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Intersectionality, Gendered Racism, and the Consideration of Coworker Guilt

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I. Introduction

This study explores whether implicit or explicit biases (racial or gender) influence the likelihood that an employee suspects a coworker in a case of workplace theft. Implicit biases are associations and reactions that emerge automatically and often without awareness upon encountering a relevant stimulus (Gawronski and Bodenhausen, 2006; Greenwald and Banaji, 1995). For instance, in the social domain, stereotypical concepts such as "criminal" and "dangerous" automatically come to mind for many people when encountering young Black men or viewing images of them (Hester and Gray, 2018). People typically hold more unconsciously negative attitudes or feelings about racial/ethnic outgroup members than ingroup members (Axt, Ebersole, and Nosek, 2014). Further, people also learn attributes associated with gender labels, resulting in habitual and often unconscious behaviors toward people based on gender.

Implicit bias stands in contrast to more explicit forms (Carter and Murphy, 2015), of which people are generally consciously aware and can, when willing, identify and communicate with others (Dovidio and Gaertner, 2010). Research suggests that both biases can shape human judgment, decision-making, or behavior (Bertrand and Mullainathan, 2004), though often in different ways (Dasgupta, 2004; Dovidio, Kawakami, and Gaertner, 2002). There is abundant social psychological evidence that biases against women and minorities persist in that more covert and nonconscious form. The evidence from various social domains suggests that implicit biases may also influence workplace peer reporting or whistleblowing (Scheetz, Adikaram, and Ong, 2023; Costin, Mason, and Rinaldo, 2024). Social psychological experiments also demonstrate difficulty in getting people to attend to "individuating information" (relevant information about the individuals under consideration) in assessing others instead of relying on stereotypes about group differences.

The value of workplace whistleblowing processes rests upon the assumption and expectation that there is impartiality. A hurdle to objectivity is the presence of biases, yet implicit bias is an often-ignored factor when reviewing workplace whistleblowing (Pearson, 2021). This bias can subsequently lead to adverse outcomes for members of traditionally marginalized groups, such as punishment for the wrong person and a lack of trust in the investigative function. While all employees expect to be treated fairly and impartially during workplace investigations, members of marginalized communities rely on impartiality to avoid the well-documented disparities that permeate the criminal justice system, often leading to harsher penalties than for others (Nembhard and Robin, 2021; Clemons, 2014; Kovera, 2019). The extant literature does not comprehensively address how bias impacts the presumed guilt or innocence of someone alleged to have committed an offense (or whether an offense was committed). We respond to the Egan (2021) call for further study in accounting on issues of disempowerment, marginalization, discrimination, and bigotry.

Using 130 participants recruited through Amazon Web Services mTurk, we survey whether the "employee" suspects a coworker in a case of workplace theft and if and which biases influence their choice. There are four suspects (Black man, Black woman, White man, White woman) in our theft scenario. We ask participants about the likelihood of each suspect committing the theft and their choice of the single most likely culprit at two stages, before and after providing details on the suspect's incentives and opportunities. We measure the participants' explicit and implicit racial and gender biases, as well as their political ideology, fraud tolerance, and a self-assessment of how important their race, gender, and religion are to their sense of self. Additionally, we collect a battery of demographic data, such as the participants' race, gender, geographic location, and education level, as the extant literature shows that these variables relate to bias.

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Based on prior research, we would expect that higher levels of bias would be related to the suspected guilt of a coworker who is Black and male (Costin et al., 2024). In contrast to expectations, we find that explicit sexism and implicit sexism are associated with ratings of the likelihood of guilt for the Black female suspect and that explicit sexism and racism and their interaction are associated with the choice of the Black female suspect as the most likely culprit. These biases are most pronounced when more information is available about the suspects rather than in the initial impression. The bias becomes more evident after the participants receive more details about the case and more facts about the suspects when additional information regarding the White male points most participants toward him. In contrast to some prior literature, explicit bias drives behavioral effects more directly regarding suspicion of the Black female suspect, compared to implicit bias. While implicit and explicit biases may lead someone to choose a suspect based on race, additional relevant information appears to have a stronger overall effect on culprit choice.

Our findings contribute to the fraud and forensics accounting and the implicit and explicit bias literature, particularly the nascent literature on gendered racism and intersectional criminology. We corroborate prior findings that individuals may be predisposed to suspect their Black coworkers of wrongdoing, partly due to their implicit and explicit biases. We show that demographic factors such as gender, education, age, and political ideology are predictive of initial culprit choices. We show that even with additional information suggesting that the White male is the suspect who committed the theft, explicit biases can survive the addition of non-supportive evidence (Lord, Ross, and Lepper, 1979) and lead to the implication of Black coworkers for theft.

We organize the remainder of this paper as follows. Section II discusses prior literature and the development of our research questions. In Section III, we describe the methodology. In Section IV, we present our results, and in Section V, we discuss the implications of our research.

II. Background and Research Question

Forms of Bias: Explicit and Implicit

There are two forms of bias identified in the literature: explicit and implicit. With explicit bias, individuals are conscious of their feelings and attitudes and intentionally conduct related behaviors. Explicit bias is processed neurologically at a conscious level as declarative, semantic memory, and in words (Fridell, 2013). Explicit bias can take the form of overt racism or sexism. Research shows that explicit bias favors men in hiring, promotion, and career opportunities (Eagly and Carli, 2007), leads to the underrepresentation of women and racial minorities in certain professions (Espinosa, 2019), and results in the overrepresentation of certain racial groups in the criminal justice system (Smith, Levinson, and Robinson, 2014). Bass (2021) finds that explicit racial bias is significantly associated with negative evaluations of wrongdoing and harsher sentencing for Black suspects.

Implicit bias operates outside of a person's awareness and can directly contradict their espoused beliefs and values (Amodio and Mendoza, 2010). Unconscious attitudes toward members of different demographic groups, including racial, ethnic, and national origin minoritized populations, and religious, gender, and sexual minorities, can have a non-trivial impact on evaluations of or beliefs about them (FitzGerald and Hurst, 2017; Maina, Belton, Ginzberg, Singh, and Johnson, 2018). Implicit bias research shows adverse consequences for disfavored groups in settings such as the criminal justice system (Clemons, 2014; Levinson, Cai, and Young, 2010), the workplace (Banaji and Greenwald, 2013), and education (Staats, 2016). Empirical evidence suggests that explicit bias has declined over time. However, implicit bias has become more prevalent (Payne, Vuletich, and Brown-Iannuzzi, 2019), particularly for race and gender, due to increased social awareness and societal norms against discrimination. Research using implicit association tests (IAT) consistently demonstrates that implicit biases remain prevalent (Vela et al., 2022).

Forms of Bias: Racial and Gender

Sociologists demonstrate how explicit racism and sexism continue to drive workplace inequality. Interviews and court filings show that explicit bias works to maintain and strengthen social hierarchies in the current employment system by minimizing and denigrating minority and women complainants, subjecting these employees to harmful stereotypes and producing disastrous consequences, such as damaged professional reputations, job loss, and bankruptcy, while uplifting narratives crafted by managerial authority (Berrey, Nelson, and Nielsen 2017).

Other studies show that Blacks have increased death rates in regions where population-level measures (i.e., survey responses from multi-racial samples) reveal more explicit anti-Black attitudes (Kennedy, Kawachi, Lochner, Jones, and Prothrow-

Stith, 1997; Lee, Kawachi, Muennig, and Hatzenbuehler, 2015). Similarly, Blacks die at a higher rate in regions where more racist Internet searches are conducted (Chae et al., 2015), and sexual minorities have shorter life expectancies in regions where population-level measures reveal more anti-gay attitudes (Hatzenbuehler, Bellatorre, et al., 2014).

