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Social cognition and African American men: The roles of perceived discrimination and experimenter race on task performance

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ABSTRACT

The Social Cognition Psychometric Evaluation (SCOPE) study consists of a battery of eight tasks selected to measure social-cognitive deficits in individuals with schizophrenia. The battery is currently in a multisite validation process. While the SCOPE study collects basic demographic data, more nuanced race-related factors might artificially inflate cross-cultural differences in social cognition. As an initial step, we investigated whether race, independent of mental illness status, affects performance on the SCOPE battery. Thus, we examined the effects of perceived discrimination and experimenter race on the performance of 51 non-clinical African American men on the SCOPE battery. Results revealed that these factors impacted social cognitive task performance. Specifically, participants performed better on a skills-based task factor in the presence of Black experimenters, and frequency of perceived racism predicted increased perception of hostility in negative interpersonal situations with accidental causes. Thus, race-related factors are important to identify and explore in the measurement of social cognition in African Americans.

1. Introduction

The Social Cognition Psychometric Evaluation (SCOPE) study was launched in 2012 so as to "achieve a consensus on the crucial social cognitive domains in schizophrenia, and to evaluate the psychometric properties of existing measures and their suitability for clinical trials" (Pinkham et al., 2014, p. 814). These existing measures can be categorized into two groups: skills-based tasks and bias-oriented tasks (Penn and Roberts, 2013). Skills-based tasks require conscious and effortful cognitive processing, have clear correct and incorrect answers, and require evaluation of social situations that involve other people. In contrast, bias-oriented tasks use swift and automatic processing, do not have correct answers, and require individuals to consider how a situation may affect them personally. Pinkham et al. (2016) found that in the initial iteration of the SCOPE battery, individuals with schizophrenia performed worse than healthy controls on each skills-based measure, reported higher perceived hostility on a bias-oriented task, and rated faces as less trustworthy. Additionally, all the skills-based tasks in the SCOPE battery were correlated with a range of functional outcomes including social skills and community living skills.

One unaddressed issue in the SCOPE study is the potential impact of ethnocultural factors. A recent study found that African Americans (both healthy controls and those with schizophrenia) performed worse than Caucasians on two skills-based SCOPE tasks that measure emotion identification and theory of mind (Pinkham et al., 2017). In addition, healthy African American controls performed worse than Caucasians on a third skills-based task examining theory of mind (Pinkham et al., 2017). Because the stimuli used in these tasks were largely of Caucasian individuals, the authors attributed these racial discrepancies to the other-race effect, which posits that individuals are better at recognizing faces and emotions in same-race over other-race stimuli (Elfenbein and Ambady, 2002; Pinkham et al., 2008). These findings on social cognition parallel a wealth of research that demonstrates that, regardless of latent ability, ethnocultural and contextual factors can diminish the neurocognitive performance of healthy African Americans (Marx and Goff, 2005; Richeson et al., 2005; Thames et al., 2013).

Guidelines for culturally competent assessment caution against "attribution errors," in which measures emphasize internal causes (e.g., mental illness) of a problem over environmental and sociocultural factors (e.g., discrimination and oppression; Sue and Sue, 2016). In this case, the SCOPE battery runs the risk of attributing racial differences in SCOPE performance to internal causes (inherently worse social

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cognition in African Americans), rather than sociocultural factors (e.g., perceived racism). Thus, the purpose of the current study was to examine whether race, independently of mental illness, might affect performance on the SCOPE battery. Consequently, we used a sample of healthy non-clinical African American individuals to explore whether the SCOPE tasks are potentially influenced by two race-related variables: perceived racism and experimenter race.

Perceived racism, the subjective experience of racial discrimination, (Schmitt et al., 2014), has been associated with increased anxiety (Chao et al., 2012; Rucker et al., 2010; Soto et al., 2011) and anger (Broudy et al., 2007; Chao et al., 2012) in healthy controls. Additionally, both anxiety and anger lead to a heightened perception of threat in non-clinical populations (Bar-Haim et al., 2007; Barazzone and Davey, 2009). Thus, perceived racism may be associated with greater hostility and less trust in bias-oriented tasks. Indeed, research has demonstrated that perceived racism is associated with perception of prejudice in routine social interactions in healthy controls (Bennett et al., 2004; Broudy et al., 2007). Additionally, perceived racism has been shown to take both an acute and chronic toll on neurocognition in healthy controls (Barnes et al., 2012; Salvatore and Shelton, 2007; Thames et al., 2013), and may indirectly affect skills-based task performance through neurocognition.

