, a gay/lesbian person or a straight person, and four filler items assessing the likelihood that the applicant was White, Black, and a native or non-native speaker of English. Finally, they reported their demographics as in Study 1. They were then debriefed and thanked before they reported consent to data use.

**Results**

**Manipulation checks**

We conducted \(t\text{-tests to examine how the speakers’ gender and sexual orientation were correctly guessed. Women speakers } (M = 6.73, \ SD = .85)\) were judged more likely to be women than were the men speakers \((M = 1.42, \ SD = .95), \ t(236) = 45.33, \ p < .001\). Men speakers \((M = 6.64, \ SD = .91)\) were judged more likely to be men than women speakers \((M = 1.43, \ SD = 1.09), \ t(236) = 39.89, \ p < .001\). The LG speakers \((M = 3.80, \ SD = .78)\) were judged more likely to be LG than the heterosexual speakers \((M = 3.57, \ SD = .95), \ t(236) = 2.02, \ p = .046\). However, the LG speakers \((M = 4.56, \ SD = .89)\) and heterosexual speakers \((M = 4.64, \ SD = 1.03)\) were judged as similarly likely to be heterosexual, \(t(236) = -.61, \ p = .545\). This latter result is not surprising as it is in line with the overall straight categorization bias \((\text{Lick & Johnson, 2016})\) suggesting everyone is assumed to be straight. No speaker gender or sexual
orientation differences occurred on any of the four filler items about race or native language (ts < 1.45, ps > .15).

**Spontaneous attributions**
Two researchers, whose inter-rater reliability was good, coded the open-ended responses (1 = occurrence, 0 = nonoccurrence) into nine categories based on the attributions for interview failure that participants mentioned. Four categories referred to discrimination against characteristics that are protected under UK law: gender, age, ethnicity, and sexual orientation (κ range = .79–.93). Five categories referred to other characteristics that could plausibly influence judgments of an interview candidate: enthusiasm, experience, vocal characteristics, confidence, professionalism, appearance, and other idiosyncratic reasons (κ range = .66–.91). We conducted chi-squared tests to analyze if frequencies were equivalent across the four conditions where there were at least 10 responses and at least 1 response per condition in that category. Table 2 shows the proportion of participants who generated responses in each category in each condition.

**Attributions to gender discrimination.** Hypothesis 1 was again supported. Gender discrimination was mentioned by more than 23 times as many participants as sexual orientation discrimination (see Table 2). Hypothesis 2 was also supported as attributions to gender discrimination were more

<table>
<thead>
<tr>
<th>Target Sexuality</th>
<th>Lesbian (n = 61)</th>
<th>Gay (n = 60)</th>
<th>Straight Women (n = 62)</th>
<th>Straight Men (n = 57)</th>
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<tr>
<td><strong>Target Gender</strong></td>
<td></td>
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<td></td>
<td></td>
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<tr>
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<td>31</td>
<td>15</td>
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<td>5</td>
<td>17</td>
<td>5</td>
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<td>Straight Women</td>
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<th>Gay (n = 60)</th>
<th>Straight Women (n = 62)</th>
<th>Straight Men (n = 57)</th>
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<td>2.61 (1.63)</td>
<td>4.26 (1.81)</td>
<td>3.11 (1.86)</td>
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<td>2.60 (1.56)</td>
<td>2.44 (1.56)</td>
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<td>4.10 (1.79)</td>
<td>4.74 (1.65)</td>
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<td>Accent</td>
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</tbody>
</table>
often common when speakers were women \((n = 66\) of 122 participants, 54\%) than men \((n = 27\) of 116 participants, 23.3\%), \(\chi^2(1, 238) = 23.73, p < .001\). Attributions to sexism did not vary by sexual orientation but were equivalently frequent in response to both straight- and lesbian-sounding women, \(\chi^2(1, 122) = .85, p = .356\), and to both straight- and gay-sounding men \(\chi^2(1, 116) = .58, p = .446\), see Table 2.

**Attributions to sexual orientation discrimination.** As in Study 1, too few participants mentioned sexual orientation to allow Hypothesis 3 to be meaningfully tested.