Implicit racial bias can result from either positive or negative evaluations related to perceptions of race (Noles, 2014). Numerous studies show people harbor negative implicit associations against stereotyped group members (Greenwald, Poehlman, Uhlmann, and Banaji, 2009). A review of more than 2.5 million completed Black/White IATs finds that White, Native American, Hispanic, Asian, and multi-racial participants demonstrate strong implicit pro-White and anti-Black sentiments. People react faster to words consistent with Black stereotypes, such as athletic, musical, poor, or promiscuous, and White stereotypes, such as intelligent, ambitious, uptight, and greedy (Wittenbrink, Judd, and Park 1997). There are also strong associations between Black and guilty relative to White and guilty, which predicts how mock jurors evaluate ambiguous evidence (Levinson, Cai, and Young 2010).

Similarly, implicit gender bias is the stereotypical attitudes or prejudices towards specific genders based on the traditional traits that define masculinity or femininity (Hamberg, 2008). Men and women most likely associate males with traits of strength and achievement when primed with words like bold, mighty, and power. Men and women are more likely to associate 'female' with weakness; however, women show this association when the weak words are positive, such as fine, flower, and gentle. Women do not show this pattern when the weak words are negative, such as feeble, frail, and scrawny (Rudman, Greenwald, and McGhee 2001). Research identifies implicit gender bias as a factor in the non-prosecution of cases (Leahy, 2020), jury verdicts (Wilczynski, 1997), sentencing (McCoy and Gray, 2007), and typecasting of women as victims and men as perpetrators (Reynolds et al., 2020).

Intersectionality (Race x Gender)

The multiple social categories to which individuals belong are interdependent and interact to influence perceptions (Else-Quest and Hyde, 2016), such that one aspect of identity (e.g., gender) may intensify the inequalities faced because of another (e.g., race) (Parent, DeBlaere, and Moradi, 2013). Research shows that intersectional forces can shape all elements of stereotyping, from the activation of stereotypes (Johnson, Freeman, and Pauker, 2012) to how people apply them to targets (Ghavami and Peplau, 2013) and to the patterns of discrimination that unfold in their wake (Hall, Galinsky, and Phillips, 2015).

Race is gendered, as thinking about either individual category in unqualified terms is tenuous (Johnson, Freeman, and Pauker (2012). "Gendered racism," coined by Essed (1991), describes how racism and sexism "narrowly intertwine and combine under certain conditions into one, hybrid phenomenon" (p. 31). A person with two marginalized social identities, referred to as double jeopardy, will experience more discrimination than targets with only one, who experience more discrimination than targets with no marginalized identities. Based on double jeopardy, Black women, compared to White women, Black men, or White men, should experience the most discrimination because they have both a marginalized racial identity and a marginalized gender identity. However, the subordinate male target hypothesis is a view of intersectionality that argues that people with multiple subordinate-group identities experience less discrimination than what would be predicted by double jeopardy (Veenstra, 2013). Specifically, the hypothesis suggests that bias against men of subordinate groups (i.e., Black men) is greater than that experienced by women of the same subordinate groups (i.e., Black women) (Veenstra, 2013).

Intersectional criminology necessitates a critical reflection on the impact of interconnected identities and statuses of individuals and groups concerning their presumption as criminals, their experiences with crime, the societal control of crime, and any crime-related issues (Potter, 2013, 2015). This interaction is especially important as recent research has confirmed that Black women are more likely to be subject to such stereotypes (McCorkel, 2013). Consequently, individuals may view Black women as more likely to commit a crime than other suspects.

Research Question

It has already been established that the prevalence and nature of bias differ by group. For example, more educated people exhibit less explicit bias, whereas implicit bias is generally uncorrelated with education (Nosek et al., 2007; Payne et al., 2010). Ideologies favoring hierarchies, including conservative political ideologies, social dominance orientation, and authoritarianism, show a strong association with explicit bias but a weak association with implicit bias (Cunningham, Nezlek, and Banaji, 2004; Nosek, Greenwald, and Banaji, 2007; Payne et al., 2010). Prior literature shows mixed results on

other characteristics that relate to bias. Because of the exploratory nature of our study, we use the preceding literature to develop our research question about bias in the accounting context of whistleblowing/peer reporting:

RQ: *Does bias (implicit or explicit) influence perceptions of coworker guilt associated with workplace wrongdoing?*

III. Methods

This study is exploratory, and we conduct a "survey using a case".[1] In this research method, a survey is designed specifically around a detailed case study to gather information about a specific situation, individual, or event, allowing for deep analysis. As in other case study survey research, we ask questions to examine individual self-reports of opinions, behaviors, abilities, beliefs, or knowledge (Mills, Durepos, and Wiebe, 2010). Then, we analyze the responses to describe population trends or to test questions. Our study does not involve an experimental manipulation of conditions. We include demographic control variables, as they have been found relevant elsewhere.

Scenario

In the first stage, we use a video case to provide participants with allegations of suspected workplace wrongdoing and background information. We modified an existing, well-known video from "When We Prey" from Red Flag Mania on a suspected theft at a fictitious church.[2] In the case facts, we inform participants that several parishioners have reported that the amount shown on their year-end Statement of Contributions was lower than the amount they had given. These parishioners have also indicated that they dropped cash off at the church office during the week with one of the employees or handed the cash to one of those employees on Sunday. We present participants with pictures and organizational titles for four members of the finance team that are suspected of the theft (in randomized order): Doug (financial secretary, White man), Ruben (head teller, Black man), Robin (office assistant, Black woman), and Tammy (treasurer, White woman).

We ask participants to assume the role of the church's facilities manager, who oversees the operations of all physical facilities and manages the volunteers who serve the facilities' needs for services, weekly activities, and special events. Participants assess the likelihood that each suspect committed the misdeed and then choose one as the most likely culprit. Next, we provide the pressures facing the suspects and potential opportunities for them to steal. Then, we repeat the questions about the likelihood of guilt and the choice of the most likely culprit.

Following the case, we measure participants' implicit and explicit biases using previously established scales (discussed in the section on Independent Variables), ask about their political ideology and fraud tolerance, and question them about the importance of race, gender, and religion to their sense of identity. We also collect the demographic data shown in the literature as predictors of judgment and decision-making, such as race, gender, immigration status, and education level.

Participants

We recruit participants through Amazon Web Services mTurk. We exclude content non-responsive participants from among the 399 participants who appear to have responded to nearly all the protocol. Those not responding to research stimuli (content non-responsive) are identified by excessive speed in responding (<21 minutes, based on a sharp drop off in the time elapsed histogram below this point), by multiple self-contradictory responses indicating random responding to the survey questions (e.g., responding "0 children in the home" and "three children under 18 years old in the home"), by multiple highly implausible responses[3] (e.g., endorsement of being a law enforcement professional and an attorney and an accountant), or by the failure of multiple knowledge checks, indicating a lack of attention to the research stimuli. Content non-responsive participants are occasionally excluded for failing more than one of these criteria. Because of the length and complexity of our research protocol, we did not exclude participants who provided only one implausible response. Of the 156 participants who complete our instrument, 130 provide responses meeting all of the inclusion criteria for valid responses.

Participants range from 22 to 72 years of age, with a mean age of 43, and 58 (44.62%) are female. In line with the U.S. Census, participants can indicate more than one race/ethnicity. There are 103 (79.23%) White participants, 15 (11.54%) Black, 11 (8.46%) Asian, and seven (5.38%) Hispanic. Seventy (53.85%) report an affiliation with Christianity, while 10

[1] This study was reviewed by the IRB and deemed exempt.
[2] Adapted from Red Flag Mania (2020) https://vimeo.com/333590920
[3] Based on human clerical error estimates of around 1% from multiple sources, a single implausible response is an overly stringent cutoff for eliminating a participant. Given the length of the research protocol, the expected value of response errors per person is 1.

(7.69%) choose a different religion, and 50 (38.46%) have no religion. Forty-one (31.54%) grew up in a metro area (population > 500,000), 29 (22.31%) in an urban area (population between 50,000 and 500,000), and 60 (46.15%) in a small city or rural area (population < 50,000 people). When asked to select a political ideology, 78 (60.0%) identify as either liberal or very liberal, 18 (13.85%) as moderate, and 33 (25.38%) as conservative or very conservative. The majority, 83 (63.85%), hold either a college or postgraduate degree, while 27 (20.77%) have some college education. Eighty-seven (66.92%) participants are employed full-time, with 59 (45.38%) indicating a household income of less than $50,000. Participant demographic data is in Table 1.