Experimenter race may be another contextual variable that impacts task performance of healthy African Americans. Some studies suggest that non-clinical African Americans perform worse on neurocognitive tasks when their experimenter is Caucasian rather than African American (Marx and Goff, 2005; Richeson et al., 2005). This effect is partially attributed to the depletion of cognitive resources by anxiety efforts of self-regulation, and awareness of negative racial stereotypes (Richeson et al., 2005(Marx and Goff, 2005). Additionally, some research has indicated that experimenter race and perceived racism may interact to affect task performance. Specifically, Thames et al. (2013) found that healthy African American individuals with high levels of perceived racism performed significantly worse on memory tasks when tested by White experimenters than when tested by same-race experimenters. Thus, experimenter race may compound the effects of perceived racism on task performance.

Taken together, these findings indicate that perceived racism and experimenter race might cause non-clinical African American individuals to feel increased anxiety and anger, which in turn may lead to increased threat perception and impaired neurocognitive capacity. Additionally, perceived racism may interact with experimenter race to augment these psychological effects. For bias-oriented tasks, the interaction may cause non-clinical African American men to evaluate personally relevant situations as more dangerous. For skills-based tasks, the interaction may indirectly affect performance through impaired neurocognition. In turn, these variables may inflate interracial differences in social cognition between African Americans and Caucasians with schizophrenia.

We predicted that social cognitive biases and skills deficits would be most pronounced when non-clinical African American participants had a Non-Black experimenter or when they had higher levels of perceived racism. Additionally, we predicted that experimenter race and perceived racism would interact to affect performance on social cognitive tasks, such that the association between experimenter race and social cognitive biases or skills-based tasks deficits would be stronger for participants with higher perceived racism. Lastly, we predicted that neurocognition would mediate the relationship between race-related variables and a skills factor, given the association between skills-based tasks and neurocognition (Penn and Roberts, 2013). Specifically, we predicted that a Non-Black experimenter, higher levels of perceived racism, or their interaction would result in impaired neurocognition and consequently, worse performance on a skills factor.

2. Method

2.1. Recruitment and participants

Fifty-one non-clinical African American men were recruited from college campuses and the community. About half the sample was comprised of undergraduate students (51%, $N = 26$), while the other half consisted of graduate students, post-doctoral scholars, and community members (49%, $N = 25$). Only men were recruited for two primary reasons. First, we wanted to control for any potential gender effects, as research has demonstrated that African American men report perceived racism more frequently than African American women (Banks et al., 2006; Borrell et al., 2006). Second, we opted to recruit men rather than women because rates of schizophrenia are higher in men (Aleman et al., 2003) meaning that our results will be applicable to a greater swathe of individuals in future studies involving populations with schizophrenia. Additionally, the sample was limited to men aged 18–30 (M = 23.48 years), in order to match the age of undergraduate research assistants. Recruitment materials were initially titled, “Seeking African American men for a research study on social cognition.” However, due to slow pace of recruitment the wording was changed to “Help Us Give African American Men a Voice!” and the study was described to be about “how people process social information.” Additionally, if a potential participant reported a personal or familial history of autism, schizophrenia, or bipolar disorder, he was excluded from the study (a total of two individuals were ineligible for this reason). Current substance use was not assessed. The proportion of student versus community members did not differ significantly across experimental conditions, $X^2(1) = 1.07$, $p = 0.30$.

2.2. Measures

2.2.1. Daily Life Experiences Scale – frequency subscale

The Frequency Subscale of the Daily Life Experiences Scale (DLES; Harrell, 1997) is a self-report measure that assesses the frequency of 18 perceived microaggressions over the last year. The DLES has adequate psychometric properties (Harrell, 1997; Neblett and Carter, 2012), and the Frequency subscale had high internal consistency in the current study (Cronbach's $\alpha = 0.95$).

