THE IMPACTS OF SUBCLINICAL PSYCHOPATHY AND THE OTHER-RACE EFFECT ON FACIAL AFFECT RECOGNITION

A DISSERTATION SUBMITTED TO THE FACULTY

OF

PSY.D. (DOCTOR OF PSYCHOLOGY) PROGRAM IN CLINICAL PSYCHOLOGY

OF

WILLIAM PATERSON UNIVERSITY OF NEW JERSEY

BY

JANE GORMAN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

OF

DOCTOR OF PSYCHOLOGY

APPROVED

May, 2025

Bruce Diamond, Ph.D., Dissertation Chair

William Ernst, Psy.D., 2nd Committee Member

Shaynna Herrera, Ph.D., 3rd Committee Member

Abstract

Psychopathy has been linked to deficits in emotion recognition, particularly in processing facial affect. This study examined the relationships among subclinical psychopathic traits, race, and facial affect recognition in an undergraduate sample. Forty-three participants completed a facial affect recognition task involving sad, fearful, and neutral expressions, alongside measures of psychopathy and social desirability. It was hypothesized that higher levels of psychopathy would be associated with reduced accuracy and slower response times, especially for trials in which the race of the stimuli differed from that of the participant. Contrary to hypotheses, psychopathy was not significantly associated with overall accuracy or speed, regardless of the race match between participant and stimuli. However, a trend-level association emerged wherein individuals higher in psychopathy responded more quickly for matched-race trials, suggesting that the relationship between psychopathy and facial affect recognition may be more complex than previously theorized, particularly in non-clinical populations. This research adds to the growing literature on social cognition in subclinical psychopathy and highlights the need for more nuanced, context-sensitive approaches.

Acknowledgements

A very special thank you to my dissertation chair, Dr. Bruce Diamond, for being so generous with his time, resources, and expertise. Thank you to my committee members, Drs. Herrera and Ernst, for your continued encouragement and guidance throughout this process. Finally, the biggest of thank yous to my parents, siblings, family, and friends – none of this would have been remotely possible without your enduring love, motivation, and support.

The Impacts of the Other-Race Effect and Psychopathic Traits on Facial Affect Recognition

Psychopathy is a condition characterized by interpersonal-affective dysfunction and antisocial behavior. According to Hare and Hart, whose seminal work contributed to the conceptualization and measurement of psychopathy, the prototypical psychopathic individual is one who acts in ways which violate the norms, expectations, and rights of society, and exhibits a lack of empathy and remorse (1993). The most recent model of psychopathy suggests that the construct is comprised of four factors: arrogant and deceitful traits, a deficient affective experience, an impulsive and irresponsible lifestyle, and antisocial behavior (Hare & Neumann, 2005; Vitacco et al., 2005). Psychopathy is associated with increased risk of substance use, violence, incarceration, treatment drop-out, and recidivism (Smith & Newman, 1990; Hart, 1998; Olver et al., 2011; Blais et al., 2014).

Psychopathy affects between 1 and 5% of the general adult population (Kiehl & Hoffman, 2011; Sanz-Garcia et al., 2021; De Brito et al., 2021). The prevalence of psychopathy in the criminal justice system is significantly higher, however, comprising 16% to 25% of the male prison population in North America (Kiehl & Hoffman, 2011). These estimates vary by the type of instrument used to define psychopathy. Estimates derived from studies that utilize the categorical (threshold) method of identification tend to be more conservative (Garcia et al., 2021). Thus, the true prevalence—including individuals whose scores fall just below the cutoff—is likely higher.

Individuals with psychopathic traits account for a disproportionate amount of criminal behavior and violence, of which the personal and financial costs are profound. It has been estimated that legally involved individuals with psychopathy cost the United States $460 billion a year. As a result, psychopathy has been recognized as both the most expensive mental health disorder and the costliest public health crisis (Kiehl & Sinnott-Armstrong, 2013). The emotional toll on families who have lost loved ones to violence or incarceration, however, is unquantifiable.

