

Reckless Gambles and Responsible Ventures: Racialized Prototypes of Risk-Taking

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Risk-taking is sometimes admired and sometimes disparaged. In this research, we examine previously unexplored questions concerning how membership in social groups is related to expectations and perceptions of risk-taking. We propose that prototypes of risk-takers incorporate racial associations. We conducted five studies ($N_{\text{Total}} = 1,603$, predominantly White residents of the United States) examining whether prototypes of risk-takers—primarily reckless and responsible ones—activate racial stereotypes and discrimination. We first focused on whether participants perceive Black (vs. White) men as more likely to engage in risk-taking, broadly construed (Study 1). Next, we tested whether the trait attributions (Studies 2 and 3) and mental images constructed with the reverse correlation task (Study 3) of reckless risk-takers are more stereotypically Black (and less White) than responsible risk-takers. In Study 4, we employed an investment game to investigate participants' willingness to trust targets we depicted using the racialized mental images of reckless and responsible risk-takers derived from Study 3. A final study examined whether thinking about reckless risk-takers evokes Black stereotypes broadly, including even positive stereotype content. Findings confirmed that reckless risk-takers were imagined as more phenotypically Black and as having more stereotypically Black traits (both positive and negative), compared with responsible risk-takers. Theoretical and practical implications for this novel stereotype content in the domain of risk are discussed.

Keywords: race, recklessness, responsibility, risk-taking, stereotyping

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From heroes, adventurers, and investors to villains, daredevils, and gamblers, there are many prototypical examples of people

willing to go out on a limb to acquire that all too elusive fruit. Consider which social groups come to mind when asked who takes reasonable and responsible risks versus reckless and impulsive risks. Do these groups differ by race?¹ Although much is known about how people engage with risk, an empirical understanding of how people mentally represent and associate risk-taking with social groups is largely absent. With the current work, we focus on understanding the mental representations of two prototypes of risk-takers—reckless and responsible—and whether such prototypes evoke racial connotations. We propose that these disparate approaches to risk-taking are infused with racialized content. We posit that reckless risk-takers are envisioned (primarily by White residents of the United States) as more stereotypically Black (and less White) than responsible risk-takers.

Conceptual prototypes—or central features of a concept—are useful and important to consider here, because prototypes help organize social perception (Cantor & Mischel, 1979; Fiske, 2019; Rosch, 1999). Risk-taking is a broad concept that encompasses a

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¹ We use the term *race* to specifically refer to the socially constructed understanding of groups based on perceived physical traits and assumed ancestry (Yee et al., 1993; Zuckerman, 1990). By using the term, we do not assume or imply the existence of race as a meaningful biological concept.

wide range of behaviors (Blais & Weber, 2006), wherein various prototypes of risk-takers are possible. For instance, consider someone who takes risks without properly considering the negative consequences involved (e.g., an overly optimistic gambler). Now, consider someone who thinks carefully about the downsides involved before making a risk decision (e.g., a well-informed investor). Both are examples of risk-taking; however, the underlying approach and evaluative connotation of these risks vary. Despite this intuitive distinction, little research has focused on how people come to understand others who take risks. Because risk-taking is a common and consequential experience in everyday life (Mishra, 2014), it is important and interesting to understand how people mentally represent prototypes of risk-takers. Indeed, William James (1895) once asserted, “It is only by risking our persons from one hour to another that we live at all” (p. 21), underscoring the relevance of the shared human pursuit of risk.

We focus on the potential racial connotations of risk-taking given the impactful nature of racial groupings in how humans perceive and evaluate each other (Dovidio & Jones, 2019; Fiske, 2019) and the ambiguity of risk behaviors (Mishra, 2014). Because ambiguity can facilitate racial biases (Dovidio & Jones, 2019), stereotyping might be leveraged in the interpretation of risk-takers. If associations between race and risk exist, then when the meaning of risk-taking is ambiguous, perceivers may use the race of a risk-taker to disambiguate the risk, and perceivers may make inferences about the race of a risk-taker when such information is not explicitly specified.

Such a pattern between race and risk associations would be evidence of bidirectional stereotyping, consistent with the connectionist model of stereotyping (e.g., Cox & Devine, 2015; Eberhardt et al., 2004). This model posits that stereotypes can be activated in two basic directions: (a) social group categories can activate attributes (e.g., when prompted with the group “men,” the attribute “assertive” may be activated); (b) attributes can activate social group associations (e.g., when prompted with the attribute “assertive,” the group “men” may be activated). Strong connections between groups and attributes are considered bidirectional. For instance, Cox and Devine (2015) found that in a predominantly White U.S. sample, the stereotypical attribute of “threatening” is bidirectional with the social group of “Black men.” This means that when participants listed stereotypical attributes of “Black men,” the attribute “threatening” was one of the most common attributes reported. The same goes for the reversal: “Black men” was one of the most common social groups reported when participants generated social groups who exhibit the attribute “threatening.” However, stereotypes can also be unidirectional, either primarily from a group-to-attribute direction or from an attribute-to-group direction. For instance, Cox and Devine (2015) also found that the stereotype attribute of “works for equal rights” strongly evokes spontaneous connections to Black men; however, that attribute is never activated when listing stereotypes of Black men, representing a unidirectional attribute-to-group association.

Although stereotyping research² has traditionally focused more on the group-to-attribute route, attribute-to-group stereotyping is theoretically a rich direction to investigate stereotypic associations (Cox & Devine, 2015). Prior research in this direction has demonstrated the fruitfulness of measuring social group associations from prototypical attributes. When social group membership is not visible, perceivers rely on visible stereotypical attributes to make

inferences of social group membership. For example, in the United States, people with gender-atypical body motions, body shapes, facial features, and fashion preferences are readily inferred to be gay or lesbian (Cox & Devine, 2014; Cox et al., 2016; Dotsch et al., 2011; Johnson et al., 2007). In addition to sexual orientation, particular concepts readily activate racial associations. People make stereotypical trait inferences of targets with Afrocentric facial features (i.e., shapes and hues), even if the target is categorically White (Blair et al., 2002). Racially ambiguous faces displaying angry expressions tend to be categorized as Black Americans, particularly among racially prejudiced perceivers (Hugenberg & Bodenhausen, 2004). Further, priming crime-related concepts (e.g., guns) strongly prompts visual attention to Black faces and misremembering Black faces as more stereotypically Black than they actually are (Eberhardt et al., 2004). When categorizing faces that appear “criminal,” police officers are more likely to select Black (over White) faces (Eberhardt et al., 2004). Socioeconomic status prototypes can also evoke racial connotations. Representations of “welfare recipients” and the “poor” summon mental images resembling Black faces (Brown-Iannuzzi et al., 2017; Lei & Bodenhausen, 2017).

Prototypes of Risk-Takers

Researchers across the behavioral sciences have largely agreed that risk is most broadly conceptualized as outcome variance (e.g., Mishra, 2014; Mishra et al., 2017). Risk-taking refers to selecting (or taking) options with relatively more outcome variance than options associated with less variance (Byrnes et al., 1999), for which there is the possibility of positive and negative consequences. Absent from this definition is any explicit stipulation of the valence of the behavior, although evaluative connotations can be implied.

Given this broad definition, taking risks can encompass a wide range of behaviors. From risking one’s physical health to financial wellbeing to social reputation and belonging, risk-taking emerges across many domains of life (Blais & Weber, 2006; Levenson, 1990). Some approaches to risk-taking could be viewed with a sense of recklessness, such as when people decide to speed, have unprotected sex, use drugs, gamble, or commit crimes (Barclay et al., 2018; Blais & Weber, 2006; Byrnes et al., 1999; Duell et al., 2018; Figner & Weber, 2011). Other approaches to risk-taking, however, might seem more responsible, such as when people decide to donate a kidney, stand up for what they believe is right, initiate a friendship, move across the country away from their family to pursue their career, or invest in the stock market (Becker & Eagly, 2004; Blais & Weber, 2006; Duell & Steinberg, 2019; Patterson et al., 2019).

The range of risks is not just limited to the domain in which the risks are taken, but the risk can vary in how they are engaged or approached. Risks can be taken rashly, without much thought or regard for the potential danger or consequences for oneself or others (Arnett, 1995; Donohew et al., 2000; Duangpatra et al., 2009). For example, poor self-regulatory competence has been

² It is important to note that the stereotyping literature reviewed uses samples primarily of White residents in the United States, and thus the claims reviewed do not necessarily generalize to populations beyond these samples.

linked to participation in risky behaviors (Magar et al., 2008; Steinberg, 2010). This approach would suggest that risks could be taken even when the potential costs are excessive. Alternatively, risks can be taken prudently and calculatedly, with careful thought and consideration of the future consequences of an action (Berman & West, 1998; Mishra et al., 2017). For example, courageous action involves the pursuit of risks that are appropriate and measured as opposed to reckless (Gal & Rucker, 2021). This approach suggests that risks could be pursued in a way that mitigates the unnecessarily high potential for loss.

Considering this literature, we identify and focus on dual prototypes of risk-taking. The first involves taking risks in thoughtless and ill-considered ways, even though the risk of negative consequences could be quite high. We term this prototype of risk-taking as *reckless risk-taking*. The second involves risks taken in thoughtful and considered ways, wherein the risks involved would appear reasonable and appropriate. We term this prototype of risk-taking as *responsible risk-taking*. Although reckless and responsible risk-taking can both involve substantial uncertainty regarding the outcome, it is likely that the greater degree of thoughtfulness integral to responsible risk-taking will generally be associated with lower perceptions of risk involved in the decision. That is, we think that people may intuitively conceptualize risk-taking by naturally tending to conflate deliberation and costs of risks. Further, because people rarely have insight into the thought-processes of others (Waytz et al., 2010), they may merely draw inferences about deliberation based on the apparent appropriateness of the risks taken. Though we center on these prototypes, there are certainly other combinations and dimensions of risk-taking that could be relevant for lay theories of risk-takers; however, we focus our inquiry on prototypes we predict contain racialized stereotype content.

Racial Stereotypes

Because we are interested in whether different social groups come to mind when considering various prototypes of risk-takers, we must consider potential evidence of risk-taking content in documented stereotypes. As described below, White Americans' stereotypes of Black Americans have been characterized as being relatively negative, masculine, and impulsive, and these qualities may overlap with beliefs about risk-taking, particularly in its more reckless forms.

As a means to promote, maintain, and justify inequality, Black Americans have been historically stereotyped in a negative light by White Americans (Kendi, 2017). Such negative stereotypes that are potentially related to risk-taking include the sexually promiscuous "Jezebel" for Black women, the uninhibited and animalistic "Mandingo" for Black men, and the media-driven portrayals of Black people as the "dangerous criminal" (Eberhardt et al., 2004; Goff, Eberhardt, et al., 2008; Johnson et al., 2008). Further, Black men have been stereotyped as aggressive, angry, over-sexed, threatening, and formidable (e.g., Calabrese et al., 2018; Duncan, 1976; Goff, Eberhardt, et al., 2008; Hugenberg & Bodenhausen, 2003, 2004; Wilson et al., 2017). Conversely, White people (particularly White men) have been stereotyped in some relatively less negative ways potentially related to risk-taking: ambitious, intelligent, and materialistic (Conley et al., 2010; Pet-sko & Bodenhausen, 2019; Skinner et al., 2020; Zou & Cheryan, 2017).