2.2.2. Skills-based social cognitive tasks

There were six skills-based tasks. Emotion perception was measured with the Penn Emotion Recognition Task (ER-40; Kohler et al., 2003) and the Bell-Lysaker Emotion Recognition Task (BLERT; Bryson et al., 1997). The ER-40 measures the ability to recognize four facial emotions or no emotion in 40 colored photos of faces presented on a computer and balanced for age, sex, and ethnicity. The BLERT features 21 ten-second video clips on a computer of the same Caucasian male actor performing a monologue while demonstrating one of six basic emotions or no emotion. Social perception, which involves the interpretation of social contexts and utilization of social knowledge, was measured with an abbreviated version of the Relationships Across Domains (RAD) task (Sergi et al., 2009). The RAD is a paper-and-pencil measure comprised of 15 vignettes of male-female dyads, in which participants answer yes/no questions that assess competence in relationship perception. Three tasks were used to measure theory of mind, the ability to infer the mental states of others: The Reading the Mind in the Eyes Task (Eyes Task; Baron-Cohen et al., 2001), the Hinting Task (Corcoran et al., 1995), and Part III of The Awareness of Social Inferences Task (TASIT; McDonald et al., 2003). The Eyes Task measures the ability of participants to make rapid judgments of mental states (e.g., flirtatious, pensive) in 36 Gy-scale photos of eye regions of Caucasian faces presented on a computer. The Hinting Task examines the ability to infer real meaning behind words in ten short vignettes each describing a dyadic social interaction that are read aloud by an experimenter. TASIT measures the ability to detect lies and sarcasm in 16 video clips of everyday

social interactions. The majority of tasks showed acceptable internal consistency (Cronbach's $\alpha = 0.61–0.72$), with the exception of the BLERT, which had poor internal consistency (Cronbach's $\alpha = 0.45$). On all of these tasks, higher scores indicate better performance.

2.2.3. Bias-oriented social cognitive tasks

Two bias-oriented tasks were used. Attributional style was measured with the Ambiguous Intentions Hostility Questionnaire (AIHQ) – Abbreviated (Combs et al., 2007). The AIHQ Total score measures hostile attributional biases. It consists of two subscales that examine reactions to ambiguous negative situations (e.g., "You walk past a bunch of teenagers at a mall and you hear them start to laugh") and accidental negative situations (e.g., "A friend of yours slips on the ice, knocking you onto the ground"). Higher scores indicate greater attributional bias. The Trustworthiness Task asks participants to rate the trustworthiness of 42 unfamiliar faces (Adolphs et al., 1998). Higher scores indicate more trust. Internal consistency for bias-oriented tasks in the current study was adequate (Cronbach's $\alpha = 0.87$ for the AIHQ and 0.90 for the Trustworthiness Task).

2.2.4. Skills factor

A recent confirmatory factor analysis on five of the six skills-based SCOPE tasks demonstrated that they load onto one latent factor (Browne et al., 2016). To assess whether the six skills-based tasks loaded onto one latent factor in the current sample, a confirmatory measurement model was conducted using the maximum likelihood method of parameter estimation. Overall model fit was determined using guidelines from Hu and Bentler (1999). The Hinting Task did not adequately load onto the Skills domain ($\beta = 0.10$, $p = 0.54$) and was removed from the final skills factor. The final CFA consisted of the Eyes Task, TASIT, BLERT, ER-40, and RAD-15. It demonstrated good fit to the data, $X^2(5) = 4.32$, $p = 0.50$. Standardized loadings and model fit indices are displayed in Table 1.

2.2.5. Bias factor

Prior factor analytic studies on social cognition have not assessed whether the Trustworthiness Task and the AIHQ load onto one factor (Bell et al., 2009; Browne et al., 2016; Buck et al., 2016; Mancuso et al., 2011; Mehta et al., 2014; Ziv et al., 2011). However, they can both be categorized as bias-oriented tasks; thus, correlations between the two tasks were examined to determine if they could be combined into one factor. The AIHQ and the Trustworthiness Task were not highly correlated, $r = -0.19$, $p = 0.19$. Consequently, the z-scores for the two tasks were not combined to create a bias factor. Instead, the effects of race-related factors on the AIHQ and Trustworthiness Task were examined separately.