Table 1: Participant Demographic Information

		N	% of sample
Gender	Female	58	44.62%
	Male	72	55.38%
Race[4]	White	103	79.23%
	Hispanic or Latino	7	5.38%
	Black	15	11.54%
	Asian American or Asian	11	8.46%
	Another identity	3	2.31%
Birth Location	Large Metro Area	23	17.69%
	Metro Area	18	13.85%
	Medium Urban Area	15	11.54%
	Small Urban Area	14	10.77%
	Small City	24	18.46%
	Town or Village	10	7.69%
	Rural Area	26	20.00%
Political Ideology	Very Liberal	23	17.69%
	Liberal	55	42.31%
	Moderate	18	13.85%
	Conservative	22	16.92%
	Very Conservative	11	8.46%
	Unsure/none of these	1	0.77%
Education	Less than High School	1	0.77%
	Some High School	1	0.77%
	High School Diploma	18	13.85%
	Some College	27	20.77%
	College Degree	71	54.62%
	Postgraduate Degree	12	9.23%
Household Income	Less than $25,000	26	20.00%
	$25,000 – $34,999	8	6.15%
	$35,000 – $49,999	25	19.23%
	$50,000 – $74,999	40	30.77%
	$75,000 – $99,000	17	13.08%
	$100,000 – $149,000	9	6.92%
	$150,000 or more	5	3.85%

Dependent Variables

The dependent variables are the assessments of each participant's presumed likelihood of guilt for each of the four suspects (Black man, Black woman, White man, White woman) and their choice of one most likely suspect. First, we ask participants,

[4] The total N (%) does not add up to 130 (100%) because some participants selected multiple racial identities.

"What is the likelihood that [name, title] stole the money?" on a seven-point Likert scale (1 = extremely unlikely to 7 = extremely likely). Then, we ask, "If you had to choose just one person, who do you think stole the money?".

We pose each question twice; before providing information about each suspect's pressures and opportunities to steal and again after providing that information. For the single-suspect question, we randomize the order of the suspect names to minimize order effects related to the suspect selection.

Independent Variables

Measures of implicit racial, implicit gender, explicit racial, and explicit gender biases are our independent variables. We measure implicit racial bias using Levinson, Cai, and Young's (2010) Black/White, Guilty/Not Guilty IAT and adapted this scale for a Male/Female, Guilty/Not Guilty IAT to measure implicit gender bias. We use the Bayesian Racism Scale (Uhlmann et al., 2010) and the Old-Fashioned Sexism Scale (Swim et al., 1995) to measure explicit racism and explicit sexism, respectively.

Control variables include participant age, gender, education, income, location, and political ideology, as research shows that these variables can relate to biases (O'Brien, Forrest, Lynott, and Daly, 2013; Norton and Sommers, 2011; Sears, Van Laar, Carrillo, and Kosterman, 2004). We also include an index created from questions on religiosity and attendance at religious services,[5] confidence in religious institutions,[6] and religious identity, as our setting is a church workplace.

Implicit Association Tests

Implicit bias is not directly observable, so in laboratory studies and online testing hubs, researchers utilize experimental tasks, such as the IAT, to predict behaviors assumed to be driven by an implicit bias.[7] An IAT requires respondents to classify a target stimulus (terms or images) into one of two categories. In a Black/White IAT, respondents press a key to classify a target stimulus in the disjunctive category "White or negative" or in the "Black or positive" category. These pairings switch to representing the "White or positive" category or the "Black or negative" category. Instructions ask respondents to categorize as quickly as possible and make as few errors as possible, creating a trade-off between speed and accuracy.

A comparison is made of the speed of categorization and the number of errors for the first set of disjunctive categories (White/negative; Black/positive) to the second set of disjunctive categories (White/positive; Black/negative). An individual with a slow response and a high error rate when categorizing White with negative and Black with positive rather than when categorizing White with positive and Black with negative is classified as having a stronger unconscious association between Black people and negative evaluations – other things being equal. Table 2 Panel A (Panel B) presents the seven phases of the race (gender) IAT. Appendix A includes a summary of all items used in the IATs.

Table 2: Implicit Association Test (IAT) Procedure

Panel A *Black/White Guilty/Not Guilty IAT Blocks*		**Panel B** *Male/Female Guilty/Not Guilty IAT Blocks*	
Block 1	Practice block of only target pairs (i.e., pictures to be sorted as either Black or White)	Block 1	Practice block of only target pairs (i.e., pictures to be sorted as either Female or Male)
Block 2	Practice block of only attribute pairs (i.e., Guilty/Not Guilty words)	Block 2	Practice block of only attribute pairs (i.e., Guilty/Not Guilty words)
Block 3	Practice block of combined target and attribute pairs that are randomly selected as	Block 3	Practice block of combined target and attribute pairs that are randomly selected

[5] Taken from the World Values Survey (Inglehart et al., 2018)
[6] Taken from the National Opinion Research Center's General Social Survey
[7] , e.g., Project Implicit https://implicit.harvard.edu/implicit/

	either compatible (Black/Guilty or White/Not Guilty) or incompatible (Black/Not Guilty or White/Guilty)		as either compatible (Male/Guilty or Female/Not Guilty) or incompatible (Male/Not Guilty or Female/Guilty)
Block 4	Critical block of combined target and attribute pairs that are the same (compatible or incompatible) as Block 3	Block 4	Critical block of combined target and attribute pairs that are the same (compatible or incompatible) as Block 3
Block 5	Practice block of only attribute pairs with the sides reversed (i.e., Guilty and Not Guilty switch sides)	Block 5	Practice block of only attribute pairs with the sides reversed (i.e., Guilty and Not Guilty switch sides)
Block 6	Practice block of combined target and attribute pairs with the sides reversed (i.e., if Block 3 was the compatible pairs, Block 6 is the incompatible pairs)	Block 6	Practice block of combined target and attribute pairs with the sides reversed (i.e., if Block 3 was the compatible pairs, Block 6 is the incompatible pairs)
Block 7	Critical block of combined target and attribute pairs that are the same (compatible or incompatible) as Block 6	Block 7	Critical block of combined target and attribute pairs that are the same (compatible or incompatible) as Block 6

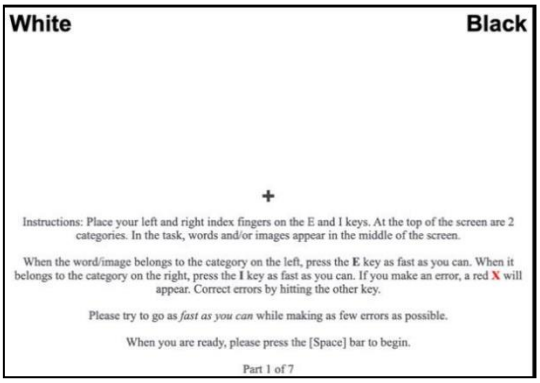
We use the Levinson, Cai, and Young (2010) Black/White, Guilty/Not Guilty IAT and compare how quickly individuals match White faces with not guilty or Black faces with guilty. This process allows us to assess implicit guilty beliefs about Black and White people (see the Scoring the Implicit Association Test section). For example, if individuals implicitly associate White with not guilty, they would associate White faces with not guilty words faster than Black faces. We utilize pictures of Black and White faces used in numerous race-based IATs (e.g., Greenwald, McGhee, and Schwartz, 1998) and the stimuli from the Levinson (2010) Black/White IAT to represent the guilty/not guilty category.

Our Male/Female, Guilty/Not Guilty IAT modifies the Levinson, Cai, and Young (2010) Black/White, Guilty/Not Guilty IAT. We use names to represent gender and the stimuli from the Levinson IAT to represent guilty/not guilty.[8] Figure 1 includes an example of what participants see in the IAT. Panel A shows the initial instructions screen. Panel B has an example of the picture sorting task, while Panel C has an example of the word sorting task.