**Attributions to other factors.** Age was the only other protected characteristic mentioned more than 10 times and at least once per condition. Age was mentioned more often when speakers were women \((n = 36\) of 122 participants, 29.5\%) rather than men \((n = 19\) of 116 participants, 16.2\%), \(\chi^2(1, 238) = 5.76, p = .016\). Age attributions were equivalently frequent in response to lesbian-sounding women and straight-sounding women, \(\chi^2(1, 123) = .26, p = .607\). However, age was mentioned more often in response to gay-sounding men than straight-sounding men \(\chi^2(1, 117) = 4.73, p = .030\). In sum, if the speaker had either a lower status sexual orientation or gender then attributions to age discrimination were more common (see Table 2).

We also examined the attributions to frequently mentioned factors other than group-based discrimination. Attributions to vocal characteristics (e.g., sounding monotone, accent) were more common for LG-sounding applicants \((n = 15\) of 119 participants, 12.6\%) than straight-sounding applicants \((n = 6\) of 119 participants, 5\%), \(\chi^2(1, 238) = 4.23, p = .040\). No condition differences emerged for problems with the candidates’ enthusiasm (all \(\chi^2 < 3.27, ps > .070\)), experience (all \(\chi^2 < .28, ps > .60\)), confidence (all \(\chi^2 < 1.44, ps > .230\)), or professionalism (all \(\chi^2 < .14, ps > .70\)).

**Ratings of discrimination**

Preliminary analyses showed that age \((M = 4.29, SD = 1.76)\), lack of competence \((M = 4.11, SD = 1.74)\), professionalism \((M = 4.38, SD = 1.71)\), and experience \((M = 4.42, SD = 1.81)\) were rated as the most likely reasons for discrimination followed by gender \((M = 3.69, SD = 1.92)\). Accent \((M = 3.06, SD = 1.71)\), ethnicity \((M = 3.00, SD = 1.61)\), and social class \((M = 3.33, SD = 1.69)\) were in the middle. Sexual orientation \((M = 2.77, SD = 1.56)\) and religion \((M = 2.57, SD = 1.44)\) were the least likely reasons mentioned. Ratings of the likelihood of discrimination provided further tests of the three principal hypotheses.

**Ratings of gender discrimination.** Confirming Hypothesis 1, a pairwise \(t\)-test showed that gender discrimination was rated as more likely than sexual
orientation discrimination overall, $t (237) = 7.17$, $p < .001$. We tested Hypothesis 2 and 3 by examining the ratings of the likelihood of gender and sexual orientation discrimination respectively. In each case, we conducted a 2 (Speaker Gender: female vs. male) x 2 (Speaker Sexual orientation: lesbian/gay-sounding vs. straight-sounding) x 2 (Participant Sexual Orientation: LG vs. heterosexual) univariate ANOVA on each item.²

Analysis of gender discrimination ratings confirmed Hypothesis 2 by showing a significant main effect of speaker gender. Women speakers ($M = 4.49$, $SD = 1.72$) were rated as more likely to have experienced gender discrimination than men speakers ($M = 2.85$, $SD = 1.75$), $F(1, 230) = 52.29$, $p < .001$, $\eta_p^2 = .185$. A significant interaction between speaker gender and speaker sexual orientation also emerged, $F(1, 230) = 4.68$, $p = .031$, $\eta_p^2 = .02$. Pairwise comparisons (Bonferroni correction) showed that the effect of speaker gender was always significant but was larger among lesbian/gay-sounding applicants than straight-sounding applicants, see Table 2, both $p < .001$. Pairwise comparisons based on speaker sexual orientation within each gender group were not significant ($ps > .125$). No other significant main effect or interaction occurred. These findings were robust regardless of whether participants were LG or straight (all $Fs < .10$, $ps > .74$).

**Ratings of sexual orientation discrimination.** Analysis of sexual orientation discrimination ratings confirmed Hypothesis 3. Lesbian/gay-sounding candidates ($M = 3.03$, $SD = 1.53$) were rated as significantly more likely to have experienced sexual orientation discrimination than straight-sounding candidates ($M = 2.52$, $SD = 1.56$), $F(1, 230) = 6.44$, $p = .012$, $\eta_p^2 = .027$. No other significant main effects or interactions occurred ($Fs < .84$, $ps > .36$).