2.2.6. Trail Making Test (TMT) – Part A (Reitan, 1958)

The Trail Making Test – Part A, which is considered a measure of attention and working memory, was selected as a brief measure of neurocognition. T-scores for participants in the Black and Non-Black experimenter conditions are reported in Table 2.

Table 1
Standardized loadings and fit indices for skills-based tasks onto Skills factor in final CFA model.

	Estimate	S.E.
BLERT	0.65**	0.10
ER-40	0.61**	0.11
TASIT	0.43**	0.14
Eyes	0.88**	0.08
RAD-15	0.50**	0.12

CFI = 1.00; RMSEA = 0.00; SRMR = 0.05.
** $p < 0.01$.

Table 2
Means and standard deviations for social cognitive measures and frequency of perceived racism.

Measure	Black experimenter M (SD)	Non-Black M (SD)
Hinting Task*	14.65 (3.47)	16.03 (1.88)
TASIT	55.10 (3.77)	54.40 (5.20)
Eyes	26.70 (3.77)	25.07 (4.19)
Relationships Across Domains	34.30 (3.72)	32.48 (4.65)
ER-40	35.20 (2.17)	32.94 (3.59)
BLERT*	18.00 (2.15)	16.23 (2.11)
AIHQ Total	7.83 (1.90)	7.87 (1.47)
AIHQ Ambiguous	8.91 (2.03)	8.80 (2.18)
AIHQ Accidental	6.74 (2.02)	6.93 (1.54)
Trustworthiness	0.09 (0.58)	− 0.05 (0.51)
Daily Life Experiences Frequency Subscale	1.93 (1.26)	1.57 (0.92)
Trails A (seconds)	23.22 (6.69)	24.72 (7.68)
Trails A (t-score)	50.42 (9.74)	52.61 (11.18)

* $p < 0.05$.

2.3. Selection and training of research assistants

Research assistants were undergraduate students aged 19–21-years-old. They dressed in business casual attire for the testing sessions and used the same race-neutral name (Brandon) to identify themselves to participants. Additionally, research assistants followed scripts to interact with participants.

One of the White experimenters was told by participants that they could not easily identify his ethnicity; consequently, a fifth White experimenter joined the research team and experimenters. We opted to include the "ambiguous" experimenter in analyses and experimenters were classified as "Black" and "Non-Black" (a category which included the ambiguous experimenter) rather than "Black" and "White". Each experimenter tested approximately ten participants; thus, in total, Black experimenters tested 21 participants and Non-Black experimenters tested 30 participants.

As a validity check, subjects rated on 5-point Likert scales how friendly and professional they found the experimenter, as well as how comfortable they felt during the study session. The three scores were averaged to calculate an overall representation of subjects' impression of the experimenter. There were no significant differences in perceptions of experimenter behavior and level of comfort in the Black and Non-Black conditions, $t(38) = -0.58$, $p = 0.56$.

2.4. Procedure

Recruitment materials directed participants to an online screener. Eligible participants were asked to complete the Daily Life Experiences Scale. Participants were randomized to interact with either a Black ($N = 2$) or a Non-Black ($N = 3$) male research assistant in the experimental session. Male research assistants were chosen to match the gender of the participants. In the experimental session, participants provided informed consent, then completed Trails A followed by the counterbalanced SCOPE tasks. At the end of the session, participants were briefly left alone to complete ratings of the experimenter.

2.5. Data analytic plan

Primary hypotheses were assessed through multiple linear regression. Effect size was evaluated with partial eta-squared (η_p^2) values. Trends towards significance ($p < 0.10$) are included in the results. Multiple linear regression was used to examine the effects of race-related factors on social cognitive tasks. The three race-related predictor variables, entered simultaneously into the model, were the dichotomous variable of Experimenter Race (Non-Black/Black), the

continuous variable of Perceived Racism scores, and the interaction term (Experimenter Race × Perceived Racism). The outcome variables, each examined separately, were the AIHQ, Trustworthiness Task, and the Skills factor. Neurocognition was also examined as a mediator between the race-related variables and the Skills factor. Additionally, exploratory analyses were conducted to examine the effect of experimenter race and perceived racism on individual skills-based tasks.

3. Results

3.1. Descriptive analyses

Table 2 displays the means and standard deviations for each social cognitive measure and the time in seconds and t-scores for the Trail Making Test.