Racial stereotypes are also gendered (e.g., Eagly & Kite, 1987). For instance, White Americans tend to conflate "Blackness" with "maleness" (Goff, Thomas, et al., 2008). Black facial cues tend to be phenotypically associated with masculinity, such that Black (but not White) ambiguously gendered faces are overcategorized as male (Johnson et al., 2012). Black Americans (relative to White Americans) also tend to be stereotyped as relatively dominant and athletic, consistent with masculine stereotypes (Galinsky et al., 2013). Gender stereotypes have been found to encompass beliefs about risk-taking: Taking risks is often implied as a stereotype of the male gender role of agency and assertiveness (Sczesny et al., 2018; Wood & Eagly, 2012). Men in the United States have also been consistently stereotyped as more reckless than women over the past fifty years (Nesbitt & Penn, 2000). Indeed, men tend to take more risks than women in a variety of potentially dangerous contexts (Blais & Weber, 2006; Byrnes et al., 1999). However, women tend to be more likely than men to take risks in ways that could be viewed as responsible. For example, women are more likely than men to indicate that they would donate a kidney, request flexible working arrangements, confront a friend or colleague about offensive remarks, and advocate for social justice (Becker & Eagly, 2004; Morgenroth et al., 2018).

Black people also face stereotypes of impulsivity (Duncan, 1976; Williams et al., 2016; Wittenbrink et al., 1997). Stereotypes of impulsivity—the tendency to act on a whim for short-term gains, neglecting long-term consequences—may be applied to Black Americans as a function of believing they tend to occupy harsh and unpredictable ecologies (Williams et al., 2016). Taken together, such negative, masculine, and impulsive stereotypes that surround Black people might lead people to stereotype Black people as relatively reckless risk-takers. Though this literature is suggestive of possible associations of reckless risk-taking with Blackness, such associations have not been directly tested.

The Current Research

We sought to understand whether people view risk-takers in racialized ways. No known research has empirically investigated how people perceive risk-takers or whether these perceptions are associated with racial groups. First, we tested whether people will perceive Black men as more willing to take risks than White men (Study 1). Next, we sought to scrutinize whether specific prototypes of risk-takers are racialized. We tested whether people (race unspecified) described as taking reckless risks are attributed traits consistent with Black stereotypes (Study 2). Conversely, we tested whether people seen as taking risks responsibly are attributed traits consistent with White stereotypes. In Study 3, we examined whether participants also spontaneously envisioned reckless and responsible risk-takers in phenotypically racialized ways. We tested whether the visual representations of reckless (vs. responsible) risk-takers are perceived as phenotypically more Black (and less White) and attributed more stereotypically Black (and less White) traits.

In Study 4, we examined the potential consequences of racialized risk-taker associations. In a financial investment scenario (with real money at stake for decision-makers), we tested whether visual representations of reckless risk-takers (derived from social perceivers' mental images of this category) are discriminated against in favor of visual representations of responsible risk-takers

—resulting in lower pay for individuals whose facial appearance happens to look like a reckless risk-taker (Study 4).

To confirm that the risk-taking prototypes spontaneously activate racial associations broadly, we examined whether these associations would hold for positive racial stereotypes that are directly unrelated to risk-taking (Study 5). In other words, we were interested in whether people would guess that a reckless (vs. responsible) risk-taker has more Black stereotypic behaviors traits (and fewer White stereotypic behaviors and traits), even when those characteristics are positive (or at least neutral) in valence and unrelated to risk-taking.

Study materials and data for all five studies reported are available on the Open Science Framework (OSF): https://osf.io/vt2wk/?view_only=4aa85e8975af404a818d69ef32ad02a7. The Institutional Review Board approved of the studies reported in this article.

Study 1

We tested whether the race of stimulus persons was associated with perceptions of risk-taking, broadly construed, and with perceptions of masculinity. Several facial images of Black and White men were rated on perceived masculinity and again on perceived risk-taking. We also tested whether the relation between stimulus race and risk-taking perceptions was mediated by masculinity perceptions. Because it was not the main focus of this paper, the mediation results are reported in the [online supplemental materials](#).

Method

Participants and Design

A sample of 147 MTurk workers participated in an online study in exchange for \$.50. We used the Qualtrics survey platform to conduct our study and sampled the MTurk population. The sample (71 women, 75 men, and one nonbinary individual) consisted of mostly White people (105 White, four Black, 19 Latino, 16 Asian, and eight multiracial) and their ages ranged from 18 to 71 years ($M = 35.88$, $SD = 11.89$). The sample was generally politically moderate ($M = 3.72$, $SD = 1.78$, on a 7-point scale from 1 = *very liberal* to 7 = *very conservative*).

This study was a within-subjects design in which all participants rated the perceived masculinity and perceived risk-taking of each of the 60 men (30 Black, 30 White) based on their headshots. According to Judd et al. (2012), in a design where participants are crossed with condition and stimuli (and are nested within its two levels), a sample size of 30 participants would be sufficient to detect a medium effect at 80% statistical power using 70 stimuli in a two-condition study (35 stimuli per condition). We opted to recruit a substantially larger sample size of approximately 150, to have the statistical power to detect small effects with greater precision and to have a wider range of respondent diversity than would be captured with only 30 participants.

Procedure and Material

Participants were asked to make two different sets of judgments about facial images: (a) perceptions of masculinity and (b) perceptions of risk-taking. Perceived masculinity was measured by rating the target image from 0 = *not at all* to 100 = *extremely* (sliding scale). Perceived risk-taking was measured with a rating from 0 = *not at all* to 100 = *extremely*. To give participants the same point

of reference, “masculine” and “risk-taking” were broadly defined before making respective ratings. Masculinity was defined as having qualities or appearance traditionally associated with men, especially strength and aggressiveness. Risk-taking was defined as the willingness to take risky action in the hope of a desired result. Both definitions were taken from their dictionary meanings to most closely capture how laypeople come to understand these terms. Participants rated all faces (randomly presented) on perceived masculinity and then again on perceived risk-taking. To manipulate race, facial images were borrowed with permission from the Chicago Face Database (CFD; Ma et al., 2015). The highest-rated racially prototypical facial images of Black men (30 images) and White men (30 images) with affectively neutral expressions were selected. The images were also matched between race conditions on the perception of attractiveness, threat, and age (i.e., the mean ratings of these images did not differ as a function of race).

Results

We examined whether Black faces would be rated as more masculine and more risk-taking than White faces. To test our hypothesis, we relied on multilevel models that allowed us to account for the race manipulation to be nested within each participant and stimuli as crossed random factors. As recommended by Judd et al. (2012), we included a random intercept for stimuli and allowed target race to vary randomly across participants (i.e., response = target race + [1 | stimuli] + [target race | participants]). The first multilevel model analysis yielded a fixed effect of stimulus race on perceptions of risk-taking in the predicted direction, $M_{diff} = 4.52$, ($SE = 1.45$), 95% confidence interval [1.57, 7.46], $F(1, 145) = 9.18$, $p = .003$, $d = .20$. Black men were rated as significantly more likely to take risks ($M = 59.49$, $SD = 21.79$) than White men ($M = 54.98$, $SD = 23.37$). The second multilevel model analysis yielded a moderately large fixed effect of stimulus race on perceptions of masculinity in the predicted direction, $M_{diff} = 8.47$ ($SE = 1.58$), 95% confidence interval [5.48, 11.45], $F(1, 86.7) = 31.69$, $p < .001$, $d = .42$. That is, Black men were rated as significantly more masculine ($M = 71.67$, $SD = 19.79$) than White men ($M = 63.20$, $SD = 21.50$). Lastly, we found a positive correlation between participants’ perceptions of masculinity and risk-taking of the facial images presented, $r(8819) = .27$, $p < .001$.

Discussion

These results supported our hypothesis that Black men are judged as more likely to take risks than White men. We examined whether a race–risk association can be directly detected accounting for the idiosyncratic features of stimuli. Using multilevel modeling and treating sample stimuli as a random factor, we observed relatively little variance between stimuli within racial categories (random effects variance attributable to stimuli = 16.26), suggesting that the observed effects were most likely due to the stereotypical activation of the racial categories (random effects variance due to racial category = 149.04). By taking these steps, we were better situated to conclude that the observed effects are driven by the concept of race and not by any particular stimuli. Because we measured perceived masculinity before perceived risk-taking, it is worth noting that participants may have been primed to associate risk-taking with race. This finding supported the predicted racial

association with taking risks, and the subsequent studies illuminate a more nuanced understanding of the race-risk connection.

Study 2

The first study provided evidence of a Black male association with generalized risk-taking. We next examined whether more specific forms of risk could provide a more nuanced and precise understanding of the racialized nature of risk-taking representations. We investigated two distinct prototypes of risk-taking: reckless and responsible. Because Black stereotype content can be relatively negative, masculine, and impulsive, we expected that the race associations of risk may manifest as an association between Blackness with reckless risk-taking as well as between Whiteness and responsible risk-taking.

We first examined whether racial associations are evident in people's trait representations of these prototypes of risk-takers. Specifically, participants were randomly assigned to nominate traits of one of the risk-taker prototypes, and then we tested whether the traits nominated differ in how stereotypically Black and White they are perceived to be. We predicted that the traits nominated for reckless risk-takers to be rated as more stereotypically Black (and less stereotypically White) than the traits nominated for responsible risk-takers. We preregistered our hypotheses on OSF: https://osf.io/6yhwd/?view_only=d2a4ace14c634c268110f520576e9418.

We explored whether masculinity and femininity of traits differed between risk-taker prototypes. We also tested whether the predicted racialization of each risk-taker category could be explained by other features associated with the traits selected. Considering that reckless and responsible risk-taking likely connote differences in valence, we tested whether positivity alone accounted for any racialization differences between the risk-taker prototypes beyond other possible qualities, such as class, age, and gender associations.

Method

Design and Participants

This experiment has a single, between-subjects factor: target risk-taker (reckless, responsible). A total sample of 304 MTurk workers participated in an online study in exchange for \$.60. We used Qualtrics to conduct our study and sampled the MTurk population using TurkPrime sampling services. Given that we did not have an effect size with which to calculate an a priori power analysis, we planned to target a relatively large sample of 150 participants per condition. We thus planned to recruit approximately 300 participants to have enough statistical power to detect medium-sized effects (e.g., Ledgerwood, 2019). The sample (180 women, 121 men, two transgender individuals, and one nonbinary individual [options were not mutually exclusive, in that all options that apply could be selected]) consisted mostly of White people (203 White, 37 Black, 33 Latino, 26 Asian, seven Middle Eastern, and 11 multiracial) and their ages ranged from 18 to 70 ($M = 31.85$, $SD = 9.77$). The sample was generally well-educated (44.4% indicated having a bachelor's degree or higher) and politically moderate ($M = 3.72$, $SD = 1.47$, with the 7-point scale from Study 1). In this study (and the subsequent studies), we used a quality control feature to prevent access to those who do not pass basic English comprehension checks.

Procedure and Material

Participants were told that the researchers were interested in which personality traits people associate with various social roles. Participants were then told that they would see a checklist of personality traits and were requested to look them over and select all traits that represent the category randomly assigned: either responsible risk-takers or reckless risk-takers.

