#### ORIGINAL ARTICLE

WILEY

# Personality traits as identity threat cues: Stigmatized perceivers infer prejudice from disagreeableness

Melanie R. Maimon<sup>1</sup> | Diana T. Sanchez<sup>1</sup> | Siris Rodriguez<sup>1</sup> | Analia F. Albuja<sup>2</sup>

#### Correspondence

Melanie R. Maimon, Department of Psychology, Bryant University, 1150 Douglas Pike, Smithfield, RI, 02917, USA.

Email: melanie.maimon@rutgers.edu

#### Funding information

The Rutgers Aresty Research Center

#### **Abstract**

**Objective:** Across four studies, we examined whether certain personality traits cue prejudice and serve as identity threat cues.

**Background:** Stigmatized group members may be vigilant to personality cues that signal prejudice.

**Method:** In Study 1 (N=76), perceivers selected traits and behaviors associated with disagreeableness and closedness to experience as indicators of prejudice. In Studies 2–4, perceivers with stigmatized identities (Total N=907) learned about a target person who was depicted as disagreeable or agreeable (Studies 2 and 3) and as disagreeable or another trait matched on perceived negativity (i.e., low in conscientiousness, Study 4).

**Results:** Participants perceived the disagreeable target as more discriminatory and hierarchy-endorsing (Studies 2–4), more morally disengaged (Study 3), and more likely to discriminate against stigmatized identity groups (Studies 2 and 4) than the agreeable or low conscientious targets. The relationship between target disagreeableness and perceived discrimination was partially explained by higher perceived hierarchy endorsing beliefs (Studies 2–4) and perceived moral disengagement (Study 3).

**Conclusions:** This research finds that perceivers with stigmatized identities utilize target disagreeableness as a cue of identity threat, inferring that disagreeable people are more likely to be discriminatory, prejudicial, and hierarchy-endorsing than agreeable and low conscientious people.

#### KEYWORDS

identity cues, identity threat, personality, prejudice

#### 1 | INTRODUCTION

As people navigate social settings, they are exposed to expansive information about the physical environment and

the people around them. People often utilize cues from others and their environments to form judgments, make attributions, and determine their impressions of other people (Blanch-Hartigan et al., 2012; Frieze & Weiner, 1971;

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2023 The Authors. *Journal of Personality* published by Wiley Periodicals LLC.

<sup>&</sup>lt;sup>1</sup>Department of Psychology, Rutgers University-New Brunswick, New Brunswick, New Jersey, USA

<sup>&</sup>lt;sup>2</sup>Department of Psychology, Northeastern University, Boston, Massachusetts, USA

Slovic, 1966). People with stigmatized identities may be particularly attuned to information that signals whether their identity is likely to be respected and valued. These *identity safety and threat cues* can come from a physical environment (e.g., gender-inclusive bathrooms; Chaney & Sanchez, 2018) and from other people (e.g., role models with similar identities; Pietri et al., 2018). In the present work, we assessed whether others' personality traits can serve as threat cues for people with stigmatized identities.

Researchers have consistently found relationships between prejudice toward stigmatized groups and certain personality traits, such that people who are low in agreeableness and low in openness to experience tend to be high in prejudice (Akrami, Ekehammar, & Bergh, 2011; Koehn et al., 2019; Sibley & Duckitt, 2008). Research on implicit personality theory suggests that perceivers expect certain traits and behaviors to be interrelated, such that a person who is thoughtful is expected to be warm, or a person who yells at their spouse is expected to be hostile (Borkenau, 1992). Thus, while a self-reported link between prejudice, low agreeableness, and low openness to experience has been established in the literature, no work to our knowledge has examined whether people expect certain personality traits to cooccur with prejudice and discrimination toward stigmatized identity groups.

In the present work, we examined perceptions that personality traits can serve as indicators of prejudice. Specifically, we assessed whether (1) stigmatized perceivers spontaneously and deliberately indicated personality traits as prominent cues of prejudices and (2) expected a disagreeable person to be prejudicial and discriminatory toward people with stigmatized identities utilizing experimental designs.

# 1.1 Personality traits and prejudice

In efforts to better understand sources and correlates of prejudice, scholars have investigated the relationship between various forms of prejudice and the Big Five personality dimensions (Akrami, Ekehammar, & Yang-Wallentin, 2011; Ekehammar et al., 2004; John & Srivastava, 1999; Koehn et al., 2019). Agreeableness and openness to experience have been found to negatively correlate with prejudice toward stigmatized groups (Koehn et al., 2019; Sibley & Duckitt, 2008). Agreeable people are typically kind, trusting, and cooperative (John & Srivastava, 1999; McCrae & Costa, 2008). Disagreeableness has consistently been found to correlate to high levels of sexism, heterosexism, and racism (e.g., Akrami, Ekehammar, & Bergh, 2011; Sibley & Duckitt, 2008).

Social dominance orientation (SDO) and morality are related to prejudice (Ho et al., 2015; McFarland, 2010)

and may help to explain the relationship between disagreeableness and prejudice. SDO measures people's preference for social hierarchy and social order and has been found to mediate the relationship between agreeableness and prejudice, such that people who are low in agreeableness are high in SDO, and in turn, high in prejudice (Ekehammar et al., 2004; Sibley & Duckitt, 2008). Principled moral reasoning, which accounts for people's desire for fairness and justice in society while disregarding what would benefit themselves most (Gerson & Neilson, 2014), has been found to relate to both SDO and prejudice (McFarland, 2010). Using structural equation modeling, McFarland (2010) found that higher SDO predicts lower principled moral reasoning, which in turn predicts higher levels of prejudice.

In the present work, we sought to assess whether lay-people *perceive* there to be links among disagreeableness, SDO, morality, and prejudice. People with stigmatized identities may hold implicit personality theories that include an assumption that disagreeable people are likely to discriminate against people with stigmatized identities. In prior work, stigmatized group members' lay theories of prejudice appear to overlap with scientific evidence on the prejudiced mind (e.g., Sanchez et al., 2017) and thus, we expected traits that correspond with prejudice to serve as lay indicators of prejudice.

# 1.2 | Identity cues

People with stigmatized identities encounter information in social environments (e.g., schools, workplaces, intergroup interactions) that can increase feelings of identity threat (Steele et al., 2002). One way to alleviate the negative impacts of identity threat is to foster feelings of identity safety (Maimon et al., 2023; Purdie-Vaughns & Walton, 2011). People with stigmatized identities regularly encounter identity safety and threat cues, which are interpersonal and environmental cues that signal the value of their identity in a particular context (Chaney et al., 2019; Pietri et al., 2018; Purdie-Vaughns et al., 2008). Identity safety cues (e.g., gender-inclusive bathrooms, ingroup role models, diverse representation) can improve comfort, expected treatment, and impressions for people with stigmatized identities (Chaney & Sanchez, 2018; Howansky et al., 2021; Maimon et al., 2023). In contrast, identity threat cues (e.g., reminders of inequality, prejudicial attitudes, lack of ingroup members) can lower belonging, engagement, and trust, and increase expectations of discrimination (Chaney et al., 2021; Murphy et al., 2007; Sanchez et al., 2017). People's identities, behaviors, and beliefs can serve as cues that perceivers with stigmatized identities utilize to infer if they will experience identity

threat or safety. In the present study, we extend this work to examine whether people's *traits* can operate similarly.

# 1.3 | The present work

Given that people's attitudes and qualities have been found to signal identity threat to stigmatized group members, we first sought to assess whether personality traits known to be associated with prejudice (i.e., low agreeableness, low openness to experience) serve as identity threat cues for people with stigmatized identities. Using mixed methods, Study 1 explored beliefs about the traits and behaviors that are common among prejudiced people. We predicted that participants would report behaviors and traits associated with disagreeableness and closedness to experience to be indicative of a prejudiced person. In three subsequent experimental studies, we examined whether a person's disagreeableness served as a cue of discrimination, and thus, identity threat. Moreover, we explored whether perceived SDO and moral disengagement served as serial mediators between disagreeableness and perceived discrimination. Data, syntax, study materials, and a supplemental file can be found on OSF at the following link: https://osf.io/ qxkjw/?view\_only=aef02f2fed5145c68d7c21ed2a2d4e50.

#### 2 | STUDY 1

Study 1 explored beliefs about the relationships between personality traits and prejudice among a sample of stigmatized group members. Specifically, we asked participants about the traits and behaviors they perceive are common among prejudiced people to examine whether disagreeableness and closedness to experience were indicators of prejudice. To provide some discriminant validity (i.e., demonstrate that not all traits serve as prejudice cues), we explored whether traits and behaviors associated with high and low extraversion would be perceived as indicators of prejudice, as past work suggests that extraversion is not typically associated with prejudice (Sibley & Duckitt, 2008).