Missing data, which did not follow a systematic pattern and amounted to no more than three cases on any given variable, were excluded from analyses. Two outliers (defined as any values 3SD +/− the mean) were noted, one in the Hinting Task (3.48 SD below the mean) and one in the TASIT (3.10 SD below the mean). Tests were conducted with and without outliers; however, no differences in significance tests emerged when outliers were excluded. Thus, all reported results include outliers. Independent samples *t*-tests were conducted to examine whether students and community members differed on social cognitive tasks and Trails A scores. The only significant group difference was on the BLERT; undergraduate students performed better than non-undergraduate participants $t(49) = 2.03$, $p < 0.05$.

3.2. Primary analyses

Tables 3, 4 display coefficients, standardized errors, and effect sizes for the regression analyses for bias-oriented and skills-based tasks.

3.2.1. The effects of perceived racism, experimenter race, and the interaction term on bias-oriented tasks

The model for the AIHQ Total score was marginally significant, $R^2 = 0.14$, $F(3,46) = 2.42$, $p = 0.08$; however, none of the individual predictors were significant. The overall model fit for the AIHQ Accidental subscale was significant, $R^2 = 0.19$, $F(3,45) = 3.52$, $p < 0.05$. Frequency of perceived racism significantly predicted AIHQ Accidental scores; for each one-point increase in the frequency of perceived racism, participants displayed a 0.94 increase in perceived blame ratings ($\eta_p^2 = 0.14$). There were no significant main or interaction effects of race-related variables on AIHQ Ambiguous scores. The overall model for the Trustworthiness Task was not significant, $R^2 = 0.07$, $F(3,47) = 1.11$, $p = 0.35$.

3.2.2. The effects of neurocognition, perceived racism, experimenter race, and the interaction term on skills-based tasks

Although faster time to complete Trails A predicted higher scores on the Skills Factor ($r = -0.54$, $p < 0.01$), none of the race-related factors significantly predicted Trails A. Consequently, criteria were not met to conduct a mediation analysis and Trails A was excluded from subsequent analyses.

The overall model for the Skills Factor, excluding neurocognition, was marginally significant, $R^2 = 0.14$, $F(3,47) = 2.56$, $p = 0.07$. There was a significant main effect for experimenter race, such that participants with a Black experimenter scored 0.83 standard deviations higher than those with a Non-Black experimenter ($\eta_p^2 = 0.09$).

3.2.3. Exploratory analyses

The overall model fit for the BLERT was statistically significant, $R^2 = 0.23$, $F(3,47) = 4.71$, $p < 0.01$. There was a significant main effect for experimenter race, such that participants with a Black experimenter scored 3.93 points higher on the BLERT Total than those with a Non-Black experimenter ($\eta_p^2 = 0.20$). This main effect was qualified, however, by a significant experimenter race × perceived racism interaction ($\eta_p^2 = 0.09$): participants with Black experimenters performed more poorly on the BLERT as the frequency of perceived racism increased. In contrast, perceived racism did not impact BLERT performance with Non-Black experimenters.

The overall model fit for the Hinting Task was statistically significant, $R^2 = 0.20$, $F(3,45) = 3.85$, $p < 0.05$. There was a significant effect of experimenter race ($p < 0.05$), such that participants with a Non-Black experimenter scored 2.83 points higher than those with a Black experimenter ($\eta_p^2 = 0.08$).

There were no significant main or interaction effects of race-related variables on the ER-40, Eyes Task, TASIT, or RAD.

4. Discussion

The results of the current study revealed that on bias-oriented tasks, African Americans with higher frequency of perceived racism were more likely to infer hostility in accidental negative interpersonal scenarios. However, neither experimenter race nor perceived racism impacted inference of hostility in ambiguous negative interpersonal scenarios, or ratings of trustworthiness. Additionally, participants performed significantly better with a Black experimenter than with a Non-Black experimenter on a skills-based task factor. However, the hypothesis that the relationship between race-related variables and skills-based tasks would be mediated by neurocognition was not supported.