Emotion Recognition Deficits and Psychopathy

A robust relationship has been established between psychopathy and facial emotion processing deficits (Blair, 2013, Kyranides et al., 2022). Additionally, there is some evidence to suggest that psychopathy selectively impairs the recognition of specific emotions, such as those that signal distress (i.e., sadness and fear) even when such expressions were increasingly intense and individuals took longer to respond (Blair et al., 2001; Blair et al., 2004; Dolan & Fullam, 2006; Stevens et al., 2001; Habel et al., 2002; Hastings et al., 2008). Dolan and Fullam (2006) argued that the difference in accuracy scores between individuals in the psychopathy and control groups in their study could not be attributed to impulsivity, as individuals in the psychopathy group had significantly longer recognition times.

It has been suggested that emotion recognition deficits associated with psychopathy contribute to antisocial behavior. Blair's (2001) Violence Inhibition Mechanism theory posits that deficits in emotion perception prevent individuals with psychopathy from effectively engaging in social learning. Whereas typically developed individuals learn that a behavior is inappropriate or unacceptable when it is paired with the aversive experience of recognizing that it has caused fear, sadness, or pain in others, individuals who are unable to perceive the link between their actions and distress cues continue to engage in self-gratifying behavior without experiencing the negative emotional consequences associated with it.

Proposed etiological pathways of the impairments in emotion recognition associated with psychopathy include amygdala dysfunction and attention deficits. In line with the amygdala dysfunction theory, significant functional and structural brain abnormalities have been found in various regions making up the limbic and paralimbic systems in individuals with psychopathy (Johanson et al., 2020; Kiehl et al., 2004; Birbaumer et al., 2005; Gordon et al., 2004). Additionally, individuals high in psychopathy evidence reduced attention to the eyes of fearful faces, lending support to Dadds and colleagues' (2011) theory that attention deficits prevent individuals with psychopathy from processing socially relevant information (Dargis, 2018; Dadds et al., 2006; Dadds et al., 2008).

Rationale for the Current Study

While psychopathy is often associated with negative social and behavioral sequelae that attract psychological and forensic attention, there is likely a larger number of people with subthreshold psychopathic traits who go undetected. Hare and Hart compared incarcerated psychopaths to the "tip of a very large iceberg" (1993). Indeed, the field's understanding of psychopathy, and mental health disorders more broadly, has shifted away from a categorical classification (i.e., psychopathic vs. non-psychopathic) towards a dimensional approach wherein individuals may possess a range of traits approaching the formal threshold or cutoff. While base rates of clinical psychopathy are low, base rates of subclinical psychopathy are estimated to range from 5 to 15% of the general population (Gustafson & Ritzer, 1995; Pethman & Earlandsson, 2002).

Successful, or adaptive/subclinical psychopaths are individuals who possess psychopathic personality traits, while maintaining social, academic, or occupational role functioning. Lilienfeld and colleagues (2015) and Hall and Benning (2006) proposed three frameworks of successful psychopathy: the moderated-expression, differential-configuration, and differential-severity models. The moderated-expression model considers the roles of protective factors such as intact executive functioning, intelligence, and effective parenting, which obscure the typical clinical presentation and associated outcomes, while the differential-configuration model proposes that other personality traits such as boldness are at the forefront of and dominate the clinical presentation. The differential-severity model, however, suggests that subclinical psychopathy is a less intense manifestation of clinical psychopathy. Thus, according to the differential-severity model, the emotion recognition deficits observed in clinical psychopathy would also be present in subclinical populations, albeit to a lesser extent. Such would likely cause some level of conflict in personal and professional relationships, presumably resulting in disciplinary action in settings like campuses or workplaces, for example.

Many of the existing protocols examining the impact of psychopathy on emotion recognition have utilized traditional cutoff scores for psychopathy and exclusively European facial stimuli. Thus, the relationships among subclinical psychopathic traits, race, and affect recognition have not been studied. A large research base has established what is known as the "other-race effect," or differential performance in processing and assessing same- versus other-race faces (Elfenbein & Ambady, 2002; Meissner & Brigham, 2001). The other-race effect is most often attributed to disproportional experience with and exposure to same-race faces compared to other-race faces. An interaction between participant race and stimulus race has been demonstrated in both healthy controls and in patients with schizophrenia, suggesting that the other-race effect remains intact in pathological populations (Pinkham et al., 2008).