#### 3 | METHOD

#### 3.1 | Participants

We recruited a racially diverse group of 80 women to participate in a correlational online study through the university human subject pool in fall 2020. After excluding participants who completed the study in less than 1/3 of the median completion time (n=1) or answered fewer

than half of the questions (n=3), the final sample included 76 women ( $M_{\rm age}=18.3,~SD_{\rm age}=0.8;~85.5\%$  heterosexual; 57.9% Asian, 22.4% White, 10.5% Hispanic/Latinx, 10.5% Middle Eastern, 5.3% Multiracial, 2.6% Black, 1.3% Native American). We determined a need for a sample of 73 participants through a~priori power analyses in G\*Power (Faul et al., 2009) for within factors ANOVA with 80% power and a small to medium effect size (f=0.15).

#### 3.2 | Procedure

Participants signed up for the study in the human subject pool and completed an online Qualtrics survey using the measures listed below in the following order. After completing the questions, they were debriefed, thanked, and awarded course credit for their participation.

#### 3.3 | Materials

#### 3.3.1 | Prejudice open responses

Participants responded to eight open-response questions, including questions focused on personality traits that prejudiced people are likely to have. Further discussion and analyses of these questions can be found in the supplemental file on OSF.<sup>1</sup>

#### 3.3.2 | Trait indicators

Participants viewed 24 traits and indicated which traits, if any, a person could have that would indicate the person is prejudiced. Participants selected between zero and 24 traits. Six of the traits corresponded to disagreeableness (e.g., cold), six to closedness to experience (e.g., unimaginative), six to low extraversion (e.g., quiet), and six to high extraversion (e.g., outgoing). We created trait indices for disagreeableness, closedness to experience, high extraversion, and low extraversion by summing the number of traits participants selected as typical of prejudiced people. We created these indices given past work on the correlations between Big Five personality traits and prejudice (John & Srivastava, 1999; Sibley & Duckitt, 2008).

#### 3.3.3 | Behavior indicators

From a list of 20 behaviors associated with Big Five personality dimensions (John & Srivastava, 1999), participants indicated which behaviors, if any, a person could do that would suggest the person is prejudiced. Participants



selected between zero and 20 behaviors. Five behaviors were designed to correspond to disagreeableness (e.g., "starts arguments with others"), five to high extraversion (e.g., "talks to new people"), five to closedness to experience (e.g., "keeps to a strict routine"), and five to low extraversion (e.g., "avoids public speaking"). We created behavioral indices for disagreeableness, closedness to experience, high extraversion, and low extraversion by summing the number of behaviors participants selected.

#### 3.3.4 Demographics

Participants reported on demographics including their gender identity, racial background, political ideology, age, and sexual orientation.

#### 4 RESULTS AND DISCUSSION

Study 1 data can be found on OSF (Maimon et al., 2023a). Using a list of traits associated with Big Five personality dimensions, participants selected traits indicative of prejudice. We conducted a within-subjects ANOVA to compare the average number of traits reported as indicators of prejudice that correspond to disagreeableness, closeness to experience, low extraversion, and high extraversion. We found a significant difference in the traits selected, F(3, 225) = 166.18, p < 0.001,  $\eta_p^2 = 0.69$ . Using pairwise comparisons with LSD adjustments, we found that participants believed a greater number of disagreeable traits (M=4.6, SD=1.5) were associated with prejudice than all other traits, ps < 0.001. Additionally, participants perceived more traits associated with being closed to experience (M=2.8, SD=1.7) were indicators of prejudice than traits associated with high and low extraversion, ps < 0.001. The number of low extraversion (M=0.8, SD=1.4)and high extraversion (M=0.5, SD=0.6) traits selected did not significantly differ, p = 0.154.

Using a list of behaviors associated with Big Five personality dimensions, participants indicated the behaviors they would expect from prejudiced people. We conducted a within-subjects ANOVA to compare the average number of BFI-related behaviors selected as indicators of prejudice and found a significant difference in the behaviors selected, F(3, 225)=161.67, p<0.001,  $\eta_p^2=0.68$ . Using pairwise comparisons with LSD adjustments, we found that participants believed disagreeable behaviors (M=4.3, SD=1.2) were more indicative of prejudice than all other behaviors, ps<0.001. Closed to experience behaviors (M=1.8, SD=1.6) were more indicative of prejudice than behaviors associated with high and low extraversion, ps<0.001. More low extraversion behaviors (M=0.9, p)

SD=1.4) were reported as indicators of prejudice than high extraversion behaviors (M=0.5, SD=0.9), p=0.044.

These findings demonstrate that prejudiced people are expected to have traits associated with disagreeableness. Women expected some traits associated with being closed to experience to serve as indicators of prejudice, which may be due to certain facets of openness being perceived as indicators of prejudice. A recent meta-analysis found that the values, feelings, and fantasy facets of openness to experience related to prejudice across several studies (Ng et al., 2021). Future research should explore whether different facets of openness are expected to cooccur with prejudice. While past research has found a self-reported link between prejudice and low agreeableness and low openness to experience (Akrami, Ekehammar, & Bergh, 2011; Koehn et al., 2019), this research provides preliminary evidence of a perceptual link between prejudice and these personality traits. In Studies 2-4, perceivers with stigmatized identities learned about a target who is depicted as either agreeable or disagreeable (Studies 2 and 3) or as either disagreeable or low in conscientiousness (Study 4) to examine perceivers' expectations of the target's ideologies and likelihood of being prejudicial and discriminatory. Study 2 included a White male target because they are prototypical perpetrators of prejudice (Bucchianeri & Corning, 2013; Cunningham et al., 2009; Inman & Baron, 1996), which we thought would make stigmatized group members more vigilant to cues of prejudice.

#### 5 | STUDY 2

In Study 2, we predicted that women would anticipate more gender stigma and negative gender-based treatment from a man and perceive him to be more racist, sexist, and higher in SDO when the man is disagreeable rather than agreeable. We also predicted that the higher perceived SDO of the man would, in part, explain the relationship between agreeableness and expectations of prejudice and discrimination from the man. We examined whether these outcomes would differ between racial/ethnic minority women and White women.

#### 6 | METHOD

#### 6.1 Participants

We recruited a racially diverse sample of 410 women to participate in the study through a university human subject research pool in Fall 2019 and early Spring 2020, prior to the start of the COVID-19 pandemic. After removing participants who attempted to restart the study (n=6),

completed the study in under 5 min (n=1), completed less than half of the study (n=4), or expressed suspicion of the manipulation (n=4), 395 women remained in the sample  $(M_{\rm age}=18.6,\ SD_{\rm age}=1.1;\ 49.6\%$  White, 27.3% Asian, 11.6% Latinx/Hispanic, 8.9% Black, 2.8% Multiracial, 2.3% Middle Eastern; 90.9% heterosexual). We recruited a similar number of White women (n=196) and racial/ethnic minority women (n=199) for the study. We determined a need for a sample of at least 351 participants through a priori power analyses in G\*Power (Faul et al., 2009) for ANCOVA with 80% power and small to medium effect size (f=0.15).

#### 6.2 | Procedure

Women signed up to participate in the study using the university's human subject research pool and completed the study in an on-campus lab space with a woman research assistant present. After providing informed consent, participants were told they would form an impression of a White man based on a personality profile that the man completed for an earlier study. Participants also learned that they would schedule a time to participate in a mock interview with the man whose profile they viewed, and who would serve as an evaluator of their interview. The male evaluator was described as a fellow university student. Participants were randomly assigned to read one of two personality profiles depicting a young White man who was either disagreeable or agreeable. The profiles include the evaluator's purported responses to the Big Five Inventory, depicting the evaluator as neutral on all traits aside from agreeableness (John & Srivastava, 1999). We included responses to the Locus of Control scale (Rotter, 1966) in the profiles as filler to disguise our research questions and reduce demand characteristics, as has been done in related research employing this same paradigm (e.g., Sanchez et al., 2017). Given the forcedchoice response format of the Locus of Control scale, the profiles included responses to this measure with half of the selected responses corresponding to higher external locus of control, and half of the selected responses corresponding to a higher internal locus of control.

After reading the profile, participants completed measures of the perceived personality traits of the evaluator. They reported impressions of the evaluator with measures of likeability, anticipated gender-based treatment, anticipated gender stigma, perceived racism, and perceived sexism from past work (Sanchez et al., 2017). Participants reported perceptions of the evaluator's SDO (hereafter meta-SDO; Ho et al., 2015), completed a measure of personality and situational attribution of prejudice, responded to some filler impression questions, and

completed demographic questions. After completing the survey, participants were debriefed and notified that no mock interview would take place. Research assistants explained the deception in the study and gauged participants' suspicion of the manipulation. Participants were thanked and awarded course credit. All study materials can be found on OSF. This paradigm has been used successfully in past work on identity cues (e.g., Sanchez et al., 2017).