The association between perceived racism and increased bias in accidental situations concords with previous studies that have demonstrated an association between perceived racism and nonclinical paranoia (Combs et al., 2006), and anger and hostility (Broudy et al., 2007; Chao et al., 2012). However, the finding that perceived racism predicted hostility in accidental scenarios contrasts with prior studies that have found ambiguous, rather than accidental, scenarios are most likely to elicit hostile attributional biases (Combs et al., 2007, 2009).

The foregoing may be attributable to the nature of contemporary racism. Blatant acts of racism are no longer acceptable; however, microaggressions and police brutality are two examples of modern racism (Chaney and Robertson, 2013; Sue et al., 2008). Microaggressions are "brief, commonplace, and daily verbal, behavioral and environmental slights and indignities" (Sue et al., 2008, p. 329) experienced by African Americans, such as being followed around department stores. Additionally, African Americans experience high rates of police brutality

Table 3
Regression models of race-related variables on bias-oriented tasks.

	AIHQ total		AIHQ ambiguous		AIHQ accidental		Trust	
Variable	B (η_p^2)	SE	B (η_p^2)	SE	B (η_p^2)	SE	B (η_p^2)	SE
Perceived Racism	0.50	0.31	0.22	0.42	0.94* (0.14)	0.36	− .17	0.11
Experimenter Race	− 0.44	0.87	− 0.88	1.15	0.18	0.91	− 0.10	0.30
Interaction	0.11	0.42	0.47	0.56	− 0.41	0.46	0.16	0.15

** $p < 0.01$.
* $p < 0.05$.

Table 4
Regression models of race-related variables on skills-based tasks.

	Skills factor		BLERT		ER-40		Hinting		TASIT		Eyes		RAD	
Variable	B (η_p^2)	SE	B (η_p^2)	SE	B (η_p^2)	SE	B (η_p^2)	SE	B (η_p^2)	SE	B (η_p^2)	SE	B (η_p^2)	SE
Perceived Racism	0.16	0.14	0.48	0.41	0.54	0.63	0.52	0.50	1.21	0.94	− 0.09	0.82	0.75	0.86
Experimenter Race	0.83* (0.09)	0.37	3.93** (0.20)	1.13	2.96	1.74	− 2.83* (0.08)	1.39	2.53	2.61	2.22	2.26	1.83	2.39
Interaction	− 0.21	0.18	− 1.21* (0.09)	0.56	− 0.46	0.85	0.66	0.68	− 1.17	1.27	− 0.29	1.11	− 0.15	1.17

* $p < 0.05$.
** $p < 0.01$.

(Chaney and Robertson, 2013; Sinyangwe et al., 2015), and tend to believe law enforcement is racially biased such that White police officers disproportionately target Black individuals (Chaney and Robertson, 2013; Smith and Holmes, 2003). Both microaggressions and police brutality demonstrate a pattern of African Americans being targeted by individuals who may subsequently deny any racial biases. In parallel, the AIHQ Accidental subtest asks participants to imagine scenarios in which others cause them harm, while offering ostensible excuses to deny wrongdoing. Healthy African American individuals may infer hostility in these accidental scenarios because the excuses provided may trigger feelings of mistrust and disbelief. In contrast, ambiguous situations may elicit less of a sense of mistrust, as excuses are not provided for the slights to the victims in the scenarios.

Our prediction of a significant effect of race-related variables on the Trustworthiness Task was not supported. Although null findings are difficult to explain, phase 3 of the SCOPE study demonstrated that the Trustworthiness task does not clearly distinguish individuals with schizophrenia from healthy controls and may not measure bias-related constructs as strongly as other measures (Pinkham et al., 2016). Consequently, the Trustworthiness Task may not be impacted by race-related factors.

We also found that participants performed better with Black experimenters on a skills-based factor score than with Non-Black experimenters. However, prior findings that Non-Black experimenters deplete neurocognition were not replicated (Marx and Goff, 2005; Richeson et al., 2005). Previous studies have found White experimenters deplete neurocognitive capacity in Black participants after substantial interracial interactions and on an extended, effortful battery of neurocognitive tests (Marx and Goff, 2005; Richeson et al., 2005). In the current study, the neurocognitive battery was administered at the beginning of the experimental protocol (prior to any prolonged interaction with the experimenter) and was brief (< 5 min). Thus, participants may have performed worse on the skills-based tasks due to depleted neurocognitive capacity, but this depletion may not have been captured by the study design. Alternatively, it is possible that experimenter race affects skills-based task performance through mechanisms other than neurocognition, as research in schizophrenia demonstrates that neurocognition and social cognition are related but not orthogonal constructs (Schmidt et al., 2011).