Participants were then provided with a brief definition of whichever risk-taker prototype they were assigned. Responsible risk-takers were described as "people who take chances to achieve things they desire, but they carefully consider the potential downside that may be involved; they are willing to take risks only when the potential costs are reasonable." Reckless risk-takers were described as "people who take chances to achieve things they desire, without really considering the potential downside that may be involved; they are willing to take risks even when the potential costs could be quite high."

Participants were next requested to take a moment to consider what personality traits are associated with the risk-taker prototype and then were directed to select all traits that represent the risk-taker prototype from 99 traits presented in a randomized order. The personality traits presented were taken from a stereotype checklist commonly used in stereotyping research (Galinsky et al., 2013; Katz & Braly, 1933; Petsko & Bodenhausen, 2019). Consistent with the approach by Petsko and Bodenhausen (2019), after making their initial nominations, participants were subsequently presented with their nominations and were then asked to select the top ten traits that are the best representative of the risk-taker category. Upon completion of their final trait nominations, participants responded to demographics questions and then were debriefed.

To determine the extent to which the top traits nominated for each risk-taker prototype were stereotypically racialized, we calculated Blackness and Whiteness scores for each of the traits using racial stereotypicality ratings provided by independent samples reported in prior research (Petsko & Bodenhausen, 2019). Petsko and Bodenhausen recruited 320 MTurk workers (208 men, 119 women; $M_{\text{age}} = 33.85$, $SD_{\text{age}} = 10.60$; 244 White, 26 Asian, 23 Black, 16 Latinx, three multiracial, three other) to rate how stereotypically Black or White the average American would consider each of the 99 personal traits (from the stereotype checklist), from 1 = *Not at all [Black, White]* to 7 = *Very [Black, White]*. Using these Blackness and Whiteness scores for each trait, we computed how stereotypically Black and how stereotypically White each participant's top ten traits were, on average. We used the same procedure to calculate how masculine, feminine, positive, old, and high status were the traits selected for each of the risk-taker prototypes.

Using the trait ratings of these dimensions, we conducted exploratory mediation analyses using the Hayes (2017) PROCESS examining the effect of the risk-taker category on the stereotypical Blackness outcome with positivity, socioeconomic status, oldness, masculinity, and femininity as simultaneous mediators (with 5000 bootstrap samples). We then repeated this analysis with stereotypical Whiteness as the outcome.

Results

Primary Racial Stereotypicality Analyses

Using independent samples t-tests, we tested whether the racial stereotypicality scores computed for the traits nominated for each risk-taker prototype significantly differed on average (see Table 1).

Table 1
Most Nominated Traits for Risk-Takers

Trait	Reckless risk-taker				Trait	Responsible risk-taker			
	Trait	%	M_{Black}	M_{White}		Trait	%	M_{Black}	M_{White}
1	Impulsive	78	5.05	4.40	1	Intelligent	61	2.76	5.08
2	Arrogant	48	5.04	4.84	2	Ambitious	57	2.91	5.19
3	Aggressive	47	5.44	3.51	3	Persistent	49	3.81	4.91
4	Quick-tempered	38	5.38	3.77	4	Efficient	46	2.72	4.78
5	Stubborn	35	4.69	4.69	5	Practical	45	2.83	4.40
6	Radical	33	4.37	3.30	6	Passionate	39	4.29	4.59
7	Ambitious	32	2.91	5.19	7	Methodical	38	2.76	4.54
8	Persistent	30	3.81	4.91	8	Straightforward	38	4.13	4.69
9	Unreliable	30	4.99	2.95	9	Patient	37	2.30	4.26
10	Boastful	28	5.14	4.77	10	Alert	32	3.68	4.56

Note. % indicates the percentage of participants within the risk-taker condition that nominated the corresponding trait as most representative. M indicates the stereotypic Blackness and Whiteness mean scores of the listed trait.

As predicted, participants nominated stereotypically Blacker traits for the reckless risk-taker than for the responsible risk-taker, $M_{\text{diff}} = 1.35$ ($SE = .04$), 95% confidence interval [1.26, 1.44], $t(302) = 30.53$, $p < .001$, $d = 3.50$ (see Table 2). As expected, participants nominated stereotypically Whiter traits for the responsible risk-taker than for the reckless risk-taker, $M_{\text{diff}} = .47$ ($SE = .03$), 95% confidence interval [.41, .53], $t(302) = 15.68$, $p < .001$, $d = 1.80$ (see Figure 1). We also tested whether the stereotypical Blackness (vs. Whiteness) scores were higher for the reckless risk-taker traits but lower for the responsible risk-taker traits. As predicted for the traits nominated for reckless risk-taker, we found that the stereotypical Blackness of the traits was higher ($M = 4.67$, $SD = .28$) than the stereotypical Whiteness ($M = 4.18$, $SD = .32$), $M_{\text{diff}} = .49$ ($SE = .03$), 95% confidence interval [.43, .56], $t(302) = 14.30$, $p < .001$, $d = 1.64$. As expected for the traits nominated for the responsible risk-taker, the stereotypical Blackness of the traits was lower ($M = 3.32$, $SD = .47$) than the stereotypical Whiteness ($M = 4.65$, $SD = .19$), $M_{\text{diff}} = 1.33$ ($SE = .04$), 95% confidence interval [1.25, 1.41], $t(302) = 32.51$, $p < .001$, $d = 3.73$. Our preregistered hypotheses were robustly supported.

Exploratory Gender Stereotypicality Analyses

We tested whether the traits nominated for each risk-taker category are differentiated on gender stereotypicality. Although descriptively, participants nominated more masculine traits for the reckless risk-taker than for the responsible risk-taker, $M_{\text{diff}} = .06$ ($SE = .03$), 95% confidence interval [−.01, .12], $t(302) = 1.73$, $p = .086$, $d = .20$, though this difference was not statistically significant. Participants nominated more feminine traits for the responsible risk-taker than for the reckless risk-taker, $M_{\text{diff}} = .33$ ($SE = .04$), 95% confidence interval [.26, .40], $t(302) = 9.29$, $p < .001$, $d = 1.06$.

Exploratory Mediation Analyses

We explored whether positivity alone accounted for the racialization differences between each risk-taker category beyond other possible associations. The mediational results indicate that the perceived association of positivity, socioeconomic status, oldness, and femininity with the traits selected for reckless (vs. responsible) risk-takers uniquely and significantly explained variance in the stereotypical Blackness of these risk-takers (see Figure 2).³ The results for the stereotypical Whiteness outcome were nearly the same,

except that positivity was not a significant mediator (see Figure 3). See the online supplemental materials for the full reporting of mediation results. These findings suggest that the difference in the racialization of reckless and responsible risk-takers is not simply attributable to valence ostensibly associated with these categories.

Discussion

Our preregistered hypotheses were confirmed, such that the trait representations of reckless (vs. responsible) risk-takers were more stereotypically Black and less stereotypically White. These findings emerge even though the race of the risk-takers was never indicated or implied, suggesting that the racialization of risk-takers occurred spontaneously. This study builds on our initial evidence of a generalized Black-risk association by providing a more nuanced picture concerning the ways risk-takers are racialized, such that Black stereotypes appear to be specifically associated with reckless risk-taking more strongly than risk-taking broadly.

We found that the racialization of risk-takers was not simply reducible to the generally negative and positive valences potentially associated with these risk-taker prototypes. In fact, the perceived Whiteness of these risk-taker prototypes was not mediated by valence. Perceived Blackness was mediated by multiple other factors beyond positivity. The racial distinction between risk-taker prototypes was not simply a function of how negative or positive it is perceived to be. Moreover, there are multiple factors seemingly contributing to this pattern, and the effects cannot be reduced to any single factor tested as none of them were full mediators.

Study 3

We have provided evidence of a generalized Black-risk association when evaluating the perceived risk-taking propensity of Black

³The positive relationship between femininity and blackness results when statistically accounting for the other mediators simultaneously; however, this relationship is negative when examining femininity and blackness independent from the other mediators, $r(304) = -.49$, $p < .001$, linear regression: $\beta = -.49$, $t(302) = -9.79$, $p < .001$. This reversal in association between femininity and blackness is consistent with the statistical phenomena of suppression effects (e.g., Tu, Gunnell, & Gilthorpe, 2008). A potential explanation of the reversal is that femininity and blackness stereotypes may share a common perception of low status/inferiority when accounting for the other mediators in the model.

Table 2
Means and Standard Deviations of Nominations of Risk-Takers

Trait nominations	Reckless risk-taker		Responsible risk-taker	
	<i>M</i>	<i>(SD)</i>	<i>M</i>	<i>(SD)</i>
Trait Blackness	4.67	(0.28)	3.32	(0.47)
Trait Whiteness	4.18	(0.32)	4.65	(0.19)
Trait masculinity	4.47	(0.29)	4.41	(0.28)
Trait femininity	3.71	(0.37)	4.05	(0.25)

and White men (Study 1). We also found that racial stereotypes overlap with two prototypes of risk-taking (Study 2). Given that trait representations of risk-takers evoke social content, we wanted to test for convergent evidence by examining whether the visual images people picture of risk-takers are also racialized.

We asked whether people envision reckless and responsible risk-takers in racially differentiated ways and whether this visualization corresponds with how stereotypes of risk-takers are racialized. We investigated the imagined facial phenotypes of responsible and reckless risk-takers using the reverse correlation task. The reverse correlation task is a method that aggregates perceivers' selections of randomly varying visual stimuli to produce a two-dimensional spatial representation of the targeted mental representation (Brinkman et al., 2017; Dotsch & Todorov, 2012). The visual stimuli are created by overlaying many random noise patterns over the same base image. Participants classify these created stimuli on some construct (such as a social group category, emotion, or trait), and then their classifications are aggregated to produce a composite (or classification image or CI) of the target construct. We can also construct composite images based on the faces that were not chosen in the dichotomous choice trials (or the anticlassification image or anti-CI), which by definition are deemed less representative of the target construct than the chosen images. The anticlassification images may conceptually resemble the opposing ends of the target dimensions (Dotsch & Todorov, 2012), because we define reckless and responsible risk-taking as opposing constructs. To examine perceptions of classification images, a different set of participants rate the CI on a dimension of

interest and then compare these ratings to that of a CI produced with a different construct of interest and/or to the anti-CI.

We examined whether the trait representations attributed to the visual constructions of the risk-taker prototypes are racialized (and gendered). We predicted that the traits attributed to the reckless risk-taker image would be stereotypically more Black (and masculine) as well as stereotypically less White (and feminine) than the traits attributed to the responsible risk-taker image. Because anti-CIs represent the conceptual opposite of what participants imagined the target construct to look like, we expected the opposite pattern of results for the antireckless and antiresponsible images, providing convergent evidence of racialization. We anticipate this pattern because reckless and responsible risk-taking are theoretically opposing constructs, given the definitions provided to participants.

We also tested whether the racial and gender phenotypicity of reckless risk-takers and responsible risk-takers would significantly differ. We expected ratings of phenotypic Blackness-to-Whiteness and masculinity-to-femininity (both on a single continuum) to be higher for reckless than responsible risk-takers. We expected the opposite pattern for the antireckless and antiresponsible images. To be transparent, we collected additional classification judgments regarding the concept of a "reluctant risk-taker" for exploratory purposes, but these data were outside the primary focus of this paper, so the data are available on OSF.