The current study seeks to expand upon the existing literature by examining the link between facial affect recognition and psychopathic traits in a non-clinical sample, while also accounting for race. It was hypothesized that individuals higher in psychopathy would exhibit reduced accuracy and slower response times in the affect recognition task. Furthermore, it was hypothesized that the other-race effect would remain intact with increasing levels of psychopathy, such that individuals higher in psychopathy would exhibit reduced accuracy and slower response times in affect recognition compared to those lower in psychopathy when the race of the stimuli differed from that of the participant.

Method

Participants

A power analysis based on prior research involving similar computer-based tasks with the same software estimated that a sample size of 50 would allow 80% power to detect a medium effect size (Cohen, 2013; Ferguson, 2009). Participants were undergraduate students 18 years or older who completed anonymous surveys and an in-person computer task for course credit. The final sample consisted of 43 participants (29 female), 14 of which (32%) identified as Hispanic/Latino, 11 (25%) as Black, nine as White (23%), and four as Asian Pacific Islander (9%). The remaining five participants (11%) identified as having more than one race. Ninety-four percent of participants were between the ages of 18 and 21.

Measures

Demographic Questions

Participants answered questions regarding their race and ethnicity, sex, language, and level of education.

Psychopathy

Psychopathy was assessed using the Levenson Self-Report Psychopathy Scale (LSRP; Levenson et al., 1995*).* The LSRP is a 26-item self-report measure of psychopathic traits developed for use in non-institutionalized populations. Participants rated their level of agreement with statements such as “Success is based on survival of the fittest; I am not concerned about the losers,” on a scale from 1 (*disagree strongly*) to 4 (*agree strongly*). The LSRP yields two subscale scores for primary and secondary psychopathy, which are summed for a total psychopathy score. The LSRP was initially validated in a sample of college students and reflects the content contained in the purported gold standard measure of psychopathy, the Hare Psychopathy Checklist (PCL-R). Past research has demonstrated the strong internal, convergent, and divergent validity of the LSRP, as well as its reliability (Sellbom, 2009; Sellbom, 2011; Brinkley et al., 2001; McHoskey et al., 1998).

Social Desirability

The Marlowe-Crowne Social Desirability Scale (MCSDS; Marlowe & Crowne, 1960) is one of the most widely used tools for assessing socially desirable responding, or the tendency to portray oneself in a favorable light. Socially desirable responding cofounds research results by obscuring relationships between study variables. The MCSDS is a 33-item self-report questionnaire designed to measure and control for this bias. Participants responded true or false to statements about socially approved but uncommon behaviors (i.e., “No matter who I am talking to, I am always a good listener”) and socially disapproved but common behaviors (i.e., “I have never intensely disliked someone”). The total MC-SDS score reflects the sum of true statements, and ranges from 0 (low) to 33 (high social desirability). The MCSDS has demonstrated good internal consistency, as well as adequate reliability and validity (Crowne & Marlowe, 1960; Beretvas et al., 2002; Loo & Thorpe, 2000).

Affect Recognition Task

Stimuli for the emotion recognition task were created using FaceGen Modeller (Singular Inversions) a data driven, statistical modelling software for generating 3D faces. The stimuli consisted of 60 male and 60 female faces with sad, neutral, and fearful expressions. Of the 60 female faces, 30 were Black and 30 were White. Of the 60 male faces, 30 were Black and 30 were White. Neutral faces were created first, using an automated procedure in FaceGen and served as the base onto which sad and fearful expressions were added. Sad and fearful expressions were added to neutral expressions using an automated procedure at an intensity of 50%. Examples of the stimuli can be seen in Appendix A.

The facial stimuli generated with FaceGen Modeller were integrated into the Gentask Module of STIM2 (Compumedics Neuroscan), a stimulus presentation and experimental design system that enables the recording of behavioral responses. Participants viewed the images of the 120 faces showing sad, fearful, and neutral facial expressions and selected their responses by pressing designated keys on the keyboard. Each of the 120 trials had an intertrial interval (ITI) of 7000 milliseconds, a stimulus presentation duration of 3000 milliseconds, and a response window of 4000 milliseconds. These parameters reflect efforts to reduce cognitive load and the potential for interference, as well as to allow for full appraisal and immediate responding. Additionally, mask images were shown between trials to clear the retina of the previous image.