#### 6.3 | Materials

# 6.3.1 | Perceived personality traits and manipulation check

Participants reported their perceptions of the agreeableness, extraversion, openness to experience, conscientiousness, and neuroticism of the evaluator (e.g., "in your opinion, how agreeable is the other participant based on their profile?") on a scale from 1 (*not at all [trait]*) to 3 (*very [trait]*). The agreeableness question served as a manipulation check.

#### 6.3.2 | Likeability

Participants were asked to what extent they expected to like the evaluator (Sanchez et al., 2017) with five items such as, "how much do you think you will like the other participant?" Likeability was measured on a scale from 1 (*very slightly or not at all*) to 7 (*extremely or a lot*), with higher scores indicating greater liking of the evaluator ( $\alpha$ =0.89).

# 6.3.3 | Anticipated gender-based treatment

Participants reported how concerned they were of an unfair evaluation during the mock interview based on their gender (Sanchez et al., 2017), with three items (e.g., "how worried are you that they might not treat you with respect because you are a woman?"). We measured items on a scale from 1 (*not at all worried*) to 7 (*very worried*) with higher scores indicating more negative anticipated gender-based treatment from the evaluator ( $\alpha$ =0.97).

# 6.3.4 | Anticipated gender stigma

On a scale from 1 (*Strongly disagree*) to 7 (*Strongly agree*), participants responded to three items pertaining to expected gender stigma (e.g., "I am concerned that the other

4676494, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/jppy.12855 by Rutgers University Libraries, Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenses and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenses and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenses and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenses and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenses and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenses and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenses and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on the applicable Creative Commons (

participant would judge me negatively based on my gender;" Sanchez et al., 2017). Higher scores indicate greater anticipated gender stigma ( $\alpha$  = 0.97).

#### 6.3.5 | Perceived racism and sexism

Using a scale from 1 (*very slightly or not at all*) to 7 (*extremely or a lot*), participants reported expectations that the evaluator would be racist (e.g., "How likely is this person to discriminate based on race") and sexist (e.g., "how likely is this person to discriminate based on gender;" Sanchez et al., 2017). We created a three-item composite of *perceived racism* of the evaluator ( $\alpha$ =0.72) and a three-item composite of *perceived sexism* of the evaluator ( $\alpha$ =0.81).

#### 6.3.6 | Meta-SDO

On a scale from 1 (they would strongly oppose) to 7 (they would strongly favor),<sup>2</sup> participants reported perceptions that the evaluator would endorse eight statements indicating a preference for social hierarchy and inequality (e.g., "some groups of people are simply inferior to other groups;" Ho et al., 2015). We created a composite so higher scores indicate greater meta-SDO of the evaluator ( $\alpha$ =0.88).

#### 6.3.7 | Additional measures

For any additional measures in the studies, please see the supplemental file on OSF.

#### 7 | RESULTS AND DISCUSSION

#### 7.1 Preliminary analyses

Study 2 data can be found on OSF (Maimon et al., 2023b). We winsorized six outliers in the measures of interest by replacing outliers with the closest value within three SD of the mean. We calculated bivariate correlations among

the measures of interest (see Table 1). We conducted a series of independent samples t-tests both as a manipulation check between the two trait conditions and to test whether to control for perceived personality traits and likeability in subsequent analyses. Supporting the effectiveness of the manipulation, participants perceived the male evaluator as higher in agreeableness in the agreeable condition (M=2.3, SD=0.5) than in the disagreeable condition (M=1.7, SD=0.5), t(393)=12.89, p<0.001, d=1.30.T-tests revealed significant differences in perceived conscientiousness, neuroticism, openness to experience, and likeability of the evaluator based on the trait conditions, ts(393) > 4.03, ps < 0.001, ds > 0.40. We controlled for likeability and these perceived personality traits in all subsequent analyses of the manipulation. Analyses excluding these covariates can be found in the supplemental file on OSF and yield similar findings.

#### 7.2 | Primary analyses

We conducted a 2 (trait condition: agreeable, disagreeable) × 2 (participant identity: racial/ethnic minority, White) MANCOVA to test our hypothesis that women would expect higher sexism, racism, gender stigma, and negative gender-based treatment from the evaluator who is disagreeable rather than agreeable. We also conducted a 2×2 ANCOVA to assess whether meta-SDO is higher in the disagreeable condition than in the agreeable condition, as we predicted. Indeed, there was a significant main effect of agreeableness trait condition on meta-SDO, F(1, 335) = 43.11, p < 0.001,  $\eta_p^2 = 0.11$ , such that women perceived the disagreeable evaluator as higher in SDO  $(M_{\rm marg} = 3.9, SE = 0.1)$ , and, therefore, more likely to endorse social hierarchy and inequality, than the agreeable evaluator ( $M_{\text{marg}} = 3.2$ , SE = 0.1). There was not a significant main effect of participant identity, F(1, 335) = 3.63, p = 0.058, nor a significant interaction between identity and trait condition on meta-SDO, F(1, 335) = 0.82, p = 0.37.

The MANCOVA revealed a significant main effect of trait condition, F(4, 384) = 10.37, p < 0.001, Wilks'  $\Lambda = 0.90$ ,  $\eta_p^2 = 0.10$ , and a significant main effect of

Variable	1	2	3	4	5
1. Anticipated gender-based treatment	_				
2. Anticipated gender stigma	0.76**	-			
3. Perceived sexism	0.68**	0.71**	_		
4. Perceived racism	0.59**	0.57**	0.73**	-	
5. Meta-SDO	0.47**	0.44**	0.60**	0.56**	

\*\*p < 0.01.

**TABLE 1** Bivariate correlations among variables of interest in Study 2.

participant identity, F(4, 384) = 3.76, p = 0.005, Wilks'  $\Lambda = 0.96$ ,  $\eta_p^2 = 0.04$ , on the combined dependent variables, but not a significant interaction between trait condition and participant identity, F(4, 384) = 0.17, p = 0.96, Wilks'  $\Lambda = 1.00$ . Women anticipated more gender stigma from the disagreeable evaluator ( $M_{\rm marg} = 3.1$ , SE = 0.1) than from the agreeable evaluator ( $M_{\rm marg} = 2.6$ , SE = 0.1), F(1, 387) = 7.56, p = 0.006,  $\eta_p^2 = 0.02$ . They also anticipated more negative gender-based treatment from the disagreeable evaluator ( $M_{\rm marg} = 2.5$ , SE = 0.1) than from the agreeable evaluator ( $M_{\rm marg} = 2.5$ , SE = 0.1) than from the agreeable evaluator ( $M_{\rm marg} = 2.2$ , SE = 0.1), F(1, 387) = 5.89, p = 0.016,  $\eta_p^2 = 0.02$ .

Women perceived the disagreeable evaluator to be more sexist  $(M_{\text{marg}}=3.1, SE=0.1)$  than the agreeable evaluator  $(M_{\text{marg}} = 2.5, SE = 0.1), F(1, 387) = 28.76, p < 0.001, \eta_n^2 = 0.07.$ Women perceived the disagreeable evaluator to be more racist ( $M_{\text{marg}} = 3.4$ , SE = 0.1) than the agreeable evaluator  $(M_{\text{marg}} = 2.6, SE = 0.1), F(1, 387) = 34.36, p < 0.001, \eta_p^2 = 0.08.$ There was a significant main effect of participant identity on perceived racism, F(1, 387) = 11.71, p = 0.001,  $\eta_p^2 = 0.03$ , such that racial/ethnic minority participants expected the evaluator to be more racist ( $M_{\text{marg}} = 3.2$ , SE = 0.1) than White participants ( $M_{\text{marg}} = 2.8$ , SE = 0.1). There were no significant main effects of participant identity on anticipated gender stigma, F(1, 387) = 3.62, p = 0.058, anticipated gender-based treatment, F(1, 387)=1.42, p=0.23, perceived sexism, F(1, 387) = 1.40, p = 0.24, and meta-SDO, F(1, 387) = 1.40, p = 0.24, and meta-SDO, F(1, 387) = 1.40, p = 0.24, and meta-SDO, F(1, 387) = 1.40, p = 0.24, and meta-SDO, F(1, 387) = 1.40, p = 0.24, and F(1, 387) = 1.40, F(1, 387)335) = 3.63, p = 0.058.

#### 7.3 | Mediation analyses

To assess the hypothesis that meta-SDO would mediate the relationship between the trait conditions and each measure of anticipated and perceived discrimination, we conducted a series of mediation analyses using Hayes' (2013) PROCESS Macro for SPSS 26. We conducted each mediation analysis using PROCESS model four with biascorrected bootstrapped confidence intervals (CIs) and 10,000 resamples (Hayes, 2013). We also controlled for liking, participant racial identity, and perceived openness to experience, neuroticism, and conscientiousness of the evaluator in these analyses. We compared impressions of the disagreeable evaluator (1) to impressions of the agreeable evaluator (0). There was a significant indirect effect of trait condition on anticipated gender stigma, B=0.46, 95% CI = [0.28, 0.65], anticipated gender-based treatment, B=0.46, CI=[0.32, 0.63], perceived sexism, B=0.47, CI = [0.33, 0.64], and perceived racism, B = 0.47, CI = [0.33, 0.64]0.63], through meta-SDO. Additional mediation statistics can be found in the supplemental file on OSF.