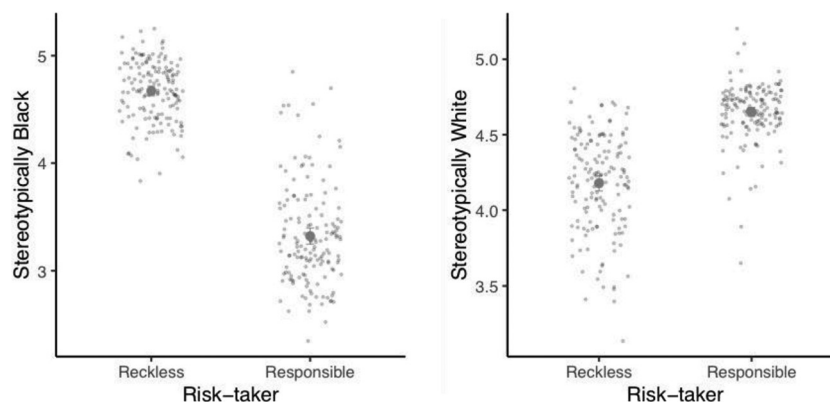
Method

This study employed a two-phase method. In Phase 1, we used the reverse correlation task to construct the risk-taker prototype images. In Phase 2, we used a separate sample to measure the race and gender perception content of the risk-taker prototype images constructed from Phase 1.

Phase 1

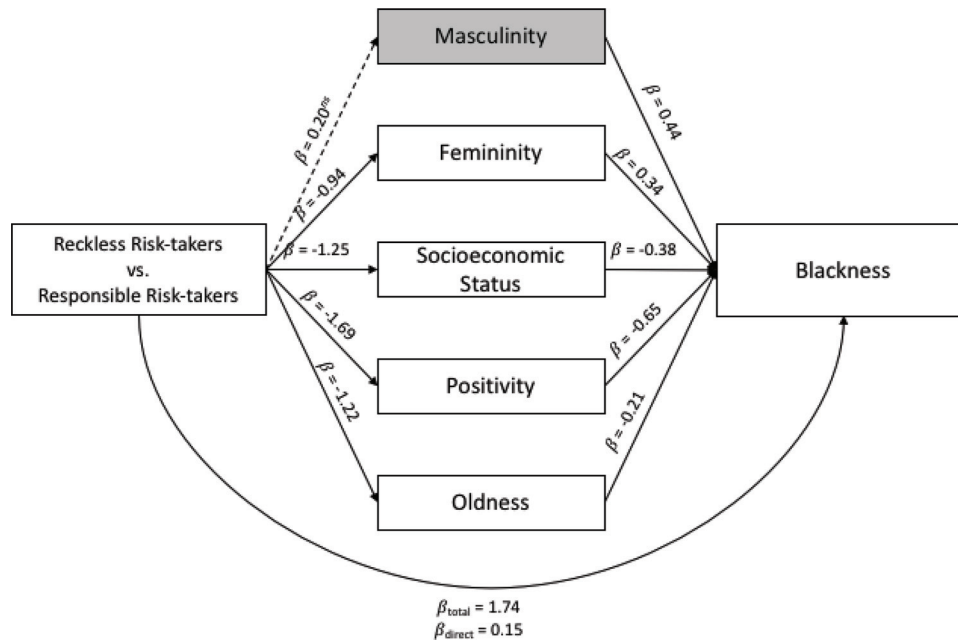
Participants. For the reverse correlation task, a total sample of 301 MTurk workers participated in an online study in exchange for \$1.50. We aimed for a large sample to increase the precision of constructed images. We used Qualtrics to conduct our study and sampled the MTurk population using TurkPrime. The sample (174

Figure 1
Trait Attributions of Racial Stereotypicality



Note. Individual responses, means, and 95% CIs (error bars) of the trait attributions.

Figure 2
Statistical Mediation Model Explaining Blackness



Note. Standardized regression coefficients for the relationship between the risk-taking category and stereotypical Blackness of traits nominated as simultaneously mediated by various dimensions. Greyed mediators indicate nonsignificant indirect effects for that pathway. The direct effect remains significant with the inclusion of the mediators. Dotted lines indicate nonsignificant pathways.

women, 126 men, 2 transgender individuals, and 3 nonbinary individuals [gender categories were not mutually exclusive; e.g., participants could select both “woman” and “transgender”]) consisted of mostly White people (190 White, 47 Black, 36 Latino, 22 Asian, one Middle Eastern, and 14 multiracial) and their ages ranged from 18 to 65 ($M = 32.34$, $SD = 9.52$). The sample was generally well-educated (50.8% indicated having a bachelor's degree or higher) and politically slightly liberal ($M = 3.56$, $SD = 1.57$, on the same scale previously reported).

Materials. We created a series of facial stimuli for participants in Phase 1 to complete the reverse correlation task. Following the recommended procedure and specifications (Brinkman et al., 2017; Dotsch & Todorov, 2012), the original stimuli was specified to consist of 300 randomized sine-wave black-white noise patterns superimposed over a base facial image (all stimuli were selected for use; see Figure 4). Images were generated using the roicer package in R (Brinkman et al., 2017). The base image was created by averaging a range of database faces based on race (Black, White, Asian, Latino) and gender (female, male).⁴ In addition to the original images, we created 300 images that were the mathematical inverse (visually) of the original images (for a total of 300 original images and 300 inverse images). After participants made their selections, we created aggregated images (using R) of what participants envision reckless and responsible risk-takers (and anti-CIs) look like (see Figure 5).

Procedure. Participants were told that the researchers were interested in learning about how people envision what others look like. Participants were then told that they would get to respond to a series of faces, whereby two faces will be presented

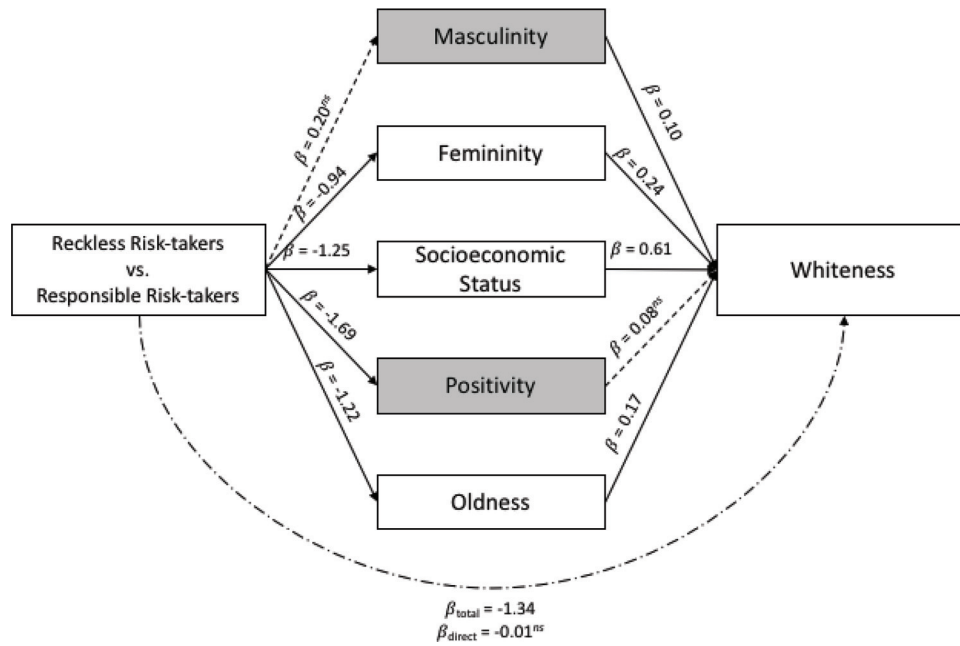
side-by-side for each trial. Participants were instructed to select the face in each pair that most resembles the risk-taker category to which they were randomly assigned: either responsible risk-takers or reckless risk-takers. Using the same descriptions provided in the previous study, the risk-taker category assigned was described to participants and then we directed them to take a moment to consider what people in the risk-taker category look like. After reviewing the provided definition of the risk-taker prototype and contemplating what a risk-taker might look like, participants were presented with 300 trials (appearing in a random sequence only once) wherein they had to decide which risk-taker image looked most reckless or most responsible. For each trial, participants were presented with two images side-by-side: an original image and its corresponding inverse image (with the presentation order left-to-right randomized). Participants were prompted to select from these two images of the target that looks most reckless or most responsible depending upon which condition they were randomly assigned. Upon completion of their selections across 300 trials, participants answered a few demographics questions and then were debriefed.

Phase 2

Participants. For the ratings of the (anti-)classification images, a sample of 402 MTurk workers participated in an online study in exchange for \$.90. We aimed to recruit at least 100 participants to rate each image. We used Qualtrics to conduct our study

⁴ We thank colleague Natalie Gallagher for creating and sharing the base face image.

Figure 3
Statistical Mediation Model Explaining Whiteness



Note. Standardized regression coefficients for the relationship between the risk-taking category and stereotypical Whiteness of traits nominated as simultaneously mediated by various dimensions. Greyed mediators indicate nonsignificant indirect effects for that pathway. The direct effect becomes non-significant with the inclusion of the mediators. Dotted lines indicate nonsignificant pathways (e.g., the direct effect after the inclusion of the mediators).

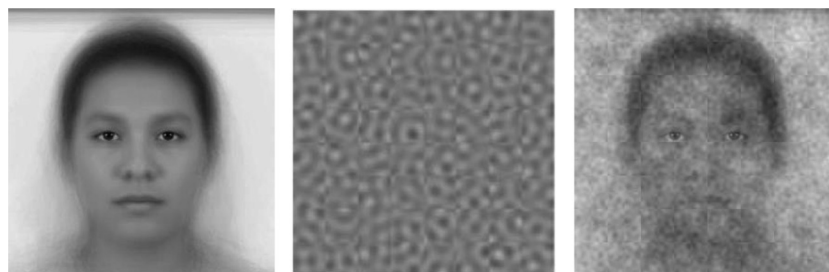
and sampled the MTurk population using TurkPrime. The sample (204 women, 194 men, two transgender individuals, and two non-binary individuals [gender categories were not mutually exclusive]) consisted of mostly White people (256 White, 51 Black, 40 Latino, 39 Asian, three Middle Eastern, and 30 multiracial) and their ages ranged from 18 to 77 ($M = 31.82, SD = 10.47$). The sample was generally well-educated (45.2% indicated having a bachelor's degree or higher) and politically slightly liberal ($M = 3.67, SD = 1.52$, on the same scale previously reported).

Materials. Participants nominated traits that they would attribute to the face in the (anti-) classification image. We measured this the same way as in the previous study, wherein participants were presented with 99 traits that were previously rated on their

stereotypical Blackness, Whiteness, masculinity, and femininity (Petsko & Bodenhausen, 2019).