Performance Scales

Scales for performance on the affect recognition task were created. These included the accuracy and speed (response time) scales. Each of the 120 trials was scored as “correct” or “incorrect,” and correct responses were summed into a single scale to reflect a total accuracy score. Additional accuracy scores were created for trials in which the race of the participant and the race of the facial stimuli were matched (“same”), and for trials in which they differed ("different"). A total speed scale was created by combining the individual scores from the 120 trials into a single score based on the mean. Additional speed scales were created to reflect the speed of trials in which the participant's race and the race of the facial stimuli were either matched ("same") or differed ("different").

Procedure

This study received approval from the university's Institutional Review Board (IRB). It was listed on SONA, the university's research sign-up and credit-granting system, and was advertised to students in undergraduate psychology courses via word of mouth. Students first completed a screening questionnaire to determine their eligibility. Those diagnosed with autism spectrum disorders, schizophrenia spectrum disorders, and neurological or visual-perceptual deficit disorders were excluded from participation due to the strong association of these disorders with impairments in processing and emotion recognition. Additionally, only students who were 18 years or older were eligible to participate.

The Qualtrics survey containing the demographic questionnaire, MCSDS, and LSRP, and the computer task were both administered in a controlled laboratory setting in the psychology department. Participants first completed an eye examination with a standard Snellen chart to demonstrate normal corrected vision. Half of the participants then completed the computer task, followed by the survey, and the other half completed the survey and then the computer task. Likewise, the order of the demographic questions, MCSDS, LSRP, and facial stimuli were randomized to control for potential order effects.

Statistical Analysis Plan

The Statistical Package for Social Science (SPSS) version 30 was used for data preparation and analyses. First, the data were examined for disingenuous response patterns and to ensure that the assumptions for hypothesis testing were met. The primary analyses for testing the study hypotheses were simple linear regression models. Descriptive analyses indicated that the data satisfied the key assumptions of linear regression, including linearity, independence of measures, normality, and lack of multicollinearity.

The normality assumptions were assessed using skewness and kurtosis statistics, as well as Kolmogorov-Smirnov tests. All the scales had low skewness and kurtosis values, and the ratio of the skewness/kurtosis scores to their standard errors were all less than 1.5. The Kolmogorov-Smirnov statistic was not significant for any of the scales, indicating the scales adhered to normal distributions.

An examination of scatterplots and correlations between variables indicated that the associations between variables were mostly linear. The LSRP and MCSDS scores were marginally and positively associated, such that as psychopathy increased, social desirability also increased. Psychopathy was negatively associated with the percentage of correct responses on the affect recognition task, such that as psychopathy increased, accuracy decreased; however, the association was only at the trend level. Social desirability was not statistically related to the number of correct responses or the speed of responses on the affect recognition task. Speed and correct responses were significantly and negatively correlated such that the longer respondents took to respond, the fewer emotions were correctly identified.

An examination of boxplots in SPSS revealed two outliers on the total accuracy measure. However, neither value exceeded three standard deviations from the mean, and thus were included in the regression analyses. VIF and tolerance values were examined and indicated that the variables had low levels of multicollinearity.

First, a simple linear regression was conducted to control for socially desirable responding on the LSRP. LSRP scores were regressed onto MCSDS scores. The primary independent variable for all subsequent regression models was the adjusted LSRP score (residualized psychopathy scores after accounting for social desirability). The dependent variables included the number of correct responses overall (accuracy), accuracy when the race of the participant matched and differed from that of the facial stimuli, overall speed, and speed when the race of the participant matched and differed from that of the stimuli.

Results

Participants were classified into four groups based on their psychopathy (LSRP) scores: low, medium, high, and very high. The distribution of participants across these groups is presented in Table 1. The majority of participants fell into the low psychopathy group, with 32 participants (48.5%) classified as having low levels of psychopathy. The medium psychopathy group consisted of 10 individuals (15.2%). Only 1 participant (1.5%) was classified as having high psychopathy, and no participants were classified in the very high psychopathy group. The mean MCSDS scores for each racial/ethnic group fell into the high range, indicating a high level of socially desirable responding. Mean psychopathy, social desirability, and performance scale scores are presented in Table 2 and are comparable to those previously reported in non-clinical samples (Levenson et al., 1995; Prado et al., 2015).