These findings suggest that women perceive disagreeable White men to be more sexist, racist, higher in SDO, and to treat them more negatively based on their gender than agreeable White men. Moreover, mediation results suggest that disagreeableness signals their level of SDO, which in turn related to greater anticipated gender stigma, more negative gender-based treatment, greater perceived sexism, and greater perceived racism from the evaluator. Overall, racial and ethnic minority women expected a White man to be more racist than White women, though no other differ-

ences based on participant racial identity emerged.

#### 8 | STUDY 3

The goal of Study 3 was to replicate and extend the findings of Study 2 with LGBQ participants, a target with unspecified identities, and a paradigm in which the target's personality was described by an acquaintance. We assessed whether perceptions of a target's SDO and morality would help to explain the relationship between personality and perceived discrimination. We predicted that LGBQ participants would perceive a target as more sexist, more racist, more heterosexist, higher in SDO, and more likely to morally disengage when the target was depicted as disagreeable than when the target was depicted as agreeable. We examined whether the perceived identities of the target differ based on the target's personality.

#### 9 | METHOD

#### 9.1 | Participants

We recruited 300 LGBQ people to participate in the study using Prolific Academic in Spring 2023. We excluded participants who did not identify as LGBQ ( $n\!=\!23$ ), attempted the study more than once ( $n\!=\!11$ ), failed the manipulation check ( $n\!=\!36$ ), and failed two or more attention checks ( $n\!=\!2$ ). The final sample included 228 LGBQ people ( $M_{\rm age}\!=\!33.0$ ,  $SD_{\rm age}\!=\!11.3$ ; 45.6% women, 43.0% men, 11.4% non-binary/agender; 73.7% White, 11.4% Latinx/ Hispanic, 11.0% Black, 7.0% Asian, 4.8% Multiracial, 1.8% Native American, 0.4% Middle Eastern, 0.9% another race/ethnicity; 61.8% bisexual, 20.2% gay, 10.5% lesbian, 7.5% queer). We conducted a power analysis for MANOVA in G\*Power (Faul et al., 2009) which suggested a need for at least 212 participants to detect a medium effect ( $f^2(V)\!=\!0.0625$ ) with 80% power.

#### 9.2 | Procedure and materials

LGBQ participants signed up for the online study on the Prolific platform. After providing informed consent, participants learned that the study was ostensibly focused on workplace dynamics. They read that a company has its employees complete anonymous evaluations of their coworkers and that they would read part of an anonymous evaluation of a coworker named "Jacob." Participants were randomly assigned to read one of two evaluations depicting Jacob as either agreeable or disagreeable. The evaluation included a coworker's responses to the agreeableness items about Jacob from the Big Five Inventory (John & Srivastava, 1999), indicating that Jacob's coworker perceived him as either agreeable or disagreeable. For example, in the agreeable condition, the coworker indicated that they "strongly agree" that they see Jacob as "someone who is helpful and unselfish with others." In contrast, in the disagreeable condition, the coworker indicated that they "strongly agree" that they see Jacob as "someone who tends to find fault with others."

After reading the evaluation, participants completed attention checks, a manipulation check, and a measure of perceived agreeableness. Participants then completed a series of impression and filler measures in a randomized order. As in Study 2, participants completed measures of likeability ( $\alpha = 0.96$ ), perceived racism ( $\alpha = 0.97$ ), perceived sexism ( $\alpha = 0.97$ ), and meta-SDO ( $\alpha = 0.97$ ) of the target, Jacob (Ho et al., 2015; Sanchez et al., 2017). They also completed a three-item measure of perceived heterosexism (e.g., "How likely is this person to discriminate based on sexual orientation?";  $\alpha = 0.97$ ) on a scale from 1 (very unlikely) to 7 (very likely) that was adapted from the perceived sexism items. To measure perceived moral disengagement, participants indicated how much they thought the target, Jacob, would agree with eight statements (e.g., "It is okay to spread rumors to defend those you care about;"  $\alpha = 0.97$ ; Moore et al., 2012) on a scale from 1 (he would strongly disagree) to 7 (he would strongly agree). After completing these measures, participants reported perceptions of Jacob's gender, race/ethnicity, age range, and sexual orientation with single-item measures. Participants reported their demographics (e.g., gender identity, age, sexual orientation, race/ethnicity) and were then debriefed and compensated. During the debrief, participants learned that the evaluation was designed for this study. All study materials can be found on OSF.

#### 10 | RESULTS AND DISCUSSION

#### 10.1 | Preliminary analyses

Study 3 data can be found on OSF (Maimon et al., 2023c). We calculated bivariate correlations among the measures of interest (see Table 2). We conducted chi-square tests to assess whether perceived identities of the target differed

**TABLE 2** Bivariate correlations among variables of interest in Study 3.

Variable	1	2	3	4	5
1. Perceived heterosexism	-				
2. Perceived sexism	0.95**				
3. Perceived racism	0.94**	0.95**	-		
4. Meta-SDO	0.84**	0.86**	0.87**	-	
5. Perceived moral disengagement	0.86**	0.87**	0.88**	0.89**	-

<sup>\*\*</sup>p < 0.01.

by trait condition. There were no significant differences in perceived gender,  $X^2(1) = 0.45$ , p = 0.500, or perceived age,  $X^2(4) = 6.21$ , p = 0.184, between the trait conditions. 98.7% of participants perceived the target as a man and 90.8% expected the target to be 20–39 years old. While 89.0% of participants perceived the target to be White, more participants expected the agreeable target to be Black, Asian, or Hispanic/Latinx than the disagreeable target,  $X^2(4) = 21.66$ , p < 0.001. Though 80.7% of participants perceived the target as heterosexual, more participants perceived the agreeable target to be gay, bisexual, or queer than the disagreeable target,  $X^2(4) = 34.78$ , p < 0.001.

We conducted independent samples t-tests to assess differences in target likeability and perceived agreeableness between the trait conditions. Supporting the effectiveness of the manipulation, participants perceived the target as more agreeable in the agreeable condition (M=3.0, SD=0.2) than in the disagreeable condition (M=1.1, SD=0.2), t(226)=74.22, p<0.001, d=9.84. Participants perceived the target as more likeable in the agreeable condition (M=6.0, SD=0.8) than in the disagreeable condition (M=2.3, SD=1.0), t(226)=30.16, p<0.001, d=4.00. Thus, we controlled for target likeability in subsequent analyses. Analyses excluding likeability can be found in the supplemental file on OSF and yield similar findings.

### 10.2 | Primary analyses

We conducted a MANCOVA to examine the effect of the agreeableness trait manipulation on perceived racism, perceived sexism, perceived heterosexism, meta-SDO, and perceived moral disengagement while controlling for likeability of the target. There was a statistically significant difference between the trait conditions on the combined dependent variables, F(5, 221)=14.92, p<0.001, Wilks'  $\Lambda=0.75$ ,  $\eta_p^2=0.25$ . Participants perceived the target as more heterosexist in the disagreeable condition ( $M_{\rm marg}=4.4$ , SE=0.2) than in the agreeable condition ( $M_{\rm marg}=3.1$ , SE=0.2), F(1, 225)=20.17, p<0.001,  $\eta_p^2=0.08$ . Participants

through meta-SDO and perceived moral disengageperceived the target as more sexist in the disagreeable condition ( $M_{\text{marg}} = 4.5$ , SE = 0.2) than in the agreeable condition  $(M_{\text{marg}} = 3.0, SE = 0.2), F(1, 225) = 23.69, p < 0.001, \eta_p^2 = 0.10.$ Participants also perceived the target as more racist in the disagreeable condition ( $M_{\text{marg}} = 4.4$ , SE = 0.2) than in the agreeable condition ( $M_{\text{marg}} = 3.0$ , SE = 0.2), F(1, 225) = 24.92, p < 0.001,  $\eta_p^2 = 0.10$ . Participants expected the target to be higher in SDO in the disagreeable condition ( $M_{\text{marg}} = 4.8$ , SE=0.1) than in the agreeable condition ( $M_{\text{marg}}=2.6$ , SE=0.2), F(1, 225)=64.50, p<0.001,  $\eta_p^2=0.22$ . Participants found in the supplemental file on OSF. expected the target to be more likely to morally disengage in the disagreeable condition ( $M_{\text{marg}} = 4.5$ , SE = 0.1) than in the agreeable condition ( $M_{\text{marg}} = 2.9$ , SE = 0.2), F(1, 225) = 37.65,  $p < 0.001, \eta_p^2 = 0.14.$ 