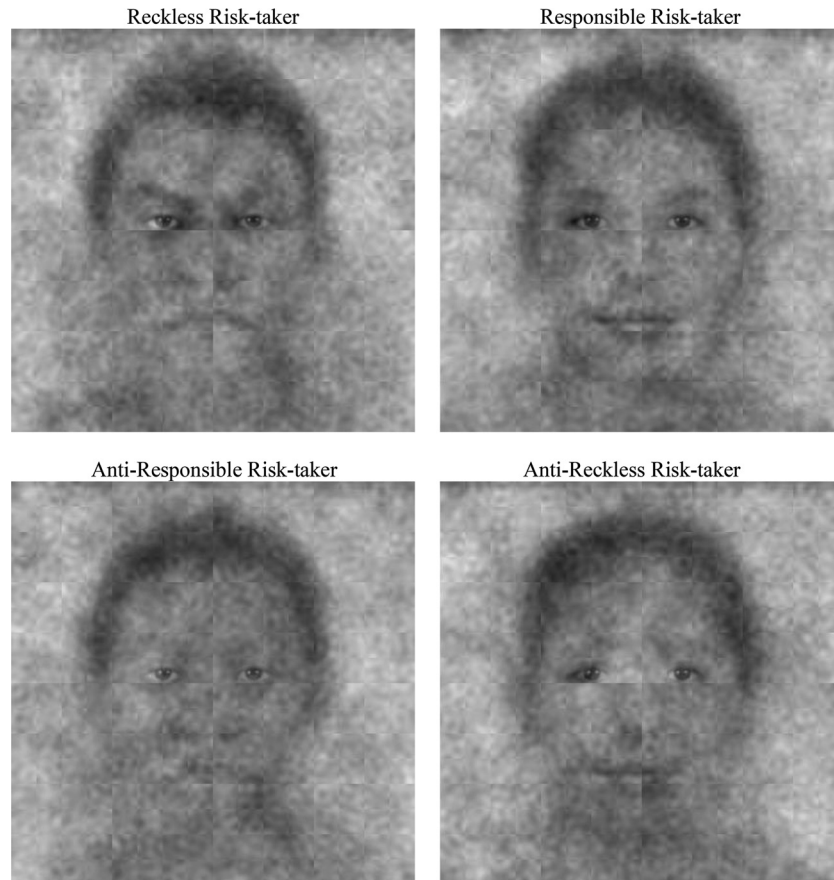
Participants also rated the (anti-)classification images produced in the reverse correlation task on the phenotypic race and gender prototypicality. Race perception was measured on a single continuum, using a 9-point bipolar scale from 1 = *Eurocentric* to 9 = *Afrocentric*. Eurocentric was defined as “having European or White physical features;” Afrocentric was defined as “having African or Black physical features.” Gender perception was measured on a single dimension, using a 9-point bipolar scale from 1 = *masculine* to 9 = *feminine*. Masculine was defined as “having qualities or appearance traditionally associated with men;” feminine was defined as “having qualities or appearance traditionally associated with women.”

Figure 4
Sample Reverse Correlation Stimulus Materials



Note. The base face (left), an example of a random sine-wave noise pattern (center), and an example of the noise pattern superimposed over the base face (right).

Figure 5
Classification Images



Note. The (anti-)classification images produced for each risk-taker category: reckless (top left), responsible (top right), anti-responsible (bottom left), and anti-reckless (bottom right).

For exploratory purposes, we measured target perceptions of communion (warmth, morality) and agency (competence, assertiveness). We also examined the ratings of socioeconomic status, positive valence, and age associated with the traits selected for the images. The method and results of these ratings are reported in the [online supplemental materials](#).

Procedure. Participants were told that the researchers were interested in learning about how people form impressions of others and were instructed to make a series of judgments of the randomly assigned (anti-)classification image. Of the 99 presented traits, participants first nominated all the traits that they would attribute to the face pictured in the (anti-)classification image and then they narrowed down their selections to the ten most representative traits. Participants then provided the ratings on racial and gender phenotypicity perceptions. Last, participants answered demographic questions and then were debriefed and compensated.

Results

Trait Attributions

Race Stereotypicity. As predicted, participants nominated stereotypically Blacker traits for the reckless risk-taker image than

for the responsible risk-taker image, $M_{\text{diff}} = .92$ ($SE = .11$), 95% confidence interval [.71, 1.14], $t(197) = 8.44$, $p < .001$, $d = 1.20$ (see [Tables 3-4](#)). Conversely, participants also nominated stereotypically Whiter traits for the responsible risk-taker image than for the reckless risk-taker image, $M_{\text{diff}} = .35$ ($SE = .05$), 95% confidence interval [.25, .45], $t(197) = 6.69$, $p < .001$, $d = .95$ (see [Figure 6](#)).

We expected the opposite pattern to emerge for anti-CIs. As anticipated, participants nominated stereotypically Blacker traits for the antiresponsible risk-taker image ($M = 3.39$, $SD = .85$) than for the antireckless risk-taker image ($M = 3.14$, $SD = .76$), $M_{\text{diff}} = .25$ ($SE = .11$), 95% confidence interval [.03, .47], $t(201) = 2.21$, $p = .028$, $d = .31$. Conversely, participants also nominated stereotypically Whiter traits for the antireckless risk-taker image ($M = 4.09$, $SD = .35$) than for the antiresponsible risk-taker image ($M = 3.90$, $SD = .45$), $M_{\text{diff}} = .19$ ($SE = .06$), 95% confidence interval [.08, .30], $t(201) = 3.33$, $p = .001$, $d = .47$. The results for the anti-classification images mirrored that of the classification images.

Gender Stereotypicity. As anticipated, participants nominated traits that were stereotypically more masculine for the reckless risk-taker image than for the responsible risk-taker image, $M_{\text{diff}} = .62$ ($SE = .07$), 95% confidence interval [.49, .75], $t(197) = 9.47$, $p < .001$, $d = 1.34$ (see [Table 4](#)). As expected, participants

Table 3
Most Nominated Traits for the Risk-Taker Images

Trait	Reckless risk-taker				Trait	Responsible risk-taker			
	Trait	%	<i>M</i> _{Black}	<i>M</i> _{White}		Trait	%	<i>M</i> _{Black}	<i>M</i> _{White}
1	Hostile	44	5.28	3.34	1	Quiet	53	2.01	3.73
2	Aggressive	36	5.44	3.51	2	Gentle	45	2.41	4.23
3	Suspicious	31	4.95	3.92	3	Kind	45	3.23	4.56
4	Quiet	27	2.01	3.73	4	Polite	35	2.63	4.91
5	Humorless	26	2.62	3.51	5	Reserved	30	2.10	3.88
6	Criminal	25	5.40	2.87	6	Shy	27	2.01	3.35
7	Quick-tempered	22	5.38	3.77	7	Honest	24	3.12	4.51
8	Reserved	22	2.10	3.88	8	Patient	22	2.30	4.26
9	Violent	21	5.26	3.18	9	Sensitive	22	2.99	4.51
10	Argumentative	19	5.30	4.24	10	Courteous	17	2.58	4.68

Note. % indicates the percentage of participants within the risk-taker condition that nominated the corresponding trait as most representative. *M* indicates the stereotypic Blackness and Whiteness mean scores of the listed trait.

nominated traits that were stereotypically more feminine for the responsible risk-taker image than for the reckless risk-taker image, $M_{diff} = 1.11$ ($SE = .09$), 95% confidence interval [.93, 1.28], $t(197) = 12.49$, $p < .001$, $d = 1.77$.

As anticipated, participants nominated traits that were stereotypically more masculine for the antiresponsible risk-taker image ($M = 3.49$, $SD = .52$) than for the antireckless risk-taker image ($M = 3.26$, $SD = .57$), $M_{diff} = .23$ ($SE = .08$), 95% confidence interval [.08, .38], $t(201) = 3.04$, $p = .003$, $d = .43$. As anticipated, participants also nominated traits that were stereotypically more feminine for the antireckless risk-taker image ($M = 4.60$, $SD = .64$) than for the antiresponsible risk-taker image ($M = 4.05$, $SD = .71$), $M_{diff} = .55$ ($SE = .10$), 95% confidence interval [.37, .74], $t(201) = 5.82$, $p < .001$, $d = .82$.

Phenotypicity Perceptions

Race Phenotypicity. As predicted, we found that the reckless risk-taker image was rated as significantly more Afrocentric (relative to Eurocentric) than the responsible risk-taker image, $M_{diff} = 1.41$ ($SE = .28$), 95% confidence interval [.87, 1.95], $t(197) = 5.13$, $p < .001$, $d = .73$ (see Table 4). As predicted, we found that the antiresponsible risk-taker image was rated as significantly more Afrocentric ($M = 7.05$, $SD = 1.87$) than the antireckless risk-taker image ($M = 5.74$, $SD = 1.88$), $M_{diff} = 1.31$ ($SE = .26$), 95% confidence interval [.79, 1.83], $t(201) = 4.95$, $p < .001$, $d = .70$.

Gender Phenotypicity. As predicted, we found that the reckless risk-taker image was rated as significantly more masculine

(relative to feminine) than the responsible risk-taker image, $M_{diff} = 3.78$ ($SE = .30$), 95% confidence interval [3.20, 4.36], $t(197) = 12.79$, $p < .001$, $d = 1.81$ (see Table 4). As predicted, we found that the antiresponsible risk-taker image was rated as significantly more masculine (relative to feminine; $M = 5.93$, $SD = 2.34$) than the antireckless risk-taker image ($M = 3.64$, $SD = 2.32$), $M_{diff} = 2.29$ ($SE = .33$), 95% confidence interval [1.64, 2.93], $t(201) = 6.99$, $p < .001$, $d = .98$.

Discussion

These results suggest that people tend to envision reckless risk-takers as more stereotypically Black (and masculine) and less White (and feminine) than responsible risk-takers. This was evidenced in participants' trait attributions as well as phenotypic perceptions. Consistent with the findings in the previous study, we found strong evidence that risk-taker prototypes are racialized in the traits imagined for each role (Study 2) as well as the traits attributed to and the phenotype perceptions of the images produced for each risk-taker type (Study 3). Both trait and visual representations of risk-takers differed in their racial and gender associations, suggesting race and gender to be relevant in representations of risk-takers.

Study 4

We have found that people attribute traits (Studies 2 and 3) and envision facial features (Study 3) of the reckless risk-taker

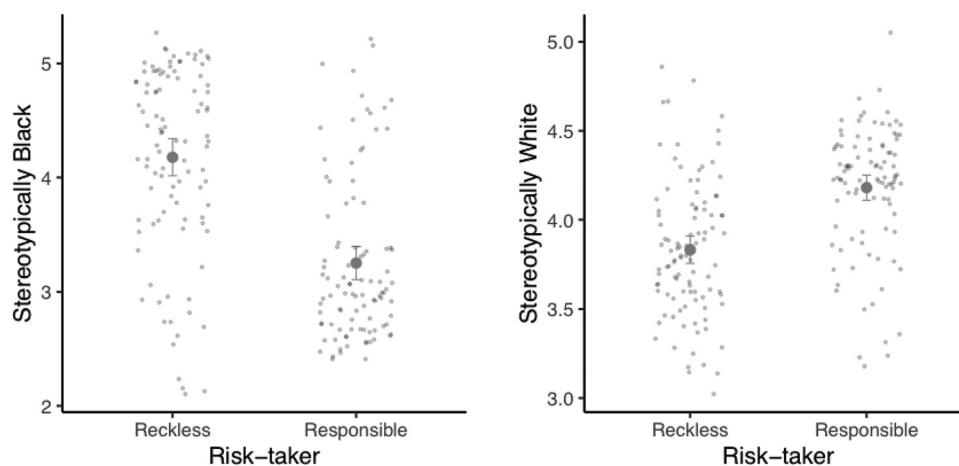
Table 4
Means and Standard Deviations of Ratings of Risk-Taker Images

Participant responses	Reckless risk-taker		Responsible risk-taker	
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)
Phenotypic Blackness (relative to Whiteness)	6.22	(2.21)	4.81	(1.62)
Phenotypic Masculinity (relative to Femininity)	7.48	(1.89)	3.69	(2.27)
Trait Blackness	4.18	(0.82)	3.25	(0.72)
Trait Whiteness	3.83	(0.38)	4.18	(0.35)
Trait masculinity	4.07	(0.36)	3.45	(0.46)
Trait femininity	3.43	(0.54)	4.54	(0.71)

Note. % indicates the percentage of participants within the risk-taker condition that nominated the corresponding trait as most representative. *M* indicates the stereotypic Blackness and Whiteness mean scores of the listed trait.