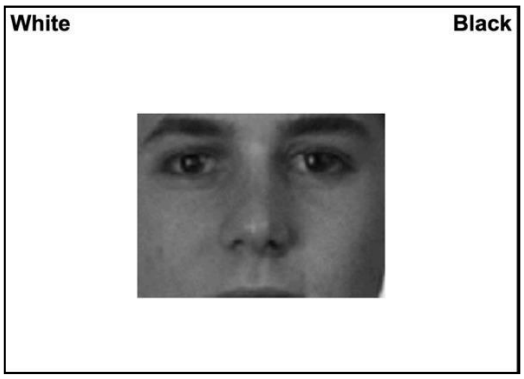
[8] See Appendix A for specific information about the stimuli used in the IATs.

Figure 1: Sample Screenshots from the Implicit Association Test

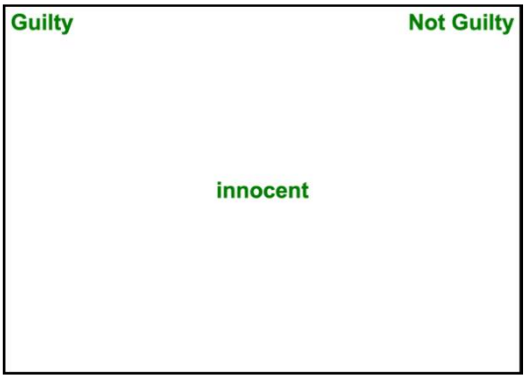
Panel A: Sample Screenshot of IAT Instructions



Panel B: Sample Screenshot of Picture Sorting Task



Panel C: Sample Screenshot of Word Sorting Task



The IAT measures the response time for the participant to sort the stimuli into the target and attribute pairs. Existing literature on IATs suggests that respondents will sort compatible items more quickly than incompatible items (Carpenter et al., 2019). Our study requires participants to sort the stimuli correctly before moving to the next screen. We compute a D-score for each participant, which measures the difference between response times in sorting compatible and incompatible items. Extant literature suggests that, on average, D-scores can be categorized as "slight," "moderate," and "strong" at the values of 0.15, 0.35, and 0.65, respectively (Greenwald, Nosek, and Banaji, 2003).

Bayesian Racism Scale

The Bayesian Racism Scale (Uhlmann et al., 2010) measures the belief that discriminating against individuals based on racial stereotypes is rational. The scale consists of six statements, such as, "If your personal safety is at stake, it's sensible to avoid members of ethnic groups known to behave more aggressively." Participants indicated their agreement using a seven-point Likert scale, where 1= strongly disagree and 7 = strongly agree (we reverse-score two items).[9] We aggregate the responses into the Bayesian Racism Score. Higher scores indicate a stronger adherence to intergroup prejudice.

Old-Fashioned Sexism Scale

The Old-Fashioned Sexism Scale (Swim et al., 1995) measures overt sexist attitudes toward women and generally contains five statements rated on a five-point Likert scale (1= strongly agree and 5 = strongly disagree). To make this scale consistent with the Bayesian Racism scale, we use a seven-point Likert scale (where 1 = strongly disagree and 7 = strongly agree). We also add a statement, "Men make better business or political leaders than women do," taken from the World Values Survey (WVS) Sixth Wave (Inglehart et al., 2018), into the Old-Fashioned Sexism Score. Higher scale scores represent greater levels of sexism.

Intersectional Criminology Interaction

We create an interaction term from the explicit racial bias score and the explicit gender bias score to capture intersectional criminology. This theoretical approach studies how a person's intersecting identities and statuses affect their experiences with crime-related issues. Recently, criminologists have argued for the importance of considering the interaction of marginalizing characteristics and not merely as control or demographic variables (Boppre, 2018).

IV. Results

Response Validity and Knowledge Check

Six participants spent less than 21 minutes on the survey, which we determined in pilot testing to be too fast to provide valid responses. For example, as expected, none of the excessively speedy respondents produce valid IAT scores.[10] Consistent with pilot testing expectations, the mean time to complete the protocol among those who finished in a single sitting is 45 minutes.

We include a knowledge check to assess participants' attention after the video of the consultant's visit to the church (Who is the consultant?). Twenty-one participants who missed the first knowledge check remain in the sample. We exclude 13 participants because their IAT responses are un-scorable due to incompletion or excessive speed. Several fail multiple requirements, so the final sample includes 130 valid-responding participants. Missing responses to at least one question in the regressions produces 115 observations for most analyses.

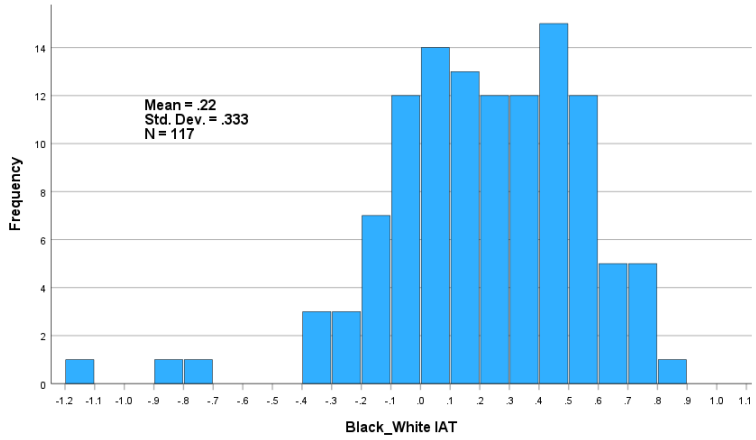
Descriptive Statistics

Implicit Bias

In our sample, the mean (standard deviation) D-score for the Black/White, Guilty/Not Guilty IAT, our measure of implicit racial bias, is 0.216 (0.333), indicating that, on average, participants display a slight implicit bias to associate Black people with guilt. The mean (SD) D-score for the IAT for participants who identify as White is 0.226 (0.322), and the mean (SD) D-score for participants who identify as non-White is 0.178 (0.377). We show the distribution for the Black/White, Guilty/Not Guilty IAT in Figure 2A.

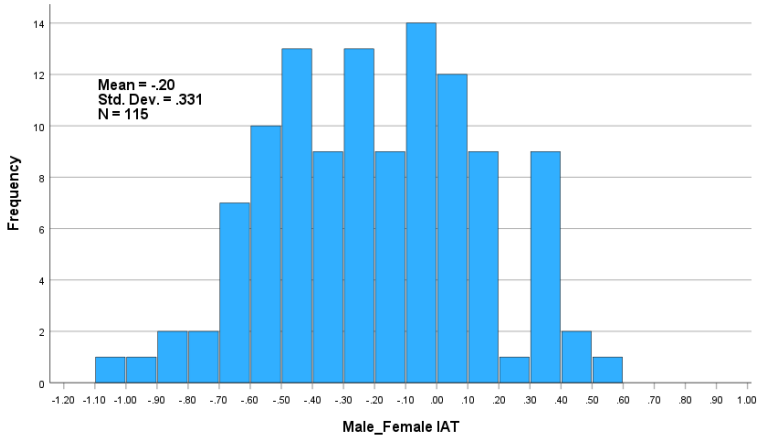
[9] See Appendix B for the questions used in the Bayesian Racism and Old-Fashioned Sexism scales.
[10] These participants would have been withheld from analyses for that reason alone.

Figure 2A: Distribution of D-Scores for Black/White Guilty/Not Guilty IAT



For the Male/Female, Guilty/Not Guilty IAT, where a positive D-score indicates an implicit association of females with guilt and a negative D-score implicitly associates males with guilt, the mean (SD) The D-score is -0.204 (0.3331). This statistic suggests that participants in our sample display a slight implicit bias towards men for guilt. The mean (SD) D-score for the IAT for participants who identify as female is -0.253 (0.337), and the mean (SD) for participants who identify as male is -0.167 (0.324). Figure 2B shows the distribution of Male/Female, Guilty/Not Guilty IAT.