**Ratings of other factors.** We explored the remaining eight dependent variables with the same three-way ANOVA model. Speaker gender significantly affected ratings of lack of experience and age discrimination, whilst speaker sexual orientation significantly affected ratings of discrimination on the basis of accent, social class, and religion. Ratings for ethnicity, lack of competence, and lack of professionalism discrimination revealed no significant main effects or interactions ($Fs < 3.75$, $ps > .054$, see Table 2 for means).

Regarding the effects of speaker gender, women candidates ($M = 4.73$, $SD = 1.78$) were rated as more likely than men candidates ($M = 4.09$, $SD = 1.79$) to have been targets of lack of experience discrimination, $F(1, 230) = 7.60$, $p = .006$, $\eta_p^2 = .032$. Women candidates ($M = 4.68$, $SD = 1.61$) were also rated as more likely than men candidates ($M = 3.87$, $SD = 1.82$) to have been targets of age discrimination, $F(1, 230) = 13.52$, $p < .001$, $\eta_p^2 = .056$. No other significant main effects or interactions occurred with regard to either dependent variable ($Fs < 1.12$, $ps > .29$).
Regarding the effects of speaker sexual orientation, lesbian/gay-sounding speakers were rated as more likely to have been targets of three forms of discrimination other than sexual orientation discrimination. First, lesbian/gay-sounding speakers ($M = 3.39, SD = 1.77$) were rated as more likely than straight-sounding speakers ($M = 2.73, SD = 1.59$) to have been targets of accent discrimination $F(1, 230) = 9.77$, $p = .002$, $\eta_p^2 = .041$. Second, lesbian/gay-sounding speakers ($M = 3.69, SD = 1.65$) were rated as more likely than straight-sounding candidates ($M = 2.97, SD = 1.66$) to have been targets of social class discrimination $F(1, 230) = 6.03$, $p = .015$, $\eta_p^2 = .026$. Participants ($M = 3.59, SD = 1.65$) also gave higher ratings than straight participants ($M = 3.09, SD = 1.69$) of the likelihood of social class discrimination against all speakers. Finally, lesbian/gay-sounding candidates ($M = 2.77, SD = 1.41$) were rated as more likely to have been targets of religious discrimination than straight-sounding candidates ($M = 2.36, SD = 1.45$), $F(1, 230) = 5.08$, $p = .025$, $\eta_p^2 = .022$. No other significant main effects or interactions occurred with regard to any of these three dependent variables (all $Fs < 3.68$, $ps > .06$).

**Discussion**

Study 2 replicated the results of Study 1 with a more diverse sample. Again, gender both came to mind far more often and was rated as a far more likely cause of the speakers’ failure at interview than sexual orientation (Hypothesis 1). Gender discrimination was mentioned as a possible cause more often and rated as a more likely cause for women speakers than men speakers (Hypothesis 2). As in Study 1, very few participants spontaneously mentioned sexual orientation discrimination, but unlike Study 1, all participants consistently rated sexual orientation as more likely for lesbian/gay-sounding speakers than straight-sounding speakers. Women speakers were rated more likely to have suffered from age and lack of experience discrimination than men.

Lesbian/gay-sounding speakers were rated more likely to have suffered from a range of sexual orientation and gender unrelated reasons (i.e., religion, social class, and accent-based discrimination) than straight-sounding speakers. Seemingly, participants thought about a range of alternative possible reasons for lesbian/gay-sounding job candidates’ rejection. None of those reasons were based on “evident” social categories. Rather all speakers were English native speakers from the same area of the UK and none had a particularly strong nonstandard accent. Lesbian/gay-sounding speakers were heard as sounding “non-prototypical” and participants may have made sense of this as another kind of “accent”. Participant sexual orientation did not consistently moderate these effects of speakers’ characteristics, suggesting that these effects were not unique to majority group members motivated to deny sexual orientation discrimination or with no clear concept of auditory gaydar.
General discussion