Overall Accuracy (Number of Correct Responses)

A simple linear regression was conducted to predict psychopathy scores from social desirability scores (MCSDS). The model was not statistically significant, $F(1,41) = 2.88$, $p = .097$, and accounted for 6.6% of the variance in psychopathy scores, with $B = 0.72$, $SE = 0.42$, $\beta = .26$.

A subsequent regression analysis was conducted to predict overall accuracy on the affect recognition task from the adjusted LSRP scores. The model was also not statistically significant, $F(1,41) = 1.47$, $p = .233$, and accounted for 3.4% of the variance in overall accuracy. The adjusted LSRP score was not a significant predictor, with $B = -0.20$, $SE = 0.17$, $\beta = -.19$ (Table 3).

Psychopathy and Accuracy for Matched Race

A simple linear regression was conducted to predict accuracy on the affect recognition task from the adjusted psychopathy scores for trials in which the race of the participant matched that of the stimuli. The model was not statistically significant, $F(1, 18) = 1.21$, $p = .286$, and accounted for 6.3% of the variance in accuracy for matched race trials, with $B = -0.13$, $SE = 0.12$, $\beta = -.25$ (Table 4).

Psychopathy and Accuracy for Unmatched Race

A simple linear regression was conducted to predict accuracy on the affect recognition task from the adjusted psychopathy scores for trials in which the race of the participant differed from that of the stimuli. The model was not statistically significant, $F(1, 18) = 0.12$, $p = .736$, and accounted for .6% of the variance in accuracy for different race trials, with $B = -0.06$, $SE = 0.18$, $\beta = -.08$ (Table 5).

Response Speed

A simple linear regression was conducted to predict overall response speed from the adjusted LSRP scores. The model was not statistically significant, $F(1, 41) = 0.64$, $p = .430$, and accounted for 1.5% of the variance in overall response speed, with $B = 6.71$, $SE = 8.42$, $\beta = .12$ (Table 6).

Psychopathy and Response Speed for Matched Race

A simple linear regression was conducted to predict response speed from the adjusted LSRP scores for trials in which the race of the participant matched that of the stimuli. The model was not statistically signific46664 PSY-6900-060- Clinical Practicum I ant, $F(1, 18) = 3.65$, $p = .072$, and accounted for 16.9% of the variance in response speed for matched race trials, with $B = -19.18$, $SE = 10.04$, $\beta = -.41$ (Table 7).

Psychopathy and Response Speed for Unmatched Race

Finally, a simple linear regression was conducted to predict response speed from the adjusted LSRP scores for trials in which the race of the participant differed from that of the stimuli. The model was not statistically significant, $F(1, 18) = 1.07$, $p = .315$, and accounted for 5.6% of the variance in response speed for different race trials, with B = -12.94, SE = 12.52, $\beta = -.24$ (Table 8).

Discussion

This study examined the relationships among subclinical psychopathic traits, race, and performance on an affect recognition task in an undergraduate student population. Overall, the study hypotheses were not supported. It was hypothesized that higher levels of psychopathy would be associated with reduced accuracy and increased response speed on the affect recognition task. Furthermore, it was hypothesized that individuals higher in psychopathy would be less accurate and slower than individuals lower in psychopathy when the race of the stimuli differed from their own.

Results indicated that, contrary to our hypotheses, individuals higher in psychopathy performed similarly to individuals lower in psychopathy on the affect recognition task in terms of overall accuracy and response time. These findings are inconsistent with those of Prado and colleagues' (2017) and Prado and colleagues' (2015), who found that increasing levels of psychopathic traits were related to decreased accuracy in facial affect recognition.

Contrary to our hypothesis, individuals with higher levels of psychopathy showed similar accuracy to those with lower levels of psychopathy when the race of the individual differed from that of the stimuli. Additionally, psychopathy did not affect response speed, regardless of the match between participant and stimulus race. However, the relationship between psychopathy and response speed approached significance for trials with matched race stimuli, suggesting that individuals higher in psychopathy responded more quickly when their race matched that of the stimuli.