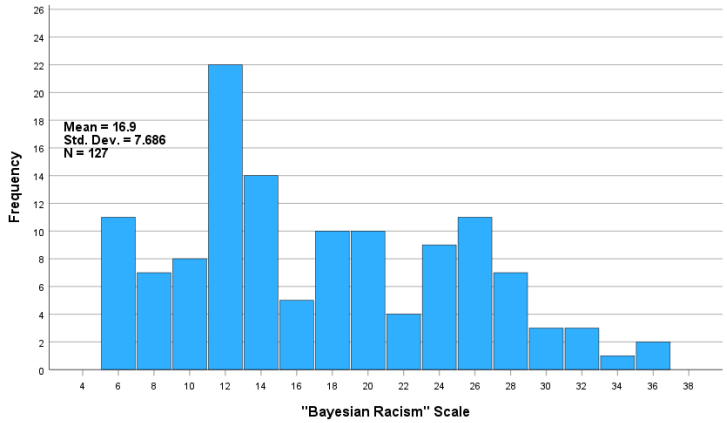
Figure 2b: Distribution of D-Scores for Female/Male Guilty/Not Guilty Iat



Explicit Bias

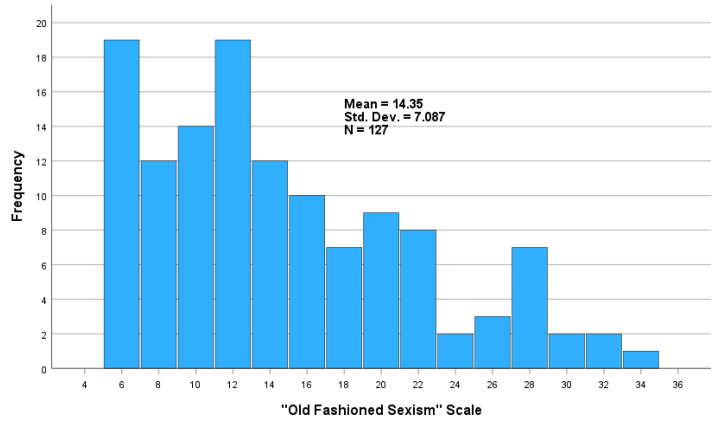
The mean participant response for each question on the Bayesian Racism Scale ranges from 2.29 to 3.24. Overall, the mean (SD) Bayesian Racism Score is 16.89 (7.69). The scale has a minimum value of six and a maximum of 36. The overall Bayesian Racism Score distribution is in Figure 3A.

Figure 3a: Distribution of Overall Bayesian Racism Scores



On the Old-Fashioned Sexism Scale, the mean response for each question in our sample ranges from 2.01 to 2.68. The overall mean (SD) for the Old-Fashioned Sexism Score is 14.35 (7.09), with a minimum value of 6 and a maximum value of 33. We present the distribution of the overall Old-Fashioned Sexism Score in Figure 3B.

Figure 3B: Distribution of Overall Old-Fashioned Sexism Scores



Descriptive Statistics: Suspicion of Guilt

In the initial round of questioning, the mean (SD) for the likelihood of guilt rating is 4.58 (1.56) for Ruben (Black male); 3.75 (1.78) for Robin (Black female); 4.27 (1.73) for Tammy (White female); and 4.77 (1.89) for Doug (White male). Once we provide additional information on the suspects, the mean (SD) likelihood of guilt is 4.47 (1.67) for Ruben, 3.86 (1.74) for Robin, 4.33 (1.68) for Tammy, and 5.29 (1.68) for Doug.

When participants are asked to choose the one suspect that they believe is the most likely guilty at each stage, 20 participants (15.7%) initially select Ruben, 14 participants (11.0%) select Robin, 31 participants (24.4%) select Tammy, and 62 participants (48.9%) select Doug. In the second stage, 17 (13.4%) chose Ruben as the most likely culprit, while 12 (9.4%) select Robin, 23 (18.1%) indicates Tammy, and 75 (59.1%) pick Doug. After receiving additional information, all participants who changed their choice of most likely culprit select Doug.

Descriptive Statistics: Other Questions

Participants' mean (SD) responses to the questions about their racial identity are 2.58 (1.13) for the sense of self and 2.52 (1.10) for reflection of identity, while the mean (SD) responses for their gender identity are 2.89 (1.00) for the sense of self and 2.86 (1.03) for reflection of identity, and the mean (SD) religious responses are 2.21 (1.19) for the sense of self and 2.27 (1.23) for reflection of identity. On a four-point Likert scale, each garners more than "slightly important" in the view of the participants. When queried about their confidence in organized religion, the mean (SD) response is 2.60 (1.00) on a four-point Likert scale. Participants report very little religious service attendance – mean (SD) of 2.91 (2.09) – and indicate

they are not very religious – mean (SD) of 2.07 (0.87). We show descriptive statistics for our variables of interest in Table 3.

Table 3: Descriptive Statistics of Dependent and Independent Variables

Variable Name[11]	N	Mean	SD	Min	Max
ROBINGUILT1	128	3.750	1.779	1	7
TAMMYGUILT1	128	4.273	1.733	1	7
RUBENGUILT1	128	4.578	1.565	1	7
DOUGGUILT1	128	4.773	1.896	1	7
ROBINGUILT2	127	3.858	1.740	1	7
TAMMYGUILT2	127	4.331	1.681	1	7
RUBENGUILT2	127	4.472	1.671	1	7
DOUGGUILT2	127	5.299	1.678	1	7
CHOICE1ROBIN	127	0.110	0.314	0	1
CHOICE1TAMMY	127	0.244	0.431	0	1
CHOICE1RUBEN	127	0.157	0.366	0	1
CHOICE1DOUG	127	0.488	0.502	0	1
CHOICE2ROBIN	127	0.094	0.294	0	1
CHOICE2TAMMY	127	0.181	0.387	0	1
CHOICE2RUBEN	127	0.134	0.342	0	1
CHOICE2DOUG	127	0.591	0.494	0	1
IATBW	117	0.216	0.333	-1.157	0.872
IATFM	115	-0.204	0.331	-1.023	0.544
BRS	127	16.898	7.686	6	36
OFSS	127	14.354	7.087	6	33
ZBRS	127	0	1	-1.418	2.485
ZOFSS	127	0	1	-1.179	2.631
ZEXPLICIT	127	0	1	-1.040	3.659
RELATTEND	127	2.906	2.095	1	7
RELIGIOSITY	127	2.071	0.865	1	3
RELTRUST	127	2.598	1.002	1	4
IDREL	127	2.213	1.193	1	4
REFREL	127	2.268	1.231	1	4
RELINDEX	127	-0.081	0.883	-1.280	1.422
MATCHGENDER	127	0.520	0.502	0	1

Ordered Logistic Regressions: Initial Suspicion of Guilt

Our research question is whether and to what extent bias (implicit or explicit) is associated with the perception of guilt by peers (likelihood of guilt rating for each suspect and choice of a single suspect). We examine this question using ordered logistic regressions with ratings of the likelihood of guilt measured with a seven-point Likert scale as the dependent variable. In untabulated results, we perform linear regressions using the total guilt ratings of the two Black suspects, two White

[11] Appendix C includes variable definitions.

suspects, two male suspects, and two female suspects, each as the dependent variable.[12] The independent variables are the four measures of bias (explicit racism, explicit sexism, implicit racism, implicit sexism) and gendered racism, an interaction of the two explicit bias measures.

Table 4 shows the regression results using the total value of ratings of the initial likelihood of guilt for each suspect as the dependent variable. Panel A shows the results for Robin (Black female suspect). The overall model is significant (p=0.014). Consistent with prior literature, the coefficient for age (education) is positive (negative) and significant (p=0.071; p=0.009). We do not find significance for the other demographic covariates in the model. The coefficient on the Old-Fashioned Sexism scale (explicit sexism) is positive and significant (p=0.059), so as the score increases, the likelihood of choosing Robin increases.