#### Serial mediation analyses 10.3

We conducted serial mediation analyses using Hayes' (2013) PROCESS Macro for SPSS 26. We assessed differences between the disagreeable (1) and agreeable conditions (0) using PROCESS model six with bias-corrected bootstrapped CIs and 10,000 resamples (Hayes, 2013), while controlling for likeability. We tested whether meta-SDO and perceived moral disengagement serially mediate the relationship between the trait conditions and perceived heterosexism, perceived sexism, and perceived racism (see Figure 1). There were significant indirect effects of target agreeableness on perceived heterosexism, B = 0.36, 95% CI = [0.17, 0.59], perceived sexism, B = 0.33, CI = [0.15, 0.56], and perceived racism, B = 0.36, CI = [0.17, 0.59], serially

ment. There were also significant indirect effects of target agreeableness on perceived heterosexism, B = 0.35, CI = [0.01, 0.80], perceived sexism, B = 0.35, CI = [0.03, 0.80]0.74], and perceived racism, B = 0.51, CI = [0.18, 0.94], through meta-SDO alone. There were no significant indirect effects of target agreeableness on the outcomes through perceived moral disengagement alone. Additional statistics of the mediation analyses can be

Consistent with our predictions and the results of Study 2, LGBQ participants perceived a disagreeable target to be more racist, more sexist, more heterosexist, higher in SDO, and more likely to morally disengage than an agreeable target while controlling for the likeability of the target. While most participants expected the target to be a straight, White, young man, more participants perceived the target to have a sexual minority or racial/ethnic minority identity when the target was disagreeable rather than agreeable.

Serial mediation results suggest that a disagreeable target was perceived as higher in SDO and subsequently more likely to morally disengage than an agreeable target, which in turn led to perceptions that a disagreeable target is more discriminatory than an agreeable target. These findings complement existing research which has found that people who self-report low agreeableness also report high SDO and high prejudice (Sibley & Duckitt, 2008), and those who self-report high SDO also report low moral reasoning and high prejudice (McFarland, 2010). Thus, these findings demonstrate that LGBQ laypeople perceive someone's disagreeableness to be an indicator that they

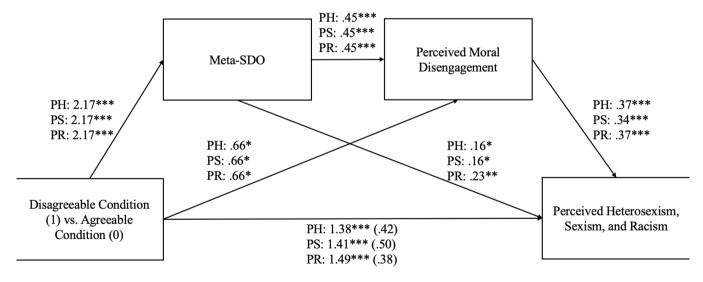


FIGURE 1 Results of Study 3 serial mediation analyses. Unstandardized coefficients are shown for all three analyses, with PH indicating results for perceived heterosexism, PS indicating results for perceived sexism, and PR indicating results for perceived racism. Likeability was included as a covariate in these analyses. The direct effects are included in parentheses next to the total effects. Asterisks indicate significant pathways (\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001).

4676494, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/jopy.12855 by Rutgers University Libraries, Wiley Online Library for rules of use; OA articles are governed by the applicable Cereative Commons Liensens and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Cereative Commons Liensens and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Cereative Commons Liensens and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Cereative Commons Liensens and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Cereative Commons Liensens and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library.

more strongly endorse social hierarchy, are less moral, and are more likely to discriminate against participants' ingroup (LGBQ people), as well as against racial/ethnic and gender minority group members than would someone who is agreeable.

#### 11 STUDY 4

The main goal of Study 4 was to demonstrate that disagreeableness itself serves as an indicator of prejudice and discrimination. Studies 2 and 3 identified relationships among target disagreeableness, meta-SDO, perceived moral disengagement, perceived discrimination, and anticipated stigma by comparing perceptions of agreeable and disagreeable targets. The Study 2 and 3 findings are consistent with the halo effect, which finds that perceptions of a person's traits, behaviors, and attributes are influenced by an overall positive or negative evaluation of the person (Lachman & Bass, 1985; Nisbett & Wilson, 1977). While we control for likeability in Studies 2-3, we went one step further in Study 4 to ensure that these relationships were not solely prompted by perceptions that agreeableness is a more positive trait than disagreeableness.

Specifically, in Study 4, we sought to compare perceptions of targets with personality traits that were perceived as similarly negative. To continue demonstrating that stigmatized groups broadly use disagreeableness as a cue to prejudice, Study 4 uses a participant sample of racial/ethnic minorities who were asked their impressions of a target who was depicted as either disagreeable or low in conscientiousness, using traits that were matched on perceived negativity. In addition, we used a different paradigm to manipulate traits to demonstrate the generalizability of these effects. We predicted that racial/ethnic minority participants would anticipate more race stigma and perceive a target as more sexist, more racist, higher in SDO, and more likely to morally disengage when the target was depicted as disagreeable rather than low in conscientiousness. We also examined whether perceived SDO and morality would help explain the relationship between target disagreeableness and perceived discrimination.

#### 12 **METHOD**

#### 12.1 **Participants**

We recruited 300 participants with racial/ethnic minority identities to participate in the study using Prolific Academic in Spring 2023. We excluded participants who

did not have a racial/ethnic minority identity (n=5), attempted the study more than once (n=6), failed two or more attention checks (n=4), and completed the study in under 1/3 of the median completion time (n=1). The final sample included 284 participants ( $M_{age} = 33.3$ , SD<sub>age</sub>=11.2; 49.6% men, 48.2% women, 2.3% another gender; 35.6% Black/African American, 31.0% Asian, 19.4% Multiracial, 12.0% Hispanic/Latinx, 1.4% Native American, 0.7% Pacific Islander; 75.4% heterosexual, 14.8% bisexual, 3.9% gay, 2.1% lesbian, 1.8% queer, 2.1% another sexual orientation). An a priori power analysis for MANOVA in G\*Power (Faul et al., 2009) suggested a need for at least 212 participants to detect a medium effect  $(f^2(V) = 0.0625)$  with 80% power.

#### Procedure and materials 12.2

Racial/ethnic minority participants signed up for the study on the Prolific platform. After providing informed consent, participants learned that the study was ostensibly focused on hiring perceptions and impressions of others. They read a job candidate evaluation that had ostensibly been completed following an interview with a candidate named Jacob. Participants were randomly assigned to read one of two candidate evaluations depicting Jacob as either disagreeable or low in conscientiousness. Jacob was either described as "stubborn and a bit arrogant at times" (disagreeable condition) or "disorganized and a bit lazy at times" (low conscientiousness condition). We pilot tested 18 personality traits and selected traits for this manipulation that were rated as similarly negative, ps>0.178. In both conditions, Jacob was also described as "outgoing." Additional trait pilot test details can be found in the supplemental file on OSF.

Participants completed attention checks, a manipulation check, and a measure of perceived agreeableness after reading the candidate evaluation. They then completed impression and filler measures in a randomized order. Participants completed measures of likeability  $(\alpha = 0.92)$ , perceived racism  $(\alpha = 0.77)$ , perceived sexism  $(\alpha = 0.85)$ , perceived moral disengagement  $(\alpha = 0.87)$ , and meta-SDO ( $\alpha$  = 0.91) of the target, Jacob, as they did in Study 3 (Ho et al., 2015; Moore et al., 2012; Sanchez et al., 2017). They also completed a three-item measure of anticipated race stigma (e.g., "I worry that the job candidate would treat me poorly based on my race";  $\alpha = 0.96$ ; Sanchez et al., 2017) on a scale from 1 (strongly disagree) to 7 (strongly agree). Participants then completed the same perceived identity measures and demographic measures from Study 3. Participants were debriefed and compensated, at which point they learned that the candidate evaluation was designed for this study. All study materials can be found on OSF.

**TABLE 3** Bivariate correlations among variables of interest in Study 4.

Variable	1	2	3	4	5
1. Anticipated race stigma	_				
2. Perceived sexism	0.68**	-			
3. Perceived racism	0.67**	0.83**	_		
4. Meta-SDO	0.55**	0.61**	0.62**	-	
5. Perceived moral disengagement	0.41**	0.43**	0.42**	0.52**	_

<sup>\*\*</sup>p < 0.01.