In two studies, participants heard speakers’ voices that were previously shown to prompt sexual orientation discrimination (Fasoli & Hegarty, 2020). However, both studies reported here found that negative outcomes for such speakers were very rarely attributed to sexual orientation discrimination. Rather, participants consistently explained the speakers’ failure at interview as a consequence of gender discrimination or other causes. Unsurprisingly, gender discrimination was a particularly accessible explanation when speakers were women. However, sexual orientation discrimination was almost never called to mind even when speakers sounded lesbian or gay. Sexual orientation discrimination was rated as a more likely cause of lesbian/gay-sounding speakers’ outcomes than straight-sounding speakers’ outcomes by some participants in Study 1 and by all participants in Study 2. Lesbian/gay-sounding speakers were described as having noteworthy voices (Study 1) and were rated as more likely to have been a target of several forms of discrimination (Study 2). In sum, whilst auditory gaydar in response to these speakers prompted sexual orientation discrimination in past experiments (Fasoli & Hegarty, 2020; for similar results see; Fasoli et al., 2017), it almost never prompted attribution to sexual orientation discrimination in the studies reported here. Lesbian- and gay-sounding speakers may experience discrimination in such high-stakes contexts as job interviews more often than it is inferred that such discrimination happened.

Both cognitive and interpersonal factors may collude to ensure that lesbian- and gay-sounding speakers were not consistently categorized as people who were vulnerable to sexual orientation discrimination. Sexual orientation is an ambiguous social category (Tskhay & Rule, 2013), and heterosexuality is its default (Lick & Johnson, 2016). Whilst the gay- and lesbian-sounding candidates clearly sounded different, they were not as consistently re-categorized as sexual minority individuals (see also Sulpizio et al., 2015, 2020). Participants spontaneously remarked on their vocal characteristics as a possible cause of the interview outcome in both studies. Some (Study 1) or all (Study 2) of the participants rated sexual orientation discrimination as more likely for these speakers than for straight-sounding speakers. Participants in Study 2 also rated unrelated forms of discrimination, such as religion and social class as more likely to have caused these speakers’ disappointing outcomes. Lesbian- and gay-sounding speakers may have sounded clearly different, more than they sounded clearly lesbian or gay.

The interpersonal context of the experiment itself may also have played a role. The bias to categorize others as straight by default is stronger among individuals who believe that labeling others as gay is stigmatizing and may expose them to harm (Alt et al., 2020). This may, unexpectedly, make people concerned about sexual orientation discrimination less likely to think about it
or to mention it spontaneously, even in anonymized experiments. Heterosexuality is the highest status sexual identity (Herek & McLemore, 2013), and mis-attributing a lower status identity to a person can violate politeness norms and cause that person to lose face (Brown et al., 1987; Pecoraro, 2020; see also Goffman, 1967). In Fasoli and Hegarty’s (2020) experiments using these same stimuli, lesbian- and gay-sounding candidates were rated as less competent, an attribute stereotypically applied to lower status individuals (Fiske et al., 2002). By making vague attributions to vocal characteristic (Studies 1 and 2), and by rating the lesbian/gay-sounding speakers as more likely to experience discrimination on the basis of religion, accent, or social class (Study 2), participants may have been actively constructing plausibly polite explanations of the speaker’s disappointment that avoided risking insulting the speakers with uncertain attributions that they were lesbian or gay. The consequence was that sexual orientation discrimination was rendered invisible.

Jointly, the present research and Fasoli and Hegarty’s (2020) experiments show that sexual orientation disparities in leadership representation may be maintained by patterns of discrimination that are kept invisible because they are ambiguous. Attributional ambiguity is particularly important for the debate about laws concerning gender and sexual orientation discrimination and, particularly, perceived discrimination based on voice (see Castle, 2012). If people overlook voice as a cue of discrimination, and do not mention the “gay voice” stereotype as a possible cause of discrimination, then it follows that voice-based sexual orientation discrimination would remain unnoticed and under-reported in workplace settings. Indeed, this phenomenon may also contribute to the wider social construction of heterosexism as a “modern” prejudice that many people believe does not occur any more in our society (Morrison & Morrison, 2001).