One possible explanation for this finding is that the other-race effect remains intact with increasing levels of psychopathy, and that same-race stimuli are processed more quickly due to increased familiarity with same-race faces. Furthermore, it is possible that individuals higher in psychopathy rely more heavily on surface-level processing strategies, and the increased perceptual fluency associated with same-race faces facilitates quicker responses. This interpretation is in line with research suggesting that psychopathy is associated with reduced emotional reactivity but preserved or even enhanced cognitive efficiency in certain contexts. For example, individuals with high primary psychopathic traits showed diminished emotional reactivity but maintained normal or enhanced attentional focus during emotionally salient tasks (Sadeh & Verona, 2008). Similarly, affective psychopathy has been linked to greater cognitive control and conflict monitoring, particularly in emotionally distracting contexts (Osumi & Ohira, 2010).

Alternatively, the decreased response times in the matched-race condition may reflect lower cognitive load when processing more familiar stimuli. Psychopathy has been linked to a tendency to minimize cognitive effort unless instrumental reward is present; thus, it is plausible that same-race trials were perceived as less complex or ambiguous, prompting more rapid, heuristic-based judgments (Newman et al., 2010). This would be consistent with the speed-accuracy tradeoff often seen in individuals high in impulsivity and sensation-seeking—traits associated with secondary psychopathy (Ross & Rausch, 2001).

Importantly, this trend may suggest that emotion recognition deficits in psychopathy are context-dependent, emerging more clearly in socially ambiguous or emotionally salient situations. For example, individuals with psychopathic traits may perform well on basic emotion recognition tasks in controlled settings but struggle to interpret emotions accurately during complex social interaction. The lack of a similar trend in the unmatched-race condition could indicate that individuals high in psychopathy either disengage from less familiar stimuli or that the increased demands of these trials override their typical speed advantage.

Limitations and Future Directions

Several methodological limitations affect the generalizability of the current results. First, the small sample size overall, as well as the reduced sample size for testing the third hypothesis significantly limited the power of the statistical analyses. Second, several potential confounding variables, including anxiety, depression, use of psychotropic medications, drug and alcohol use, and differences in IQ were not controlled for. This is potentially problematic in that these factors can introduce biases in emotion processing, impair judgement, and contribute to slower reaction times.

The composition of the sample also presents a challenge to generalizability. Given that the sample consisted exclusively of undergraduate students, the data may not be representative of a true community sample. Moreover, the participants were recruited from psychology courses, and thus may be more emotionally attuned than members of the general population. Furthermore, the sample was predominantly female. This is problematic in that sex differences have been observed in psychopathy, with prevalence rates higher in males than females (Forouzan & Cooke, 2005; Vitale et al., 2002; Verona & Vitale, 2007).

Some aspects of the emotion recognition task pose a threat to ecological validity. While real-world facial expressions are dynamic, vary in intensity, and are typically accompanied by gestural and vocal cues, the stimuli utilized in this study were static and only portrayed emotion at medium intensity. Additionally, although this study improved upon the existing literature by considering the role of race in the relationship between psychopathy and affect recognition, it was substantially limited by the dichotomization of race into only two categories. Future studies should explore the relationship between psychopathic traits and facial affect recognition using subtle and morphed emotional expressions, with more diverse stimuli, and in naturalistic settings.

Some questions remain unanswered due to the nature of the study’s design and the scope of the investigation. For one, it is presently unknown whether psychopathy influenced a speed-accuracy tradeoff in the emotion recognition task. While this study measured both the speed and accuracy of participants' responses separately, it did not examine the interaction between these two factors. Future studies should account for these interaction effects, as doing so might uncover differences in strategies employed by high and low psychopathy groups. Another question that remains is whether psychopathy differentially impacted the processing of fear and sadness. This is an important area for future study, as it will inform theories of affect recognition deficits related to empathy processing and threat detection.

Differences in affect recognition between primary and secondary psychopathy are another interesting area for future study. The current study utilized total psychopathy scores from the LSRP. However, it has been suggested that primary psychopathy is of relevance when investigating psychopathy as a ‘strength’ (Ross & Rausch, 2001; Spencer & Byrne, 2016). In fact, Del Gaizo and Falkenbach (2008) found that individuals with high levels of primary psychopathic traits were generally more accurate in recognizing facial emotions, including fear, whereas no link was found between secondary psychopathic traits and emotion recognition. Clearly this distinction warrants further investigation.