Panel B shows Tammy's likelihood of guilt ratings (White female suspect). Neither the overall model nor any of the coefficients are significant. The results for the likelihood of Ruben's guilt (Black male suspect), shown in Panel C, are insignificant overall. However, the coefficient on female identification (currently describing oneself as a woman) is positive and significant (p=0.070), meaning that identifying as a woman increases the likelihood of choosing Ruben. Panel D shows the results for Doug's likelihood of guilt ratings (White male suspect). As with the White female suspect, neither the overall model nor any coefficients are significant.

Table 4: Association of Implicit and Explicit Bias on Likelihood of Guilt – Initial Assessment

	Panel A	**Panel B**	**Panel C**	**Panel D**
	Robin (Black Female)	***Tammy (White Female)***	***Ruben (Black Male)***	***Doug (White Male)***
AGE[13]	0.028*	0.013	-0.009	-0.016
	(0.016)	(0.016)	(0.016)	(0.016)
GENDER	-0.094	0.215	0.697*	0.625*
	(0.367)	(0.352)	(0.385)	(0.372)
URBAN	0.093	-0.111	-0.036	-0.051
	(0.095)	(0.092)	(0.091)	(0.094)
INCOME	0.092	0.013	-0.138	0.042
	(0.105)	(0.107)	(0.108)	(0.106)
EDUCATION	-0.525***	0.242	-0.107	0.095
	(0.202)	(0.210)	(0.199)	(0.204)
POLIDEOL	-0.165	-0.086	-0.113	0.070
	(0.176)	(0.176)	(0.179)	(0.175)
RELINDEX	0.316	0.150	0.143	-0.288
	(0.215)	(0.208)	(0.212)	(0.217)
IATBW	0.527	0.104	0.400	-0.492
	(0.543)	(0.513)	(0.525)	(0.529)
IATMF	0.144	0.124	0.741	-0.044
	(0.550)	(0.540)	(0.541)	(0.532)
ZBRS	0.130	-0.151	0.690	0.174
	(0.467)	(0.455)	(0.457)	(0.462)
ZOFSS	1.054*	-0.554	0.740	-0.792

[12] Models using total White Likelihood of Guilt, Male Likelihood of Guilt, and Female Likelihood of Guilt as dependent variables are insignificant, with no significant findings. Models using the White Female and White Male suspects' guilt are also insignificant, with no significant findings.

[13] Appendix C includes variable definitions.

	(0.558)	(0.541)	(0.564)	(0.620)
ZEXPLICIT	-0.481	0.654	-1.298	0.492
	(0.816)	(0.811)	(0.809)	(0.866)
Number of obs.	115	115	115	115
R-squared	0.059	0.016	0.031	0.027

**** p<0.01, ** p<0.05, * p<0.10*

Next, we run the same model at the second assessment stage (i.e., after participants read additional information about each suspect's motivations and pressures to commit the theft). We include the results in Table 5. Panel A presents the results for Robin. The overall model is significant (p=0.009). Consistent with the first model and the prior literature, the coefficient for age (education) is positive (negative) and significant (p=0.044; p=0.005). In this iteration, the Male/Female, Guilty/Not Guilty IAT coefficient is positive and significant (p=0.088), suggesting that an implicit association of females with guilt increases the likelihood of choosing Robin. Panel B shows the results for Tammy. Neither the overall model nor any of the coefficients are significant. The results for Ruben are in Panel C. While the overall model is not significant, the coefficient for identifying as female is again positive and significant (0.072). Panel D shows the results for Doug. The overall model is insignificant. Unique to Doug, the coefficient on the religiosity index is also negative and marginally significant (p=0.089); less religious participants are more likely to choose Doug as the suspect.

Table 5: Association of Implicit and Explicit Bias on Likelihood of Guilt – Subsequent Assessment

	Panel A	**Panel B**	**Panel C**	**Panel D**
	Robin (Black Female)	***Tammy (White Female)***	***Ruben (Black Male)***	***Doug (White Male)***
AGE[14]	0.033**	0.025	0.010	-0.003
	(0.016)	(0.016)	(0.017)	(0.016)
GENDER	-0.029	0.447	0.671*	0.505
	(0.366)	(0.365)	(0.373)	(0.367)
URBAN	0.029	-0.077	-0.109	0.002
	(0.095)	(0.095)	(0.089)	(0.095)
INCOME	0.109	-0.017	-0.192*	0.117
	(0.112)	(0.110)	(0.111)	(0.112)
EDUCATION	-0.584***	-0.023	-0.336	0.093
	(0.208)	(0.202)	(0.211)	(0.208)
POLIDEOL	-0.065	-0.118	0.234	0.247
	(0.181)	(0.175)	(0.176)	(0.178)
RELINDEX	0.090	0.091	-0.271	-0.361*
	(0.213)	(0.212)	(0.218)	(0.212)
IATBW	-0.122	-0.529	-0.536	-0.781
	(0.550)	(0.540)	(0.541)	(0.553)
IATMF	0.958*	-0.489	0.897	-0.148
	(0.562)	(0.556)	(0.538)	(0.550)
ZBRS	0.222	-0.269	0.389	0.125
	(0.456)	(0.443)	(0.450)	(0.489)
ZOFSS	0.804	-0.211	-0.133	-1.139*
	(0.535)	(0.524)	(0.562)	(0.632)
ZEXPLICIT	-0.311	0.574	-0.156	0.700

[14] Appendix C includes variable definitions.

	(0.795)	(0.770)	(0.807)	(0.898)
Number of obs.	115	115	115	115
R-squared	0.065	0.025	0.032	0.050

**** p<0.01, ** p<0.05, * p<0.10*

Logistic Regressions: Initial Selection of Most Likely Culprit

To further test our RQ, we perform logistic regressions using a binary variable indicating whether the participant initially selects the suspect as the most likely culprit during each round of questions about suspect guilt as the dependent variable. Table 6 shows the results of the regressions for the initial assessment of the most likely suspect. None of the models are significant overall. However, the coefficient for political ideology (where higher values correspond to more conservative political values) is negative and significant for Tammy (p=0.044) and positive and significant for Ruben (p=0.072). The coefficient on age is negative and significant for Doug (p=0.019). None of the other covariates or measures of bias are significant for any of the suspects.

Table 6: Association of Implicit and Explicit Bias on Choice of Suspect – Initial Assessment

	Panel A	**Panel B**	**Panel C**	**Panel D**
	Robin (Black Female)	***Tammy (White Female)***	***Ruben (Black Male)***	***Doug (White Male)***
AGE[15]	0.038	0.029	0.010	-0.049**
	(0.030)	(0.021)	(0.027)	(0.021)
GENDER	-0.035	-0.564	-0.010	0.584
	(0.757)	(0.509)	(0.647)	(0.461)
URBAN	0.096	0.055	-0.240	0.013
	(0.194)	(0.124)	(0.164)	(0.110)
INCOME	0.195	0.072	-0.243	-0.018
	(0.238)	(0.146)	(0.176)	(0.128)
EDUCATION	-0.398	-0.171	-0.124	0.342
	(0.417)	(0.275)	(0.327)	(0.249)
POLIDEOL	-0.138	-0.522**	0.59*	0.125
	(0.324)	(0.259)	(0.328)	(0.210)
RELINDEX	0.495	0.298	-0.100	-0.351
	(0.434)	(0.286)	(0.346)	(0.251)
IATBW	0.072	0.241	0.281	-0.264
	(1.105)	(0.694)	(0.996)	(0.645)
IATMF	0.051	-0.297	0.988	-0.343
	(1.157)	(0.733)	(0.916)	(0.651)
ZBRS	1.417	-0.066	0.091	-0.291
	(1.128)	(0.723)	(0.780)	(0.570)
ZOFSS	1.662	0.798	0.015	-1.012
	(1.296)	(0.852)	(0.847)	(0.699)
ZEXPLICIT	-2.207	-0.873	-0.510	1.299
	(1.969)	(1.388)	(1.297)	(1.051)
MATCHGENDER	-0.461	-0.815*	0.816	0.420

[15] Appendix C includes variable definitions.