#### 13 RESULTS AND DISCUSSION

# 13.1 | Preliminary analyses

Study 4 data can be found on OSF (Maimon et al., 2023d). We winsorized three outliers in the likeability measure. We calculated bivariate correlations among the measures of interest (see Table 3). We conducted a series of chi-square tests to assess whether perceived identities of the target differed by trait condition. There were no significant differences in perceived gender,  $X^2(1) = 0.99$ , p = 0.320, or sexual orientation,  $X^{2}(4) = 8.09$ , p = 0.088, between the trait conditions. 99.6% of participants perceived the target as a man and 94.4% perceived the target to be straight. While 89.1% of participants perceived the target to be White, more participants perceived the low conscientious target to be Black or Asian than the disagreeable target,  $X^2(4) = 12.38$ , p = 0.015. Participants were more likely to perceive the disagreeable target to be older and the low conscientious target to be younger, X  $^{2}(4)=10.12$ , p=0.039. We conducted independent samples t-tests to assess differences in perceived agreeableness and target likeability between the trait conditions. Participants perceived the target as more agreeable in the low conscientious condition (M=2.2, SD=0.5) than in the disagreeable condition (M=2.0, SD=0.4), t(282)=3.34, p < 0.001, d = 0.40. Participants liked the low conscientious target (M=4.7, SD=0.9) more than the disagreeable target (M=4.1, SD=1.0), t(282)=5.46, p<0.001, d=0.65. We controlled for the perceived likeability of the target in subsequent analyses. Analyses excluding likeability can be found in the supplemental file on OSF and yield similar findings.

#### 13.2 | Main analyses

We conducted a MANCOVA to examine the effect of the trait manipulation on perceived racism, perceived sexism, anticipated race stigma, perceived moral disengagement, and meta-SDO while controlling for likeability of the target. There was a statistically significant difference between

the trait conditions on the combined dependent variables, F(5, 277) = 5.58, p < 0.001, Wilks'  $\Lambda = 0.91$ ,  $\eta_p^2 = 0.09$ . Participants anticipated more race stigma from the target in the disagreeable condition  $(M_{\text{marg}} = 3.5, SE = 0.1)$  than in the low conscientious condition ( $M_{\text{marg}} = 2.9, SE = 0.1$ ), F(1, SE = 0.1)281)=14.51, p < 0.001,  $\eta_p^2 = 0.05$ . Participants perceived the target as more sexist in the disagreeable condition  $(M_{\rm marg} = 3.7, SE = 0.1)$  than in the low conscientious condition  $(M_{\text{marg}} = 3.3, SE = 0.1), F(1, 281) = 11.23, p < 0.001,$  $\eta_p^2 = 0.04$ . Participants perceived the target as more racist in the disagreeable condition ( $M_{\text{marg}} = 3.6$ , SE = 0.1) than in the low conscientious condition ( $M_{\text{marg}} = 3.4$ , SE = 0.1),  $F(1,281) = 4.39, p = 0.037, \eta_p^2 = 0.02$ . Participants perceived the target as higher in SDO in the disagreeable condition  $(M_{\rm marg} = 3.9, SE = 0.1)$  than in the low conscientious condition  $(M_{\text{marg}} = 3.3, SE = 0.1), F(1, 281) = 18.98, p < 0.001,$  $\eta_n^2 = 0.06$ . Participants did not perceive the targets to significantly differ in moral disengagement between the trait conditions, F(1, 281) = 3.50, p = 0.063.

#### 13.3 | Serial mediation analyses

Although there was not a significant effect of the trait conditions on perceived moral disengagement when controlling for likeability, we conducted serial mediations with meta-SDO and perceived moral disengagement as mediators as we did in Study 3. We assessed differences between the disagreeable (1) and low conscientious conditions (0) using PROCESS model six with bias-corrected bootstrapped CIs and 10,000 resamples (Hayes, 2013), while controlling for likeability. We tested whether meta-SDO and perceived moral disengagement serially mediate the relationship between the trait conditions and anticipated race stigma, perceived sexism, and perceived racism (see Figure 2). There were significant indirect effects of trait condition on anticipated race stigma, B=0.28, 95% CI = [0.13, 0.46], perceived sexism, B = 0.26, CI = [0.12,0.43], and perceived racism, B=0.27, CI=[0.13, 0.45], through meta-SDO alone. However, the indirect effects of trait condition on the three outcome variables serially through meta-SDO and perceived moral disengagement and through perceived moral disengagement alone were

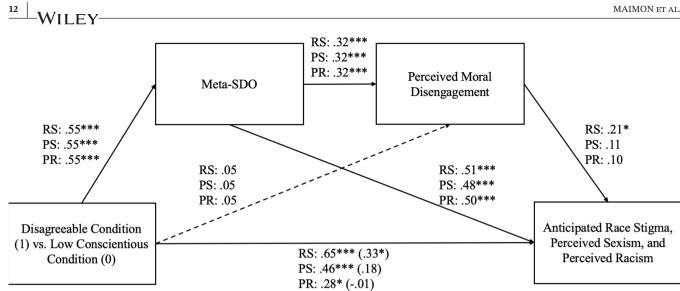


FIGURE 2 Results of Study 4 serial mediation analyses. Unstandardized coefficients are shown for all three analyses, with RS indicating results for anticipated race stigma, PS indicating results for perceived sexism, and PR indicating results for perceived racism. Likeability was included as a covariate in these analyses. The direct effects are included in parentheses next to the total effects. Asterisks indicate significant pathways (\*p<0.05, \*\*p<0.01, \*\*\*p<0.001).

not significant. Additional statistics of the mediation analyses can be found in the supplemental file on OSF.

Consistent with our predictions and the results of Studies 2 and 3, participants with racial/ethnic minority identities anticipated more race stigma and perceived a disagreeable target to be more racist, more sexist, and higher in SDO than a low conscientious target while controlling for likeability of the target. Because the disagreeable traits and low conscientious traits included in the manipulation were matched on perceived negativity, these findings suggest that disagreeableness itself, rather than negatively perceived traits in general, signals to people with racial/ethnic minority identities that a person is likely to be discriminatory. Although perceived moral disengagement did not significantly differ between the trait conditions, perceived moral disengagement was significantly positively correlated with the other outcomes of interest, rs > 0.40, ps < 0.001, as was found in Study 3.

While most participants expected the target to be a straight, White, young man, perceivers were more likely to perceive the target as Black, Asian, and young when the target was depicted as low in conscientiousness than when the target was disagreeable, but these effects were small. The mediation results suggest that the disagreeable target was perceived as higher in SDO than the low conscientious target, which in turn led to perceptions that the disagreeable target is more discriminatory than the low conscientious target. These mediation findings complement existing research and the findings from Study 3, demonstrating that disagreeableness itself is an indicator of SDO and discrimination.

#### GENERAL DISCUSSION 14

Across four studies, we investigated the relationships among perceived disagreeableness, perceived hierarchy endorsement, and perceived prejudice and discrimination. The present research suggests that people with stigmatized identities may have implicit personality theories (Borkenau, 1992) regarding the cooccurrence of disagreeableness, hierarchy endorsement, and discrimination. This work provides evidence that disagreeableness can serve as an identity-threatening cue to people with stigmatized identities (women, sexual minorities, and racial/ ethnic minorities). Identity threats can negatively impact psychological and physical health, education, and career outcomes among people with stigmatized identities (Casad et al., 2019; Emerson & Murphy, 2014; Major et al., 2013; Schmitt et al., 2014). Thus, identifying environmental and interpersonal factors that signal identity threat and foster identity safety among stigmatized identity group members will help ameliorate these pernicious consequences. The present research suggests that people with stigmatized identities expect disagreeable people to be more prejudicial, discriminatory, hierarchy-endorsing, and morally disengaged than agreeable and low conscientious people. These findings add to existing literature on implicit personality theory, cue utilization, threat cues, and the personality-prejudice link and suggest that a person's disagreeableness can influence perceptions of the person's values, behaviors, and prejudices.

As predicted in Study 1, women expect prejudiced people to have many traits associated with disagreeableness. They also expect some traits associated with being closed to experience to serve as indicators of prejudice. Consistent with our predictions, people with stigmatized identities perceived a disagreeable person to be more discriminatory toward their ingroup and other stigmatized identity groups, and to be higher in SDO than an agreeable or low conscientious person. Perceivers with stigmatized identities also anticipated more stigma and negative identity-based treatment from a disagreeable person than from an agreeable or low conscientious person. As predicted, the higher perceived SDO of disagreeable targets helped to explain the relationship between disagreeableness and perceptions of prejudice and discrimination. By controlling for target likeability in these analyses, these findings demonstrate that disagreeableness itself serves as a signal of discrimination and hierarchy endorsement.

In Study 3, LGBQ participants expected more moral disengagement from a disagreeable than an agreeable person. While perceptions of morality can help to explain the relationships among target disagreeableness, meta-SDO, and perceived discrimination, disagreeableness signals SDO and discrimination irrespective of perceptions of morality in both Studies 3 and 4. In both Studies 3 and 4, a greater number of participants expected the target to have a minoritized sexual or racial/ethnic identity when the target was depicted as agreeable or low in conscientiousness than when the target was depicted as disagreeable. Given that the disagreeable targets were perceived as more discriminatory than the agreeable and low conscientious targets, these findings complement research that suggests that White men are perceived as prototypical perpetrators of prejudice (Bucchianeri & Corning, 2013; Inman & Baron, 1996).