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Figure 6
Trait Attributions of Racial Stereotypicality



Note. Individual responses, means, and 95% CIs (error bars) of the trait attributions.

prototype as Blacker than the responsible risk-taker prototype. Given that these risk-taker prototypes differ in racial stereotype content, they may be related to consequential kinds of social disparities and racial discrimination. For example, financial disparities in the United States exist based on race, such that Black Americans own less wealth and financial market share than White Americans (e.g., Pfeffer et al., 2013). To better understand the psychological processes that may contribute to such disparities, we examined whether racialized risk-taker prototypes facilitate financial discrimination.

In the context of making investment decisions, we examined whether people would financially discriminate against an individual who resembles the visual prototype of a reckless risk-taker in favor of someone who resembles a responsible risk-taker, in a context where people are financially motivated to maximize benefit and minimize loss. We tested whether people would differentially entrust their money to ostensible investors. The presented visualizations of the investors were the collective mental images of reckless risk-takers and responsible risk-takers constructed in Study 3 (from the reverse correlation task). Recall that these images were rated as having markedly racialized phenotypes. After making initial reckless-responsible ratings of the investors, we endowed participants with \$.25 to allocate between two investors that could result in a payout ranging from tripling their investment to complete loss. This payout ostensibly depended upon how well participants allocated their investments to previously successful investors, providing only investors' visualized facial images to make their decision (the reckless and responsible risk-taker labels were concealed; participants only had the images on which to base their decision). Participants were also told that the more they allocate money to an investor, the more bonus pay the investor will receive. Given that we did not provide any relevant information on how well the visualized investors performed, the rational decision would be to allocate the investment evenly between investors to maximize the return. Moreover, to fulfill goals to be or appear egalitarian, participants should have been motivated to allocate evenly so each investor is paid equally. However, if participants

believed they could make more money by investing in one investor more than the other, participants' self-interest would have been in opposition to motivations of diversifying financial risk or social egalitarianism.

We had three preregistered hypotheses. We predicted the reckless (vs. responsible) risk-taker image would be allocated less money to be invested (H1). As a manipulation check, we predicted the reckless (vs. responsible) risk-taker would be rated as more reckless/less responsible (H2). Further, we predicted the effect of risk-taker image on investment allocations would be mediated by reckless-responsible perceptions (upon the advice of reviewers, this is reported in the supplement because it was a peripheral hypothesis; H3). See the OSF link for our preregistered study: https://osf.io/jyhw9/?view_only=5c47b1f7f483493cbfffd89dc1d8bb84.

Method

Design and Participants

In a within-subjects design, participants reported their ratings and investment allocations to both the responsible and the reckless risk-taker facial images (presented in a randomized order). A total sample of 250 MTurk workers participated in an online study in exchange for \$.50. Given this within-subjects design (two-tailed; $\alpha = .05$), we needed approximately 199 participants to have adequate power (.80) to detect a small effect ($d = .20$; G*Power software; Faul et al., 2009). We used Qualtrics to conduct our study and sampled the MTurk population using TurkPrime sampling services. The sample (121 women, 129 men, two transgender individuals, and two nonbinary individuals [gender categories were not mutually exclusive]) consisted of mostly White people (211 White, 15 Black, 10 Latino, 21 Asian, two Middle Eastern, and four multiracial) and their ages ranged from 21 to 78 ($M = 41.62$, $SD = 13.05$). The sample was well-educated (64% indicated having a bachelor's degree or higher) and politically moderate ($M = 3.67$, $SD = 1.74$; the same 7-point scale used previously).

Procedure and Material

Participants were told that they would review two people who ostensibly participated in a past study. They were told that these previous participants were asked to examine an array of financial stock that varied in potential benefit and risk and then select and financially invest in the stock they thought was most likely to return the greatest profits. Consistent with previous cover story approaches to evaluating classification images (e.g., Brown-Iannuzzi et al., 2017), participants were told that some of these “investors” were more and some less successful in their selections. Participants were next shown two (supposedly) randomly selected investors to rate to what extent these investors appear reckless to responsible. These two images were actually the mental images constructed of reckless and responsible risk-takers in Study 3. To explain why the investor images looked “fuzzy,” we provided a cover story that the researchers obscured the images of the investors’ privacy. We then provided participants with an opportunity to earn bonus pay. We allotted participants with a \$.25 endowment that they could invest, with potential outcomes ranging from tripling their endowment to losing it all. Participants were tasked to make their investment by allocating their \$.25 endowment between the presented investors. Participants were informed that the payout of their investment depended on how well they allocated the money between the investors who were successful in their selections. We also told them that more money allocated to each investor will result in more bonus pay for them. This means the decision participants made involved a stake for themselves as well as for the target they were making a decision about. Upon completion of their ratings, allocation, and finally some exploratory measures, participants answered a few demographics items and then were debriefed.

We measured investment allocations by instructing participants to enter the number of cents from their endowment (\$0 to \$.25) in the textboxes adjacent to the pictured investors (presentation order randomized). Allocations were required to total \$.25. We measured the extent to which the two pictured investors were perceived as reckless/reckless with the following items using 9-point semantic differential scales: (1) *reckless-cautious*, (2) *irresponsible-responsible*, (3) *careless-careful*, (4) *thoughtless-thoughtful*, (5) *inconsiderate-considerate*, and (6) *imprudent-prudent*. The presentation order of the traits was randomized. Reckless-responsible perceptions were scored by averaging the items together (McDonald’s $\omega = .97$), such that higher scores reflect greater perceived responsibility (and lower recklessness). For exploratory purposes, we measured participants’ levels of financial investment propensity, confidence, and knowledge. We report the details and results of the exploratory measures in the [online supplemental materials](#).

Results

Confirming the effectiveness of the manipulation, the mental visualization of the responsible risk-taker was perceived as more responsible/less reckless ($M = 6.19$, $SD = 1.61$) than the visualization of the reckless risk-taker ($M = 4.04$, $SD = 1.67$), $M_{diff} = 2.15$ ($SE = .14$), 95% confidence interval [1.88, 2.43], $t(248) = 15.34$, $p < .001$, $d = 1.31$. As predicted, we found that participants allocated significantly more money (cents) to the mental visualization of the responsible risk-taker ($M = 15.71$, $SD = 6.23$) than

the visualization to the reckless risk-taker ($M = 9.29$, $SD = 6.23$), $M_{diff} = 6.42$ ($SE = .79$), 95% confidence interval [4.86, 7.97], $t(249) = 8.15$, $p < .001$, $d = 1.03$. Put differently, participants allocated 69% more money to the mental visualization of the responsible (vs. reckless) risk-taker, which was racialized as relatively White- (vs. Black-) looking in the previous study.

Discussion

When the monetary interests of the participant and the target were at stake, we found clear evidence that participants were more willing to invest their money with someone who looked like a more phenotypically White, responsible risk-taker than with someone who looked like a more phenotypically Black, reckless risk-taker. Because we did not provide any relevant information to make investment decisions (participants were only provided the grainy reverse correlation images from Study 3 to make their decision), the rational response would have been to allocate their money evenly across investors to increase the chances of getting more money and decrease potential loss. However, given that discrimination was observed, the racially suffused appearance of the targets was potentially considered useful information in making allocation decisions. Given that the sample was composed primarily of White people, our findings are consistent with the tendency people have to be more willing to take risks with ingroup (vs. outgroup) members as a function of trust (Cruwys et al., 2021). These findings indicate that people are willing to discriminate against others who visually fit racially stereotypic notions of recklessness (in favor of those who fit stereotypic notions of responsibility) when their money is at stake, even though this decision would ostensibly disadvantage the bonus pay of the participant. If reckless (vs. responsible) risk-takers are more likely to be associated with Blackness (as we found in Studies 2 and 3), the findings of this study raise the possibility that reckless risk-taker stereotype content may contribute to psychological processes that facilitate discrimination against Black people in investment situations.

Study 5

Our findings thus far have established an association between the concept of reckless risk-taking and Black stereotype content, as well as responsible risk-taking and White stereotype content. However, given the methodological approaches taken, there are some possible explanations for these associations that it would be helpful to rule out. The first possibility is that the stereotypes attributed to the reckless versus responsible risk-takers are based simply on valence (i.e., halo or horned effects). Although the Study 2 mediation analyses suggest that trait valence is only part of the story, more evidence on this issue would be valuable. The second possibility is that there may simply be semantic overlap in the stereotypes of Black Americans and reckless risk-takers, such that reckless risk-taking may not have been causally activating cognitive associations with Blackness, but merely occupying similar semantic space with Black stereotypes.

To address these concerns, we examined extrapolative stereotyping (i.e., using racial stereotypes to make guesses about others’ unknown characteristics; Bruner, 1957; Craig & Bodenhausen, 2018). By demonstrating that participants would engage in extrapolative racial stereotyping of reckless risk-takers in positive and

neutral ways (e.g., viewing the target as likely to be a good dancer or post social media content about basketball), we strengthened the evidence that our results involve the application of Black stereotypes broadly, rather than mere reliance on negative valence when making inferences about reckless risk-takers. In this study, participants reviewed target information indicative of someone who either takes risks recklessly or responsibly (via their ostensible Twitter profile), without any specification of race. Participants then indicated how likely the target would be to post tweets that convey stereotypically positive Black or White content suggestive of user race and rated the target in terms of positive and neutral racially stereotypical traits that are not directly related to risk-taking.⁵

We had four primary hypotheses. We predicted that participants would indicate that the Twitter user with the reckless (vs. responsible) risk-taker profile would be more likely to post stereotypically Black tweets (H1) and be less likely to post stereotypically White tweets (H2). Third, we predicted that participants would apply the positive/neutral Black stereotypic traits more to the reckless (vs. responsible) risk-taker target (H3). Last, we expected that participants would apply the positive/neutral White stereotype traits more to the responsible (vs. reckless) risk-taker target (H4).