	(0.745)	(0.482)	(0.645)	(0.433)
Constant	-3.434	-0.424	-1.785	0.044
	(2.303)	(1.610)	(2.008)	(1.426)
Number of obs.	115	115	115	115
Pseudo r-squared	0.122	0.082	0.107	0.085

**** p<0.01, ** p<0.05, * p<0.10*

Logistic Regressions: Subsequent Selection of Most Likely Culprit

Table 7 shows the results of the regressions for the second assessment of the most likely suspect. Panel A shows the results for Robin. The coefficient on the explicit sexism scale is positive and significant (p=0.042), as is the coefficient on the explicit racism scale (p=0.040). The coefficient on the interaction term is negative and significant (p=0.048). The coefficient on the gender alignment variable is also negative and significant (p=0.045).Figure 4 shows the log odds of the gendered racism variable. As seen in Figure 4, higher values on either sexism or racism predict choosing Robin. Lower values on both sexism and racism make choosing Robin extremely unlikely, approaching zero chance. However, being above average on both sexism and racism produces lower and negative log odds of choosing Robin (indicating a moderate likelihood to choose away from Robin).

Figure 4: Log-Odds of Interaction Term Between Explicit Sexism and Racism

Panel B shows the results for Tammy. The coefficients on household income and political ideology are negative and significant (p=0.056; p=0.005), indicating that participants with lower income and more liberal political ideologies are indicators of selecting Tammy as the likely culprit.

Like Tammy, Ruben's results in Panel C include a negative and significant coefficient (p=0.027) on household income. However, for Ruben, the coefficient on education is negative and significant (p=0.041), suggesting that those with less education are more likely to choose Ruben as the suspect. Panel D shows the results for Doug. Unlike Ruben and Tammy, the coefficient on household income for Doug is positive and significant (p=0.006). Unlike Ruben, the coefficient on education is positive and significant (p=0.016), different than Tammy, the coefficient on political ideology is positive and significant (p=0.054), and in contrast to Robin, the coefficient on the gender alignment variable is positive and significant (p=0.027). Again, the coefficient on the religiosity index is negative and significant (p=0.050) for Doug.

Table 7: Association of Implicit and Explicit Bias on Choice of Suspect – Subsequent Assessment

	Panel A	**Panel B**	**Panel C**	**Panel D**
	Robin (Black Female)	***Tammy (White Female)***	***Ruben (Black Male)***	***Doug (White Male)***
AGE[16]	0.015	0.039	0.015	-0.037*
	(0.036)	(0.025)	(0.031)	(0.022)

[16] Appendix C includes variable definitions.

GENDER	-0.18	-0.442	-0.018	0.594
	(0.822)	(0.583)	(0.725)	(0.491)
URBAN	-0.081	0.035	-0.001	-0.011
	(0.243)	(0.153)	(0.193)	(0.124)
INCOME	0.112	-0.345*	-0.505**	0.419***
	(0.282)	(0.180)	(0.229)	(0.152)
EDUCATION	-0.465	-0.17	-0.867**	0.677**
	(0.517)	(0.334)	(0.425)	(0.282)
POLIDEOL	-0.074	-0.934***	0.163	0.453*
	(0.371)	(0.333)	(0.355)	(0.235)
RELINDEX	0.556	0.246	0.428	-0.545*
	(0.473)	(0.327)	(0.403)	(0.278)
IATBW	0.052	-0.272	-0.56	0.349
	(1.290)	(0.758)	(1.060)	(0.709)
IATMF	-0.66	0.31	1.299	-0.586
	(1.357)	(0.852)	(1.104)	(0.707)
ZBRS	3.192**	-0.532	-0.283	-0.422
	(1.566)	(0.884)	(0.993)	(0.680)
ZOFSS	3.559**	0.696	-0.125	-1.151
	(1.735)	(1.003)	(1.142)	(0.787)
ZEXPLICIT	-5.229**	0.091	0.106	1.218
	(2.647)	(1.607)	(1.814)	(1.242)
MATCHGENDER	-2.015**	-0.441	-0.298	1.061**
	(1.005)	(0.561)	(0.721)	(0.480)
Constant	-1.418	1.486	2.401	-4.383***
	(2.691)	(1.997)	(2.355)	(1.646)
Number of obs.	115	115	115	115
Pseudo r-squared	0.243	0.160	0.155	0.180

**** p<0.01, ** p<0.05, * p<0.10*

After we present evidence implicating a culprit other than the Black female (drawing roughly two-thirds of participants to choose the White male target), when both sexism and racism are low, there is a very low chance of selecting the Black female (Robin). However, when a participant has either above-average sexism or above-average racism, Robin is significantly more likely to be considered the best perpetrator candidate. Notably, neither sexism for the White female nor racism for the Black male are predictive of choosing either. However, Robin's intersectional nature appears to have drawn both biases out together and interactively.

There is an important nuance to these findings. Overall, Robin is not more likely to be selected because, given the scenario details, a large majority suspect the White male. We also note that Robin was the least frequently chosen candidate for guilt overall and has the lowest guilt likelihood ratings in both stages of describing the suspects. However, among participants who choose Robin, the interaction of sexism and racism is associated with that choice.

After most participants gravitate toward the White male, the participants who choose the White female (Tammy) as the likely culprit are significantly more likely to be politically liberal and significantly more likely to be poor. Similarly, at this point, those remaining participants who choose the Black male as the culprit (Ruben) are significantly more likely to be poor and are significantly more likely to be lower in education level. Covariates of income, education, political ideology, and religiosity are associated with choosing the White male, such that higher income, more educated, more conservative, and less religious participants are more likely to choose him.

V. Conclusion

This study examines the association between implicit and explicit racial and gender biases and employee perceptions of coworker guilt in a workplace theft scenario. Using several bias measures and various covariates, we provide evidence that bias may influence individuals' assessments of probable guilt. During the initial guilt likelihood rating, when participants know little about each suspect, higher age, lower education, and higher explicit sexism determine higher ratings of guilt likelihood for the Black female (Robin). We do not find that implicit sexism or racism are drivers of perceptions of guilt. However, there is a trend toward implicit sexism as a determinant of Robin's second round of likelihood of guilt ratings. These results suggest that explicit biases are more influential on guilt evaluation than implicit biases.

The interpretation of the significant interaction term for the choice of Robin aligns with a negative compensatory understanding of sexism and racism, consistent with the double jeopardy view of gendered racism. If sexism is low, the presence of above-average racism will compensate adversely for below-average sexism. If racism is below average and sexism is above average, sexism will compensate adversely for the low racism. In other words, not being racist does not protect against the adverse effects of sexism, and vice versa.

This study contributes to the bias literature by demonstrating a connection between bias and the perception of guilt in a workplace setting. Our findings suggest that explicit biases may interact in a way that affects intersectional groups more negatively—in this case, a Black female—even when another individual is a substantially more likely choice. In establishing these links, we further the understanding of how biases may impact a workplace setting. For some coworkers, bias may overcome evidence.

Our results also have implications for administrators and investigators, especially those examining allegations of workplace wrongdoing (such as fraud examiners). The more they know about how biases may influence perceptions of guilt, even when there is contradicting evidence, the more measures they can take to ensure impartial decision-making and investigations. We find that bias seems to influence the perception of guilt for some people despite subsequent information, facts, and evidence that supersede biases for the large majority of others. Roughly ten percent of the participants appear resistant to new information. In the workplace, this resistance has the potential to have a meaningful impact on decision-making.

Additionally, our findings have broader societal implications. Achieving more justice and equity in the workplace is one step towards achieving more justice and equity for marginalized groups – and thus for society overall. Organizations can provide more impartial environments by educating their employees on how their personal biases may impact their judgment and decision-making and how biases may lead them to suspect a coworker of wrongdoing and potentially act against that person without thoroughly considering the evidence. Education is critical in moving the organization towards the more fair and equitable treatment of all employees.

While this study focuses on the effect of racial and gender biases on suspicions of coworker guilt, we identify other factors driving biases, such as age, gender, education, and income. Further work could explore how bias affects the work of accounting personnel who receive reports of alleged wrongdoing and fraud investigators who examine the reports.