Study 2 demonstrated that women expect greater prejudice and perceive a target as more prejudicial and higher in SDO when the target is disagreeable rather than agreeable. Replicating and extending these findings with perceivers with a different stigmatized identity, LGBQ participants in Study 3 perceived a disagreeable target as more discriminatory, higher in SDO, and more morally disengaged than an agreeable target. To ensure that disagreeableness itself serves as a cue of discrimination to people with stigmatized identities, participants in Study 4 learned about a target that was depicted as either disagreeable or low in conscientiousness. The traits included in the Study 4 manipulation were perceived to be similarly negative. Even when comparing perceptions of a disagreeable target to perceptions of a target with similarly negative traits, the disagreeable target was perceived as more discriminatory and higher in SDO than the low conscientious target, demonstrating these findings are not due solely to a halo effect (Nisbett & Wilson, 1977). Thus, the present research demonstrates that people with stigmatized identities expect disagreeable people to be

prejudicial toward their ingroup, supportive of social hierarchy, and discriminatory toward stigmatized groups.

#### Strengths, limitations, and future directions

The present research adds to the literature on implicit personality theory, cue utilization, identity threat, and the personality-prejudice link and provides insight into multiple directions for future research. This research establishes a perceived link between disagreeableness and discrimination but focuses on targets who are primarily perceived as White men. While the identities of the target were not explicitly stated in Studies 3 and 4, future research should manipulate personality traits of targets with diverse identities (e.g., women, racial/ethnic minorities, LGBTQIA+ people) to examine whether people perceive disagreeableness to be an indicator of discrimination for targets with a variety of identities. Future research should also examine the types of prejudice that are perceived to be associated with disagreeableness. For example, perceivers may expect disagreeable people to be prejudiced toward lower status groups but not toward high status or neutral status groups. Future work should explore these perceived relationships. Future research could also examine whether people expect different facets of traits like agreeableness to be common among prejudiced people.

The experimental paradigms in the present research include clear manipulations of a target's personality traits. The personality traits were ostensibly self-reported in the Study 2 personality profile, and reported by colleagues and acquaintances in Studies 3 and 4. While it is common for people to learn about someone's personality secondhand (e.g., from a friend, colleague), future research should also conceptually replicate the present findings with behavioral indicators of personality and other subtler manipulations. For example, participants could learn about a target's personality during an in-lab interaction or by reading a dating profile or social media bio. In-lab interaction studies could also assess how learning about personality impacts perceivers' behavior during an interaction (e.g., distancing, connection-seeking).

It would also be beneficial to explore whether relationship and power dynamics impact how personality traits are perceived. For example, a target's role as a colleague, friend, medical professional, or boss may impact whether certain traits are perceived as identity-threatening (Philip & Maimon, 2023). Stereotypes can also impact how traits are perceived for different identity group members. Rudman and colleagues have found that people perceived as counterstereotypical (e.g., agentic women) and thus not adhering to identity-based prescriptive roles can

face backlash from others (Chaney et al., 2017; Rudman this project. Diana T. Sanchez took part in the conceptuet al., 2012). It is thus possible that perceivers who endorse alization, methodology design, investigation, reviewing gender stereotypes would negatively perceive a disagreeand editing, and funding acquisition for this project. Siris able woman due to a belief that she is violating prescriptive Rodriguez contributed to the formal analysis, investigastereotypes rather than due to a belief that the disagreetion, reviewing and editing, visualization, and funding able woman is prejudicial. Future work should consider acquisition for this project. Analia F. Albuja was involved the role of prescriptive stereotypes when investigating the in the formal analysis, reviewing and editing, and visualiperceived link between prejudice and personality traits. zation for this project. CONFLICT OF INTEREST STATEMENT Concluding remarks

# 14.2

The present research finds that disagreeable people are consistently perceived to be more prejudicial, hierarchyendorsing, and discriminatory than agreeable or lowconscientious people. Higher perceived SDO helps to explain the perceived links among disagreeableness, prejudice, and discrimination. This research provides preliminary evidence for a perceived relationship between disagreeableness and prejudice. Importantly, the present work does not indicate that disagreeable people are indeed prejudicial and discriminatory, but rather demonstrates that people with stigmatized identities expect disagreeable people to be discriminatory.

While this research suggests that people with stigmatized identities perceive disagreeableness to serve as a cue of hierarchy endorsement and discrimination, more work is needed to further understand when, why, and for whom certain personality traits can be identity-threatening. Identifying interpersonal factors, such as personality traits, that are perceived as cues of identity threat can provide greater insight into stigmatized identity group members' experiences and behaviors in various interpersonal interactions and social environments. Given the harmful consequences of experiencing identity threats (Casad et al., 2019; Emerson & Murphy, 2014; Major et al., 2013; Schmitt et al., 2014), it is vital that research continues to identify interpersonal cues of identity threats and ways to foster identity safety among stigmatized identity groups.

#### ACKNOWLEDGMENTS

This research was supported in part by a grant from the Aresty Research Center. Data, syntax, study materials, and a supplemental file can be found on OSF at the following https://osf.io/qxkjw/?view only=aef02f2fed5145c 68d7c21ed2a2d4e50. Studies 1-4 were not preregistered. A pre-registration for Supplemental Study 2 can be found on OSF at the following link: 10.17605/OSF.IO/J4NP2.

#### **AUTHOR CONTRIBUTIONS**

Melanie R. Maimon took part in the conceptualization, methodology design, formal analysis, investigation, writing and editing, visualization, and funding acquisition for

The authors have no conflicting interests to declare.

#### **ETHICS STATEMENT**

All study procedures were approved by the Rutgers Arts and Sciences Institutional Review Board.

#### ORCID

*Melanie R. Maimon* https://orcid. org/0000-0003-3355-2218

*Diana T. Sanchez* https://orcid.org/0000-0002-8684-6183 Siris Rodriguez https://orcid.org/0009-0005-5343-590X Analia F. Albuja https://orcid.org/0000-0002-9156-2628

#### **ENDNOTES**

- <sup>1</sup> The open-response questions enabled participants to report any traits they perceive to be indicators of prejudice. Among the Big Five traits, participants mentioned traits and characteristics corresponding to disagreeableness over six times more frequently than any of the other Big Five traits.
- An error occurred when displaying measures in a randomized order on Qualtrics that resulted in a small subset of the sample (n=52) not completing the meta-SDO measure. As a result, all analyses with meta-SDO were also run with multiple imputations (see supplement on OSF). Results were similar in analyses with and without multiple imputations.
- We selected the name Jacob for the target as it has been ranked in the top five most popular names for boys in the United States in the last three decades (Social Security Administration, 2022).

#### REFERENCES

Akrami, N., Ekehammar, B., & Bergh, R. (2011). Generalized prejudice: Common and specific components. Psychological Science, 22(1), 57-59. https://doi.org/10.1177/0956797610390384

Akrami, N., Ekehammar, B., & Yang-Wallentin, F. (2011). Personality and social psychology factors explaining sexism. Journal of Individual Differences, 32(3), 153-160. https://doi. org/10.1027/1614-0001/a000043

Blanch-Hartigan, D., Andrzejewski, S. A., & Hill, K. M. (2012). The effectiveness of training to improve person perception accuracy: A meta-analysis. Basic and Applied Social Psychology, 34(6), 483-498. https://doi.org/10.1080/01973533.2012.728122

Borkenau, P. (1992). Implicit personality theory and the five-factor model. Journal of Personality, 60(2), 295-327. https://doi. org/10.1111/j.1467-6494.1992.tb00975.x