Method

Design and Participants

This experiment involved a single-factor (Twitter profile: reckless vs. responsible), between-subjects design. A total sample of 199 MTurk workers participated in an online study in exchange for \$.75. Given the between-subjects design (two-tailed; $\alpha = .05$), we needed approximately 200 participants to have adequate power (.80) to detect a medium effect ($d = .40$; G*Power software; Faul et al., 2009). We used Qualtrics to conduct our study and sampled the MTurk population using TurkPrime sampling services. The sample (102 women, 98 men, one transgender individual [gender categories were not mutually exclusive]) consisted of mostly White people (160 White, 15 Black, 10 Latino, 15 Asian, and two multiracial) and their ages ranged from 19 to 77 ($M = 41.48$, $SD = 13.17$). The sample was well-educated (62% indicated having a bachelor's degree or higher) and politically moderate ($M = 3.69$, $SD = 1.81$; 7-point scale used previously).

Procedure and Material

Participants were told that this was a study about how people perceive social media content. Participants were then told they would be shown a Twitter profile ostensibly from a real person. Participants were randomly assigned to review one of two Twitter profiles (see Figure 7): the content of these profiles indicated that the target user was either a person who takes risks recklessly or responsibly. The message content embedded in the reckless risk-taker profile said, "LIFE IS RISK. I choose to live RECKLESSLY and take chances to get what I want, whatever the consequences! I do not obsess over the potential downsides." The responsible risk-taker profile said, "LIFE IS RISK. I manage it RESPONSIBLY and take chances for the things I desire only when it is reasonable! I think carefully through the potential downsides." To obscure the race and gender of the Twitter user, we used initials for the user's name and Twitter's default image (an anonymous gray avatar) for

the user's profile image. We also included a background image of four white dice appearing to roll against a black backdrop (constant across conditions); we pretested this image, and it was rated as race and valence neutral (reported in the Pretest of Materials section of the [online supplemental materials](#)). Aside from conveying the profile location (Chicago, IL, for both conditions), no other profile information was presented. Unlike some of the prior studies, there were no facial stimuli involved in this study, and participants were not asked to racially categorize any of the stimuli provided.

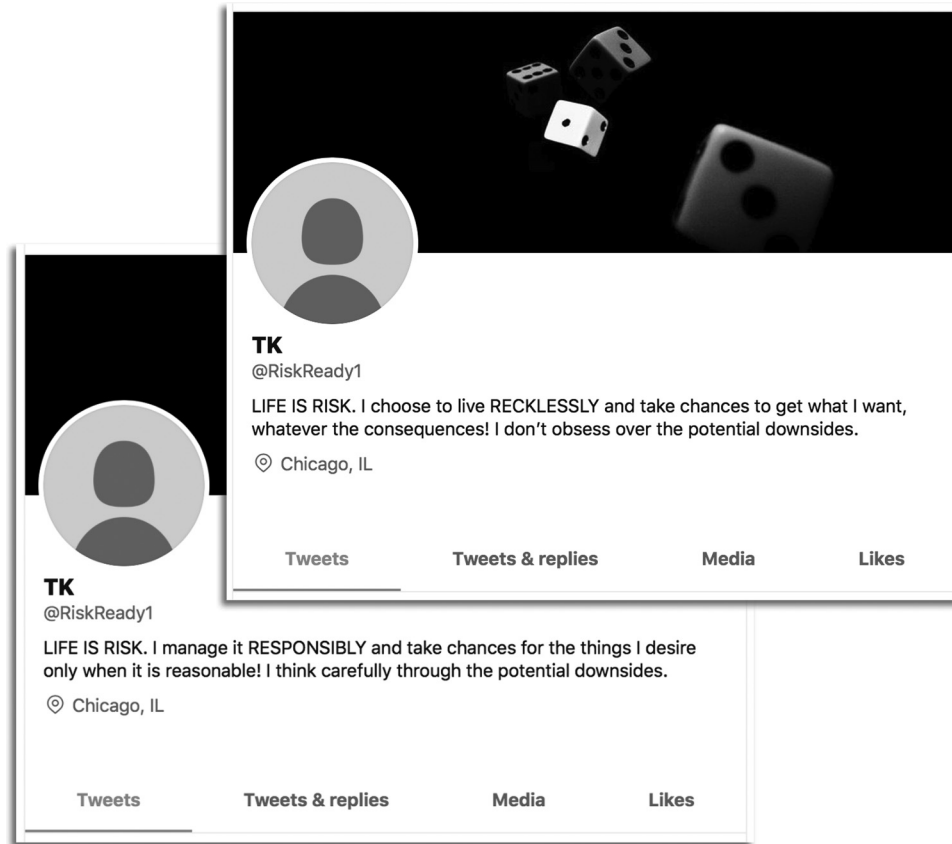
After reviewing the profile, participants were asked to describe their initial impressions of the Twitter user in a few sentences to engage with the presented information more deeply. As a check of the manipulation, participants were then asked to rate how reckless/cautious, irresponsible/responsible, careless/careful, and thoughtless/thoughtful the target appeared using a 9-point semantic differential scale. Reckless/responsible perceptions were scored by averaging the items (McDonald's $\omega = .98$), with greater scores indicating more responsible (and less reckless) perceptions.

Participants were then asked to indicate how likely it was that the target would post each of a set of presented tweets, using an 11-point scale from *not at all likely* (1) to *very likely* (11). Participants were presented with 10 different tweets (with user information redacted) one at a time to rate; half of the tweets involved stereotypically Black content and the other half involved stereotypically White content. Racial implications of the tweets were established via pretesting; the stereotypically Black set of tweets differed strongly from the stereotypically White set of tweets in terms of racial connotations ($d = 3.09$, $p < .001$, $N = 99$) but did not differ in perceived valence ($d = .08$, $p = .390$, $N = 100$); further, both valence means were well above the midpoint (5) of scale (means ranging 7.63 to 7.75), indicating that the tweets across conditions were perceived rather positively, on average (see the [online supplemental materials](#)). Sample tweets that were stereotypically Black included, "I was shooting hoops all weekend with my boys," "Respect for the true pioneers of hip hop," and "My momma's mac and cheese is top tier, no cap." Stereotypically White Tweets included, "What a sweet day for golfing on the greens," "Let's get ready to rock and roll," and "Have you guys ever had kombucha? It's so life changing." The presentation order of the stereotypically Black and White tweets was randomized, with the individual tweets within each racial categorical randomized. Responses to the stereotypically Black (McDonald's $\omega = .84$) and White (McDonald's $\omega = .68$) Tweets were averaged, with higher scores indicating a greater perceived likelihood that the target would post the tweet.

Participants were then asked to indicate the degree to which the presented racially stereotypical attributes likely applied to the target, from 0 = *Not at all* to 100 = *Extremely*. Black stereotypic traits included the following (averaged): streetwise, acts cool, can dance, and likes hip hop (McDonald's $\omega = .84$). White stereotypic traits included the following (averaged): wealthy, intelligent, educated, and successful (McDonald's $\omega = .93$). Higher scores indicated greater racial stereotype application of attributes. Stereotypic traits were taken from research on racial stereotype content (Cox &

⁵ For brevity, we report findings of an additional study that tested extrapolative racial stereotyping from risk-taker profiles (further supporting our hypotheses) in the [online supplemental materials](#).

Figure 7
Twitter Profiles of Risk-taker Prototypes



Note. The Twitter profiles used to manipulate the reckless risk-taker prototype (front) and the responsible risk-taker prototype (back).

Devine, 2015; Wittenbrink et al., 1997; Zou & Cheryan, 2017). Participants lastly answered demographics items and were debriefed.

Results

Confirming the effectiveness of the manipulation, we found that participants in the responsible risk-taker condition rated the target as substantially more responsible ($M = 7.05$, $SD = 1.97$) than did participants in the reckless risk-taker condition ($M = 1.74$, $SD = .88$), $M_{diff} = 5.31$ ($SE = .21$), 95% confidence interval [4.89, 5.73], $t(197) = 24.80$, $p < .001$, $d = 3.52$. Next, we examined our primary hypotheses. As anticipated, we found that participants who viewed the reckless risk-taker Twitter profile rated the target as significantly more likely to post stereotypically Black tweets ($M = 6.52$, $SD = 2.25$) than did those who reviewed the responsible risk-taker profile ($M = 4.90$, $SD = 2.47$), $M_{diff} = 1.62$ ($SE = .33$), 95% confidence interval [.96, 2.27], $t(197) = 4.83$, $p < .001$, $d = .69$. As expected, we found that participants who reviewed the responsible risk-taker Twitter profile rated the target as significantly more likely to post stereotypically White tweets ($M = 6.40$, $SD = 1.93$) than did those who reviewed the reckless risk-taker profile

($M = 5.38$, $SD = 2.07$), $M_{diff} = 1.02$ ($SE = .28$), 95% confidence interval [.46, 1.58], $t(197) = 3.58$, $p < .001$, $d = .51$.

We next examined the application of stereotypical attributes. As predicted, we found that participants in the reckless risk-taker condition rated the target as likely having significantly more Black stereotypical traits ($M = 63.58$, $SD = 17.11$) than did those in the responsible condition ($M = 48.35$, $SD = 21.71$), $M_{diff} = 15.23$ ($SE = 2.76$), 95% confidence interval [9.78, 20.67], $t(197) = 5.51$, $p < .001$, $d = .78$. Also as predicted, we found that participants in the responsible risk-taker condition rated the target as likely having significantly more White stereotypical traits ($M = 65.47$, $SD = 20.54$) than did those in the reckless condition ($M = 41.67$, $SD = 18.19$), $M_{diff} = 23.80$ ($SE = 2.75$), 95% confidence interval [18.39, 29.22], $t(197) = 8.67$, $p < .001$, $d = 1.23$.

Discussion

When guessing about an individual's unknown characteristics, we found compelling evidence that viewing the reckless (vs. responsible) risk-taking prototype spontaneously activated Black (vs. White) stereotype content broadly, across the valence spectrum. After reviewing Twitter profiles indicative of a user who is a reckless (vs. responsible) risk-taker, participants predicted that the

target would be more likely to post stereotypically Black tweets that are positive in valence and have more stereotypic Black qualities that are positive or neutral. These results provide evidence that a profile of a reckless (vs. responsible) risk-taker solicits the application of broad Black stereotype content spontaneously, in the absence of any explicit information about the target's race.

General Discussion

Whether deciding to stand up to a bully, request a promotion, invest in a speculative stock, gamble on horse races, light a cigarette, or donate a kidney, the option to take risks is one people face in making everyday decisions. Although much is known about how people come to make risky decisions, we know very little about how people make sense of the risk-takers themselves. Understanding which groups in society are viewed as the risk-takers is an important psychological question for person perception, stereotyping and prejudice, and decision-making research. The current research is the first known attempt to specifically examine perceptions and prototypes of risk-takers and whether these prototypes evoke racial connotations.

We posited that perceptions and mental representations of risk-takers would evoke racial connotations. Given the negative, masculine, and impulsive stereotypes of Black Americans (Eberhardt et al., 2004; Galinsky et al., 2013; Goff, Eberhardt et al., 2008; Goff, Thomas et al., 2008; Johnson et al., 2008; Johnson et al., 2012; Williams et al., 2016), we predicted that perceptions and attributes of risk-takers—particularly reckless ones—would be skewed toward stereotypical representations of Black people over that of White people. Results of Study 1 confirmed this hypothesis at the broadest level of risk, such participants tended to rate Black men as being more risk-taking and more masculine than White men. In Study 2, we found robust evidence of racialization of the trait representations of more specific prototypes of risk-taking, such that participants nominated stereotypically Black traits for reckless risk-takers and stereotypically White traits for responsible risk-takers. In Study 3, we found convergent evidence that people racialized visual representations of risk-takers, such that participants constructed facial images of reckless risk-takers that were attributed traits and perceived as more stereotypically Black (and masculine) and less stereotypically White (and feminine) than the facial images constructed of responsible risk-takers. In Study 4, we found people are willing to financially discriminate based on a target's visual appearance matching racialized prototypes of reckless versus responsible risk-takers. In Study 5, we provided more direct evidence that the reckless (vs. responsible) risk-taker prototype elicits application of Black stereotypes broadly, beyond negative valence per se.