A lesbian-sounding woman may be uniquely precarious in relation to the intersectional effects of sexism and sexual prejudice when applying for a leadership position. Attributional ambiguity may render auditory gaydar discrimination against lesbian-sounding women particularly obscure (see Fasoli et al., 2017; Fasoli & Hegarty, 2020 for evidence of such effects). As theories of intersectionality would predict, such women are vulnerable to the intersection of two forms of discrimination which in conjunction become less intelligible, and harder to attribute to discrimination (c.f., Krenshaw, 1991). The social construction of reality can and does happen through a wide variety of means, such that labeling a phenomenon as “socially constructed” does not give a very precise explanation of its cause (Hacking, 1999). Our findings suggest that the well-meaning and polite sense-making of heterosexual, lesbian, and gay friends might even be material to socially constructing negative ambiguous events in lesbian-sounding women’s lives as effects of sexism, obscuring the intersection of
sexism and sexual orientation discrimination still further. Of course, this explanation in no way negates the fact that heterosexual identifying individual may also deny and minimize lesbian and gay-sounding individuals’ experiences of discrimination intentionally when the person’s sexual orientation status is unambiguously clear (Shin et al., 2023).

**Limitations and future directions**

This research is not without limitations. First, we only considered British native speakers in the UK where a law against sexual orientation discrimination in employment exists. Future studies should consider different languages and contexts that vary in terms of attitudes toward minorities and LGBT rights recognition.

Second, we only looked at the intersection between gender and sexual orientation communicated by vocal cues. Both vocal characteristics of gay- and lesbian-identified speakers and the stereotypes of those speakers may be inflected by other status markers, such as race and class to a greater extent than research on group differences in vocal characteristics acknowledges (see Miller, 2018; Vasilovsky, 2018). For instance, it is possible that gender and sexual orientation might become even less salient if the job candidate speaks with a nonstandard accent that signal foreignness (see Formanowicz & Suitner, 2020). Alternatively, the double minority signaled by the “gay” voice and foreign accent could enhance the applicant’s invisibility because they are seen as lacking competence/status (see Fasoli et al., 2023).

Third, in this study of first impressions, our audio stimuli were short. Research has shown that stimuli length influence auditory gaydar judgments, confidence in those judgments, and related judgments (see Painter et al., 2021). Hence, with longer stimuli more participants may question the assumption that the speakers are heterosexual-by-default and consider the possibility that others might treat them negatively on the basis of the sexual orientations that their voices communicate. Finally, our findings are limited to leadership and hiring discrimination. Lesbian- and gay-sounding people are likely to be stigmatized in different contexts. Future research should test attribution of voice-based discrimination to sexual orientation in contexts, such as teaching (Taylor & Raadt, 2021) and health services (see Shin et al., 2021).

**Conclusions**

In a context of increasingly positive attitudes toward sexual orientation equality, leadership is a domain where inequality still persists. The misattribution of discrimination in hiring context, that occurs due to auditory gaydar, obscures one mechanism by which hierarchies based on sexual orientation are
perpetuated and obscured. Lesbian-sounding women may face the harshest discrimination in these contexts whilst the intersectional discrimination that they experience is attributed to other causes.

Notes

1. The pattern of results was similar when the bisexual participant and the non-binary participant were both included in the analyses.
2. In Study 1, participants’ gender affected the perceived likelihood of sexual orientation discrimination. Accordingly, we also checked for potential participant gender differences in all discrimination ratings. Participants’ gender was never a significant factor by itself or in interaction with the other factors with one exception. In this case, a significant 4-way interaction was found regarding lack of professionalism. Pairwise comparisons showed that gay men attributed the interview outcome for straight-sounding men to lack of professionalism than lesbian women did.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This project has received funding from the European Union’s Horizon 2020 Research and Innovation Programme under the Marie Skłodowska-Curie grant agreement No 700844. Project title “Beyond ‘Straight Talking’: The Consequences of Vocal Cues to Sexual Identity for Modern Prejudice” (Acronym: TheGayVoice).

References