Conclusion

In summary, the present study explored the relationship between subclinical psychopathic traits and facial affect recognition, as well as the role of racial match between participant and stimulus. While psychopathy has been widely associated with deficits in emotion recognition, especially in clinical populations, the current findings suggest that such effects may not generalize to non-clinical samples. Psychopathy was not significantly associated with overall accuracy or response speed on the affect recognition task, regardless of whether the race of the stimuli matched that of the participant. However, a trend-level finding emerged, indicating that individuals higher in psychopathy responded more quickly in the matched race condition, possibly as a result of increased experience with and exposure to same-race faces. This study adds to a growing body of literature suggesting that emotion recognition impairments in psychopathy may be subtler and more context-dependent in non-clinical populations. It also raises questions about the mechanisms underlying race-based differences in social perception among individuals higher in psychopathy. These findings highlight the importance of considering psychopathy dimensionally and the need to further examine how race and emotional processing interact.

References

Beretvas, S. N., Meyers, J. L., & Leite, W. L. (2002). A reliability generalization study of the Marlowe-Crowne Social Desirability Scale. *Educational and Psychological Measurements*, *62*, 570-589.

Birbaumer, N., Veit, R., Lotze, M., Erb, M., Hermann, C., Grodd, W., & Flor, H. (2005). Deficient fear conditioning in psychopathy: A functional magnetic resonance imaging study. *Archives of General Psychiatry*, *62*, 799–805.

Blair, R. J. (2001). Neurocognitive models of aggression, the antisocial personality disorders, and psychopathy. *Journal of Neurology, Neurosurgery & Psychiatry*, *71*(6), 727-731.

Blair, R. J., Colledge, E., Murray, L., & Mitchell, D. G. (2001). A selective impairment in the processing of sad and fearful expressions in children with psychopathic tendencies. *Journal of Abnormal Child Psychology*, *29*, 491-498.

Blair, R. J. R. (2013). Psychopathy: cognitive and neural dysfunction. *Dialogues in Clinical Neuroscience*, *15*(2), 181-190.

Blair, R. J. R., Mitchell, D. G. V., Peschardt, K. S., Colledge, E., Leonard, R. A., Shine, J. H., Murray, L.K., & Perrett, D. I. (2004). Reduced sensitivity to others' fearful expressions in psychopathic individuals. *Personality and Individual Differences*, *37*(6), 1111-1122.

Blais, J., Solodukhin, E., & Forth, A. E. (2014). A meta-analysis exploring the relationship between psychopathy and instrumental versus reactive violence. *Criminal Justice and Behavior*, *41*(7), 797-821.

Brinkley, C. A., Schmitt, W. A., Smith, S. S., & Newman, J. P. (2001). Construct validation of a self-report psychopathy scale: Does Levenson's Self-Report Psychopathy Scale measure the same constructs as Hare's Psychopathy Checklist–Revised? *Personality and Individual Differences*, *31*, 1021–1038.

Cohen, J. (2013). *Statistical power analysis for the behavioral sciences.* Routledge.

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349-354.

Dadds, M. R., El Masry, Y., Wimalaweera, S., & Guastella, A. J. (2008). Reduced eye gaze explains 'fear blindness' in childhood psychopathic traits. *Journal of the American Academy of Child and Adolescent Psychiatry*, *47*, 455–463.

Dadds, M. R., Jambrak, J., Pasalich, D., Hawes, D. J., & Brennan, J. (2011). Impaired attention to the eyes of attachment figures and the developmental origins of psychopathy. *Journal of Child Psychology and Psychiatry*, *52*(3), 238-245.

Dadds, M. R., Perry, Y., Hawes, D. J., Merz, S., Riddell, A. C., Haines, D. J., Solak, E., & Abeygunawardane, A. I. (2006). Attention to the eyes and fear-recognition deficits in child psychopathy. *The British Journal of Psychiatry*, *189*(3), 280-281.

Dargis, M., Wolf, R. C., & Koenigs, M. (2018). Psychopathic traits are associated with reduced fixations to the eye region of fearful faces. *Journal of Abnormal Psychology*, *127*(1), 43.