Limitations of this study include some unexpected findings of the lack of suspicion of the Black male, which is not anticipated by prior theory and may be due to the nature of our methodology. By using the rich stimulus of a produced video, contextual elements, such as differences in the likeability of the characters or identification with one or more characters, may influence the results. On the other hand, the methodology better simulates real-world workplace events (i.e., generalizability), demonstrating the well-known trade-off between internal and external validity.

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Appendix A: Implicit Association Test (IAT) Stimuli

Black/White Guilty/Not Guilty IAT

Target Pair

Black: 

White: 

Attribute Pair

Guilty:	Convict, Perpetrator, Criminal, Guilty, Liable, At fault, Culpable, Wrong, Corrupt
Not Guilty:	Acquitted, Blameless, Innocent, Not guilty, In the clear, Exonerated, Faultless, Lawful, Vindicated

Male/Female Guilty/Not Guilty IAT

Target Pair

Female:	Rebecca, Michelle, Emily, Julia, Anna
Male:	Ben, Paul, Daniel, John, Jeffrey

Attribute Pair

Guilty:	Convict, Perpetrator, Criminal, Guilty, Liable, At fault, Culpable, Wrong, Corrupt
Not Guilty:	Acquitted, Blameless, Innocent, Not guilty, In the clear, Exonerated, Faultless, Lawful, Vindicated

Appendix B: Measures Of Explicit Bias

Explicit Racial Bias: Bayesian Racism Scale (Uhlmann et al., 2010)

Participants are asked to assess the extent to which they agree or disagree with the following statements, where 1 = Strongly Disagree, and 7 = Strongly Agree

1. If you want to make accurate predictions, you should use information about a person's ethnic group when deciding if they will perform well.
2. If your personal safety is at stake, it's sensible to avoid members of ethnic groups known to behave more aggressively.
3. When the only thing you know about someone is their race, it makes sense to use your knowledge of their racial group to form an impression of them.
4. Law enforcement should act as if members of all racial groups are equally likely to commit crimes (reverse scored).
5. Law enforcement should pay particular attention to groups more heavily involved in crime, even if this means focusing on members of particular ethnic groups.
6. It is always wrong to avoid someone because members of their racial group are more likely to commit violent crimes (reverse scored).

Explicit Gender Bias: Old-Fashioned Sexism Scale (Swim et al., 1995)

Participants are asked to assess the extent to which they agree or disagree with the following statements, where 1 = Strongly Disagree, and 7 = Strongly Agree

1. Women are generally not as smart as men.
2. I would be equally comfortable having a woman as a boss as a man. (reverse scored).
3. It is more important to encourage boys than to encourage girls to participate in athletics.
4. Women are just as capable of thinking logically as men. (reverse scored)
5. When both parents are employed, and their child gets sick at school, the school should call the mother rather than the father.
6. Men make better business or political leaders than women do.

Appendix C: Variable Definitions

Variable Name	Variable Description
AGE	Age of the participant in years.
BRS	Aggregate score of responses to all six questions in the Bayesian Racism Scale (Uhlmann et al., 2010)
CHOICE1DOUG	Binary variable taking a value of 1 if the participant selected Doug (White male suspect) as the most likely culprit initially, and 0 otherwise
CHOICE1ROBIN	Binary variable taking a value of 1 if the participant selected Robin (Black female suspect) as the most likely culprit initially, and 0 otherwise
CHOICE1RUBEN	Binary variable taking a value of 1 if the participant selected Ruben (Black male suspect) as the most likely culprit initially, and 0 otherwise
CHOICE1TAMMY	Binary variable taking a value of 1 if the participant selected Tammy (White female suspect) as the most likely culprit initially, and 0 otherwise
CHOICE2DOUG	Binary variable taking a value of 1 if the participant selected Doug (White male suspect) as the most likely culprit subsequent to further information, and 0 otherwise
CHOICE2ROBIN	Binary variable taking a value of 1 if the participant selected Robin (Black female suspect) as the most likely culprit subsequent to further information, and 0 otherwise
CHOICE2RUBEN	Binary variable taking a value of 1 if the participant selected Ruben (Black male suspect) as the most likely culprit subsequent to further information, and 0 otherwise
CHOICE2TAMMY	Binary variable taking a value of 1 if the participant selected Tammy (White female suspect) as the most likely culprit subsequent to further information, and 0 otherwise
DOUGGUILT1	Responses to seven-point Likert scale of initial suspicion of guilt for Doug (White male suspect), anchored at 1: Extremely Unlikely and 7: Extremely Likely
DOUGGUILT2	Responses to seven-point Likert scale of subsequent suspicion of guilt for Doug (White male suspect), anchored at 1: Extremely Unlikely and 7: Extremely Likely
EDUCATION	Responses to the question "What is your highest education level?" using a 4-point ordinal scale from 1: High school to 4: Postgraduate Degree
GENDER	Responses to demographic question "How do you currently describe yourself?" where 1=female and 0=male
IATBW	D-score for Black/White Guilty/Not Guilty Implicit Association Test (IAT)
IATFM	D-score for Female/Male Guilty/Not Guilty Implicit Association Test (IAT)
IDREL	Responses to the question "When you think about yourself, how important is your religious identity to your sense of who you are?" using a 4-point Likert scale anchored at 1: Not at all important to 4: Very important
INCOME	Responses to the question "What was your total household income before taxes in the last 12 months?" using a seven-point ordinal scale from 1: Less than $25,000 to 7: $150,000 or more
MATCHGENDER	Binary variable taking a value of 1 if the participant's gender identity matches their choice of likely guilty suspect, and 0 otherwise.
OFSS	Aggregate score of responses to all six questions in the Old-Fashioned Sexism Scale (Swim et al., 1995)
POLIDEOL	Responses to the question "How would you describe your political ideology?" using a 5-point ordinal scale from 1: Very Liberal to 5: Very Conservative.
REFREL	Responses to the question "My religious identity is an important reflection of who I am" using a 4-point Likert scale anchored at 1: Not at all important to 4: Very important
RELATTEND	Responses to the question "Apart from weddings and funerals, how often would you say you attend religious services?" using a seven-point scale anchored at 1: More than once a week to 7: Never, or practically never

RELIGIOSITY	Responses to the question, "Regardless of your attendance at religious services, would you say you are:" using a 3-point ordinal scale from 1: a religious person to 3: an agnostic
RELINDEX	Index of responses to RELATTEND, RELTRUST, RELIGIOSITY, IDREL, and REFREL
RELTRUST	Responses to the question "Think about organized religion. As far as the people running these institutions are concerned, how much confidence do you have in them?" using a 4-point Likert scale anchored at 1: No confidence to 4: A great deal of confidence
ROBINGUILT1	Responses to seven-point Likert scale of initial suspicion of guilt for Robin (Black female suspect), anchored at 1: Extremely Unlikely and 7: Extremely Likely
ROBINGUILT2	Responses to seven-point Likert scale of subsequent suspicion of guilt for Robin (Black female suspect), anchored at 1: Extremely Unlikely and 7: Extremely Likely
RUBENGUILT1	Responses to seven-point Likert scale of initial suspicion of guilt for Ruben (Black male suspect), anchored at 1: Extremely Unlikely and 7: Extremely Likely
RUBENGUILT2	Responses to seven-point Likert scale of subsequent suspicion of guilt for Ruben (Black male suspect), anchored at 1: Extremely Unlikely and 7: Extremely Likely
TAMMYGUILT1	Responses to seven-point Likert scale of initial suspicion of guilt for Tammy (White female suspect), anchored at 1: Extremely Unlikely and 7: Extremely Likely
TAMMYGUILT2	Responses to seven-point Likert scale of subsequent suspicion of guilt for Tammy (White female suspect), anchored at 1: Extremely Unlikely and 7: Extremely Likely
URBAN	Responses to the question "Which of the following best describes where you grew up" using a seven-point scale anchored at 1: Large Metro Area to 7: Rural Area
YOB	Year of birth of the participant
ZBRS	Bayesian Racism Score in Z-Score terms
ZEXPLICIT	Interaction term of ZBRS * ZOFSS
ZOFSS	Old-Fashioned Sexism Score in Z-Score terms