Exploratory analyses revealed that on specific skills-based tasks, race-related factors significantly impacted performance on social perception, emotion identification, and theory of mind. Results for the BLERT indicated that emotion and social perception are improved in the presence of Black rather than Non-Black experimenters, in keeping with the general finding on skills-based task performance. However, this main effect was qualified by a significant interaction: Although social perception scores were *always higher* in the presence of a Black versus Non-Black experimenter, higher perceived racism attenuated the superior performance of participants in social perception in the presence of a Black experimenter. Please note that because none of these analyses applied Bonferroni correction, these conclusions are merely tentative.

The only other known study evaluating both perceived racism and experimenter race found that perceived racism interacts with White rather than Black experimenters, affecting neurocognitive performance (Thames et al., 2013). In contrast, the current study suggests that perceived racism interacts with Black rather than Non-Black experimenters, impacting performance on social cognitive tasks. While these findings are difficult to interpret, one possible explanation pertains to the setting of the current study, as Shelton and Sellers (2000) have found that racial self-awareness varies based on context. The current study took place in a predominantly White university (7.6% African American, 59.9% Caucasian; ConnectCarolina Fall Census, 2016), and participants may have expected a Non-Black experimenter. The unexpected presence of a same-race Black experimenter may have temporarily increased subjects' awareness of their own racial identity (Shelton and Sellers, 2000), increasing the salience of perceived racism and attenuating performance in social perception.

The findings also indicate that race-related variables may impact theory of mind (ToM). Specifically, participants always performed better with a Non-Black experimenter on one measure of ToM, the Hinting Task. Participants in the presence of a Non-Black experimenter may experience greater racial self-awareness, which may prime them to discern subtler hints on a verbal theory of mind task.

Taken together, exploratory analyses indicate that Black experimenters can enhance performance on some tasks (e.g., emotion and social perception measured by the BLERT) but decrease it in other domains (ToM measured by the Hinting Task). It may be that the mode of stimulus presentation interacts with experimenter race (e.g., the BLERT involves videos of a Caucasian man while the Hinting Task utilizes a series of written vignettes without racially-identified characters) to affect performance. Alternatively, the effects of experimenter race may vary based on the domain of social cognition. This is an important area for future exploration.

Overall, the present study suggests that perceived racism and experimenter race may be two important variables to consider while measuring social cognition in African American individuals. However, the findings of this study should be considered in light of certain limitations. First, the sample size was small and the study was underpowered; thus, the study may not have captured all extant differences in race. Second, the use of Trails A at the beginning of the study, rather than a more comprehensive battery administered after extended interaction with the experimenter, is a key weakness of the current study. This may have resulted in a Type II error; specifically, we cannot determine whether experimenter race affects skills-based task performance through mechanisms other than neurocognition, or whether experimenter race actually does affect neurocognition. Third, our sample consisted of African American men aged 18–30; thus, findings may not be generalizable to women and individuals outside this age range. Fourth, one measure of social perception, the BLERT, had poor internal consistency; thus, the significant results for this task should be interpreted with caution. Fifth, the recruitment materials, which mentioned "African American men", may have primed participants to race and affected responses to study measures. For example, although there are no known stereotypes about social cognitive task performance, recruitment materials may have activated stereotype threat about performing cognitive tasks in a lab setting and consequently depleted performance (Steele and Aronson, 1995; Spencer et al., 2016). Sixth,

one of our White experimenters was identified as racially ambiguous by participants, which may have impacted the results. However, given that racial differences are the largest between Caucasian and Black individuals, it is likely that the experimenter's inclusion in the White group would attenuate rather than increase differences due to experimenter race. Thus, it is unlikely that the ambiguous experimenter is responsible for any of the significant findings. Lastly, the study was limited to healthy, non-clinical subjects, not those with psychotic disorders. In the future, it is critical to examine how race-related variables affect social cognition in African Americans with a diagnosis of schizophrenia.

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Conflicts of interest

None of the authors report any conflicts of interest.

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