We acknowledge that valence is a relevant factor in distinguishing risk-taking prototypes and racial stereotypes. Even though valence is an important and interesting factor to consider when studying how people think about risk-taking, the observed differences in meaning attributed to risk-taker prototypes does not appear to be only explained by valence. This is indicated by the initial evidence presented with mediational modeling in Study 2 and the effects observed with positive but stereotypical tweets in Study 5. Although racial stereotypes are generally confounded with valence, such that dominant groups are generally viewed more favorably than subordinated groups, there are clear and

specific themes described within these broad evaluative tendencies. The present findings indicate that risk-taking propensities constitute one such descriptive theme.

Consistent with the argument made by Cox and Devine (2015), our findings—that prototypes of risk-taking can activate racial stereotypes—provide a compelling case to further consider the study of attributes that activate social group associations. Our findings suggest that understanding the effects of risk-taking prototypes on assumptions about perceived race can be revealing and meaningful in situations when risk-taking is presented absent of clear indications of race (e.g., when attempting to identify suspects of crimes involving risky behavior, such as distribution of illicit substances, reckless driving, or embezzlement).

It is worth noting that even though we are only examining the content of stereotypic associations (and not the origin or accuracy of such associations), there is evidence to suggest that Black people may be less likely than White men to engage with dangerous forms of risk (e.g., Finucane et al., 2000). This would make such Black-recklessness associations potentially contradictory with who is actually more willing to take reckless risks.

Our research is the first to consider risk-taking as an object of racialized perception and a component of stereotype content. Our findings offer a new way to think about how people understand, feel, and react toward others. Consideration of risk opens possibilities to integrate risk and risk-taking into existing social perception and stereotyping frameworks. For example, the “big two” dimensions of social perception and stereotype content research are agency and communion (Abele et al., 2016; Fiske, 2018). The agency dimension—which comprises the ability (competence) and motivation (assertiveness) to pursue goals—directly relates to the concept of risk-taking. The distinction between reckless and responsible risk-taking could potentially reflect assertive risk behavior at low (reckless) and high (responsible) levels of competence. Future research should consider how perceptions of risk-taking and risk-aversion operate with other social perception dimensions (e.g., communion) as well as whether risk-taking content is contained in stereotypes of other social groups (e.g., based on age, class, occupation).

Taken together, our findings suggest that perceptions and mental representations of risk-takers connote racial associations, such that observers tend to (a) perceive Black people as more willing to take risks than White people, (b) associate reckless risk-takers with stereotypically Black traits, including phenotypic Black appearance, and also extending to positive as well as negative stereotypes (relative to responsible risk-takers), and lastly (c) such associations can have costly consequences.

Limitations and Future Directions

It is also worth considering the limitations of the current research as well as future directions. In Study 1, we defined masculinity in terms of strength and aggression. Given the negative connotations of aggression, future work will be helpful for ascertaining whether stereotypical associations between Blackness and masculinity (Johnson et al., 2012) also emerge if masculinity is described in strictly positive terms. Agentic perceptions of masculinity—assertiveness, strength, and aggression—have long characterized masculinity in the United States (Eagly et al., 2020), which is why we focused on these aspects of masculinity. However,

given that the attribute “aggressive” was well-represented in the reckless risk-taking traits selected from Studies 2 and 3, the definition of masculinity we provided in Study 1 may have contributed to a relationship between masculinity and (reckless) risk-taking. We addressed this concern by, in the subsequent studies, focusing our examination on two specific prototypes of risk-taking (i.e., reckless and responsible) rather than risk-taking broadly construed.

Considering construct validity, it is plausible that participants construed responsible risk-taking as being less risky than reckless risk-taking. Indeed, we theorized that the levels of risk-related deliberation and risk intensity are intuitively related. Although we find evidence of these dual prototypes of risk-takers to be meaningful in evoking racial associations, it is certainly likely that there are other relevant prototype configurations and dimensions to consider for racial and other social associations in the risk domain. Such alternatives involve deliberately taking extremely high risks (such as willingness to sacrifice one’s safety or resources for another person or cause) or thoughtless low-risk behavior (such as doing relatively mundane tasks). Other dimensions potentially relevant in the social perception of risk-takers could involve the altruistic or selfish aims of the actor, the involvement of short- versus long-term self-regulation, the outcome resulting from the risk taken, or individual characteristics of the perceiver.

The context in which the risks are taken could also be relevant. The proposed risk-taking prototypes may partially reflect different stereotypically racialized risk-taking domains. For example, participants may see White people as more likely to take risks in stereotypically White domains (e.g., investing, poker, or extreme sports), while seeing Black people as more likely to take risks in stereotypically Black domains (e.g., slot machines, lottery, or substance misuse). This area is ripe for more nuance and exhaustive classification of risk-taker perceptions and their relations with various social groups. The exploration of the social perceptions of risk-taking as a multidimensional construct is worthy of future inquiry.

On a more specific note, new research that appeared after Study 3 was conducted has raised concerns regarding an increased type I error rate from the reverse correlation method using group classification images in a two-phase rating process (see Cone et al., 2021). However, there are several factors that help alleviate these concerns in the current studies. The first is that we observed a very large effect of the composite images on perceived risk-taking ($d = 1.31$) in a very well-powered design (99% power to detect a $d \geq .27$) for the additional sample (Study 4), which suggests that even if we adopted a much more conservative alpha level (e.g., $\alpha = .0005$) to address the inflated type I error rate, differences would still be statistically significant (exact $p = 8.76 \times 10^{-38}$). Second, these recklessness ratings serve as evidence that the images we used were capturing facial cues associated with perceived risk-taking, as intended. The key differences in racial perceptions (Study 3) and reckless/responsible perceptions (Study 4) that we observed were large ($ds > .70$), highly statistically significant ($ps < .001$), and statistically well-powered, but as with all findings, replication is necessary. In this case, future studies relying on individual-level classification images will be particularly useful.

Although we found evidence that people were willing to differentially entrust their investment with targets depicted using the racialized images, this is not direct evidence of racial

discrimination. It is possible that other differences between the images were responsible for participants’ disparate treatment. One way to approach this concern would be to experimentally manipulate target race and test whether people invest less in the Black target relative to the White target and whether this hesitancy is mediated by perceptions of reckless riskiness. However, such a test would be likely complicated by social desirability concerns (e.g., Janus, 2010), especially in this time of increased attention to issues of racial injustice. A successful design would need to get around this issue.

Our samples consisted of a majority of White MTurk workers residing in the United States. It is unclear whether we should expect such processes to extend to other racial groups or to people outside of the United States. It may be the case that race-risk associations are culture-specific and are held and used by White Americans as a way to rationalize or justify specific patterns of racial inequality in the U.S. context, but it is also possible these associations are recognized by other groups, potentially including Black Americans, because stereotype content can be acquired implicitly, and we did not exclude people of color from analyses. Future research should determine whether our findings generalize to other populations and cultures.

Practical Implications

The reported research not only has theoretical significance for person perception, stereotyping, and decision-making but also highlights a potential psychological phenomenon that could negatively impact people’s expectations for, interactions with, and treatment of Black people. Given the ubiquitous nature of risk perception processes in everyday life, our findings may illuminate a process that potentially contributes to and exacerbates disparate racial discrimination and inequality. Specifically, risk assessment of social groups is potentially impactful in health care, lending, and policing. For instance, physicians have tended to characterize Black (vs. White) patients as less likely to adhere to provider recommendations and more likely to abuse drugs, both behaviors that carry health risks (Khosla et al., 2018; van Ryn & Burke, 2000). Such risk perceptions could facilitate poorer quality of care. Owing to perceptions of nonadherence, medical providers have been found less likely to recommend bypass surgery for Black patients than for White patients (van Ryn et al., 2006). These are just a few examples in which racially based biases in risk assessments could have life or death consequences in health care.

Stereotypes about risk-taking might also contribute to systemic inequalities in a variety of financial domains. U.S. mortgage lenders have been found to charge borrowers in predominantly Black neighborhoods contract rates substantially above competitive market rates even though the default rates did not differ by borrower race or ethnicity (Kau et al., 2012). Further, Black borrowers were especially targeted during the 2008 subprime mortgage crisis and received lending rates far above the market for White borrowers (Bocian et al., 2008; Faber, 2013; Mayer & Pence, 2008). Students graduating from Historical Black Colleges and Universities were found to be charged substantially higher interest rates on borrowing student loans than students from predominantly White institutions (Student Borrower Protection Center, 2020).

Consideration of how Black people can be stereotyped as reckless risk-takers may also shed more light on the pernicious

processes that promote racial bias in policing. An outcry for racial justice was triggered in response to the brutal murders of unarmed Black Americans—George Floyd and Breonna Taylor—at the hands of police officers. According to researchers, Black men face approximately a 1 in 1,000 chance of being killed by the police in the United States, a rate twice that of their White male counterparts, with Black women also disproportionately at risk (Edwards et al., 2019). Black men were, by far, found to be the highest risk group for police-cause fatality, such that police violence is among the leading causes of death for young Black men in the United States (Edwards et al., 2019). Such disparities were theorized to manifest from an array of possible psychological biases among systemic influences (e.g., Kahn & Martin, 2020; Swencionis & Goff, 2017). To answer the pleas to focus on and eliminate police violence perpetrated against communities of color, more research is needed on the psychology of racial bias in policing to better understand and effectively address this pressing and urgent issue (Goff & Kahn, 2012; Knox & Mummolo, 2020). Given that use of force involves making decisions under risk, Black stereotype content that contains reckless riskiness may distort officer perceptions and facilitate discrimination.

Considering our results, we suggest that it is possible that medical providers, financial lenders, and police officers might use race as a proxy for estimating risk, presumably as a way to rationalize or justify discrimination. Even the phrase “at-risk,” commonly used to describe Black Americans across various domains and statistical disparities, might signal stigmatizing associations between Blackness and riskiness. Future research should look at whether professionals in these industries exhibit race-risk biases.

Conclusion

Although much is known about how people come to understand and engage in risky decisions, the current research is the first known attempt to investigate how people make social sense of the risk-takers themselves, particularly concerning race. We asked who in society is viewed as the risk-takers. We shed light on a novel racial bias in the social perception and stereotyping of risk-takers. Our findings suggest that mental representations of risk-takers evoke racial connotations, such that stereotypes about and perceptions of Black people are associated with notions of riskiness and recklessness. We further found that the use of these mental representations of risk-takers in financial decisions can have costly consequences. Results provided a foundation for informing theory and synthesizing research on person perception, stereotyping and prejudice, and decision-making. Implications of the current findings are potentially relevant to research and real-world situations in which risk assessments of people are common and consequential.

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