MAIMON ET AL. WILFY 15

- Bucchianeri, M. M., & Corning, A. F. (2013). Disambiguating discriminatory acts of typical versus atypical perpetrators: The moderating role of need for cognitive closure: Disambiguating discriminatory acts. *Journal of Applied Social Psychology*, *43*, E293–E306. https://doi.org/10.1111/jasp.12027
- Casad, B. J., Petzel, Z. W., & Ingalls, E. A. (2019). A model of threatening academic environments predicts women STEM majors' self-esteem and engagement in STEM. *Sex Roles*, *80*(7–8), 469–488. https://doi.org/10.1007/s11199-018-0942-4
- Chaney, K. E., Rudman, L. A., Fetterolf, J. C., & Young, D. M. (2017). Paying a price for domestic equality: Risk factors for backlash against nontraditional husbands. *Gender Issues*, 1–20, 3–22. https://doi.org/10.1007/s12147-017-9207-8
- Chaney, K. E., & Sanchez, D. T. (2018). Gender-inclusive bathrooms signal fairness across identity dimensions. Social Psychological and Personality Science, 9(2), 245–253. https:// doi.org/10.1177/1948550617737601
- Chaney, K. E., Sanchez, D. T., & Maimon, M. R. (2019). Stigmatizedidentity cues in consumer spaces. *Journal of Consumer Psychology*, 29(1), 130–141. https://doi.org/10.1002/jcpy.1075
- Chaney, K. E., Sanchez, D. T., & Remedios, J. D. (2021). Dual cues: Women of color anticipate both gender and racial bias in the face of a single identity cue. *Group Processes & Intergroup Relations*, 24(7), 1095–1113. https://doi.org/10.1177/13684 30220942844
- Cunningham, G. B., Ferreira, M., & Fink, J. S. (2009). Reactions to prejudicial statements: The influence of statement content and characteristics of the commenter. *Group Dynamics: Theory, Research, and Practice*, 13(1), 59–73. https://doi.org/10.1037/ a0012967
- Ekehammar, B., Akrami, N., Gylje, M., & Zakrisson, I. (2004). What matters most to prejudice: Big Five personality, social dominance orientation, or right-wing authoritarianism? *European Journal of Personality*, 18(6), 463–482. https://doi.org/10.1002/per.526
- Emerson, K. T. U., & Murphy, M. C. (2014). Identity threat at work: How social identity threat and situational cues contribute to racial and ethnic disparities in the workplace. *Cultural Diversity and Ethnic Minority Psychology*, *20*(4), 508–520. https://doi.org/10.1037/a0035403
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. https://doi.org/10.3758/BRM.41.4.1149
- Frieze, I., & Weiner, B. (1971). Cue utilization and attributional judgments for success and failure. *Journal of Personality*, *39*(4), 591–605. https://doi.org/10.1111/j.1467-6494.1971.tb00065.x
- Gerson, M. W., & Neilson, L. (2014). The importance of identity development, principled moral reasoning, and empathy as predictors of openness to diversity in emerging adults. *SAGE Open*, 4(4), 1–11. https://doi.org/10.1177/2158244014553584
- Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. The Guilford Press.
- Ho, A. K., Sidanius, J., Kteily, N., Sheehy-Skeffington, J., Pratto, F., Henkel, K. E., Foels, R., & Stewart, A. L. (2015). The nature of social dominance orientation: Theorizing and measuring preferences for intergroup inequality using the new SDO7 scale. *Journal of Personality and Social Psychology*, 109(6), 1003–1028.

- Howansky, K., Maimon, M., & Sanchez, D. (2021). Identity safety cues predict instructor impressions, belonging, and absences in the psychology classroom. *Teaching of Psychology*, 49(3), 212–217. https://doi.org/10.1177/0098628321990362
- Inman, M. L., & Baron, R. S. (1996). Influence of prototypes on perceptions of prejudice. *Journal of Personality and Social Psychology*, 70(4), 727–739.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). The Guilford Press.
- Koehn, M. A., Jonason, P. K., & Davis, M. D. (2019). A personcentered view of prejudice: The Big Five, Dark Triad, and prejudice. *Personality and Individual Differences*, *139*, 313–316. https://doi.org/10.1016/j.paid.2018.11.038
- Lachman, S. J., & Bass, A. R. (1985). A direct study of halo effect. *The Journal of Psychology*, 119(6), 535–540.
- Maimon, M. R., Howansky, K., & Sanchez, D. T. (2023). Fostering inclusivity: Exploring the impact of identity safety cues and instructor gender on students' impressions and belonging. *Teaching of Psychology*, 50(2), 105–111. https://doi.org/10.1177/00986283211043779
- Maimon, M. R., Sanchez, D. T., Rodriguez, S., & Albuja, A. F. (2023a). *Personality cues Study 1 data for OSF.sav* [Data set]. OSF. https://osf.io/qxkjw/?view\_only=aef02f2fed5145c68d7c 21ed2a2d4e50
- Maimon, M. R., Sanchez, D. T., Rodriguez, S., & Albuja, A. F. (2023b). *Personality cues Study 2 data for OSF.sav* [Data set]. OSF. https://osf.io/qxkjw/?view\_only=aef02f2fed5145c68d7c 21ed2a2d4e50
- Maimon, M. R., Sanchez, D. T., Rodriguez, S., & Albuja, A. F. (2023c). *Personality cues Study 3 data for OSF.sav* [Data set]. OSF. https://osf.io/qxkjw/?view\_only=aef02f2fed5145c68d7c 21ed2a2d4e50
- Maimon, M. R., Sanchez, D. T., Rodriguez, S., & Albuja, A. F. (2023d). *Personality cues Study 4 data for OSF.sav* [Data set]. OSF. https://osf.io/qxkjw/?view\_only=aef02f2fed5145c68d7c 21ed2a2d4e50
- Major, B., Mendes, W. B., & Dovidio, J. F. (2013). Intergroup relations and health disparities: A social psychological perspective. Health Psychology, 32(5), 514–524. https://doi.org/10.1037/a0030358
- McCrae, R. R., & Costa, P. T. (2008). The five–factor theory of personality. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 159–181). The Guilford Press.
- McFarland, S. (2010). Authoritarianism, social dominance, and other roots of generalized prejudice. *Political Psychology*, *31*(3), 453–477. https://doi.org/10.1111/j.1467-9221.2010.00765.x
- Moore, C., Detert, J. R., Klebe Treviño, L., Baker, V. L., & Mayer, D. M. (2012). Why employees do bad things: Moral disengagement and unethical organizational behavior. *Personnel Psychology*, 65(1), 1–48. https://doi.org/10.1111/j.1744-6570.2011.01237.x
- Murphy, M. C., Steele, C. M., & Gross, J. J. (2007). Signaling threat: How situational cues affect women in math, science, and engineering settings. *Psychological Science*, *18*(10), 879–885. https://doi.org/10.1111/j.1467-9280.2007.01995.x
- Ng, D. X., Lin, P. K. F., Marsh, N. V., Chan, K. Q., & Ramsay, J. E. (2021). Associations between openness facets, prejudice, and

- tolerance: A scoping review with meta-analysis. *Frontiers in Psychology*, *12*, 1–23. https://doi.org/10.3389/fpsyg.2021.707652
- Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology*, *35*(4), 250–256.
- Philip, J. S., & Maimon, M. R. (2023). Interpersonal identity cues: The effect of therapist identity on expectations for the therapeutic relationship. *Psi Chi Journal of Psychological Research*, 28(1), 67–78. https://doi.org/10.24839/2325-7342.JN28.1.67
- Pietri, E. S., Johnson, I. R., & Ozgumus, E. (2018). One size may not fit all: Exploring how the intersection of race and gender and stigma consciousness predict effective identity-safe cues for Black women. *Journal of Experimental Social Psychology*, 74, 291–306. https://doi.org/10.1016/j.jesp.2017.06.021
- Purdie-Vaughns, V., Steele, C. M., Davies, P. G., Ditlmann, R., & Crosby, J. R. (2008). Social identity contingencies: How diversity cues signal threat or safety for African Americans in mainstream institutions. *Journal of Personality and Social Psychology*, 94(4), 615–630. https://doi.org/10.1037/0022-3514.94.4.615
- Purdie-Vaughns, V., & Walton, G. M. (2011). Is multiculturalism bad for African Americans? Redefining inclusion through the lens of identity safety. In L. R. Tropp & R. K. Mallett (Eds.), *Moving beyond prejudice reduction: Pathways to positive intergroup relations* (pp. 159–177). American Psychological Association. https://doi.org/10.1037/12319-008
- Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. https://doi.org/10.1037/h0092976
- Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E., & Nauts, S. (2012).
  Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology*, 48(1), 165–179. https://doi.org/10.1016/j.jesp.2011.10.008

- Sanchez, D. T., Chaney, K. E., Manuel, S. K., Wilton, L. S., & Remedios, J. D. (2017). Stigma by prejudice transfer: Racism threatens White women and sexism threatens men of color. *Psychological Science*, *28*(4), 445–461. https://doi.org/10.1177/0956797616686218
- Schmitt, M., Branscombe, N., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological Bulletin*, *140*(4), 921–948. https://doi.org/10.1037/a0035754
- Sibley, C. G., & Duckitt, J. (2008). Personality and prejudice: A meta-analysis and theoretical review. *Personality and Social Psychology Review*, *12*(3), 248–279. https://doi.org/10.1177/1088868308319226
- Slovic, P. (1966). Cue-consistency and cue-utilization in judgment. The American Journal of Psychology, 79(3), 427–434. https://doi.org/10.2307/1420883
- Social Security Administration. (2022, March). *Top names of the* 1990s. https://www.ssa.gov/oact/babynames/decades/names 1990s.html
- Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. *34*, pp. 379–440). Academic Press.

How to cite this article: Maimon, M. R., Sanchez, D. T., Rodriguez, S., & Albuja, A. F. (2023). Personality traits as identity threat cues: Stigmatized perceivers infer prejudice from disagreeableness. *Journal of Personality*, 00, 1–16. https://doi.org/10.1111/jopy.12855