De Brito, S. A., Forth, A. E., Baskin-Sommers, A. R., Brazil, I. A., Kimonis, E. R., Pardini, D., Frick, P. J., Blair, R. J. R.., & Viding, E. (2021). Psychopathy. *Nature Reviews Disease Primers*, *7*(1), 49.

Del Gaizo, A. L., & Falkenbach, D. M. (2008). Primary and secondary psychopathic-traits and their relationship to perception and experience of emotion. *Personality and Individual Differences*, *45*(3), 206-212.

Dolan, M., & Fullam, R. (2006). Face affect recognition deficits in personality-disordered offenders: Association with psychopathy. *Psychological Medicine*, *36*(11), 1563-1569.

Elfenbein, H. A., & Ambady, N. (2002). On the universality and cultural specificity of emotion recognition: A meta-analysis. *Psychological Bulletin*, *128*(2), 203.

Ferguson, C. J. (2009). An effect size primer: A guide for clinicians and researchers. *Professional Psychology: Research and Practice*, *40*(5), 532.

Forouzan, E., & Cooke, D. J. (2005). Figuring out la femme fatale: Conceptual and assessment issues concerning psychopathy in females. *Behavioral Sciences and the Law*, *23*, 765–778.

Gordon, H. L., Baird, A. A., & End, A. (2004). Functional differences among those high and low on a trait measure of psychopathy. *Biological Psychiatry*, *56*, 516–521.

Gustafson, S. B., & Ritzer, D. R. (1995). The dark side of normal: A psychopathy-linked pattern called aberrant self-promotion. *European Journal of Personality*, *9*, 147–183.

Hall, J. R., & Benning, S. D. (2006). The "successful" psychopath: Adaptive and subclinical manifestations of psychopathy in the general population. In C. J. Patrick (Ed.), *Handbook of psychopathy* (pp. 459–478). The Guilford Press.

Hare, R. D., & Hart, S. D. (1993). Psychopathy, mental disorder, and crime. In S. Hodgins (Ed.), Mental disorder and crime (pp. 104–115). Sage Publications, Inc.

Hare, R. D. & Neumann, C. S. (2005). Structural models of psychopathy. *Current Psychiatry Reports, 7*, 57–64.

Hart, S. D. (1998). Psychopathy and risk for violence. In D. J. Cooke, A. E. Forth, R. D. Hare, (Eds.), *Psychopathy: Theory, research and implications for society* (pp. 355-373). Springer Dordrecht

Hastings, M. E., Tangney, J. P., & Stuewig, J. (2008). Psychopathy and identification of facial expressions of emotion. *Personality and Individual Differences*, *44*(7), 1474–1483.

Johanson, M., Vaurio, O., Tiihonen, J., & Lähteenvuo, M. (2020). A systematic literature review of neuroimaging of psychopathic traits. *Frontiers in Psychiatry*, *10*, 1027.

Kiehl, K. A., & Hoffman, M. B. (2011). The criminal psychopath: History, neuroscience, treatment, and economics. *Jurimetrics*, *51*, 355.

Kiehl, K. A., & Sinnott-Armstrong, W. P. (Eds.). (2013). *Handbook on psychopathy and law*. Oxford University Press.

Kiehl, K. A., Smith, A. M., Mendrek, A., Forster, B. B., Hare, R. D., & Liddle, P. F. (2004). Temporal lobe abnormalities in semantic processing by criminal psychopaths as revealed by functional magnetic resonance imaging. *Psychiatry Research*, *130*, 27–42.

Kyranides, M. N., Christofides, D., & Çetin, M. (2022). Difficulties in facial emotion recognition: Taking psychopathic and alexithymic traits into account. *BMC Psychology*, *10*(1), 239.

Levenson, M. R., Kiehl, K. A., & Fitzpatrick, C. M. (1995). Assessing psychopathic attributes in a noninstitutionalized population. *Journal of Personality and Social Psychology*, *68*(1), 151.

Lilienfeld, S. O., Watts, A. L., & Smith, S. F. (2015). Successful psychopathy: A scientific status report. *Current Directions in Psychological Science*, *24*(4), 298-303.

Loo, R., & Thorpe, K. (2000). Confirmatory factor analyses of the full and short versions of the Marlowe-Crowne Social Desirability Scale. *Journal of Social Psychology*, *140*, 628-635.

McHoskey, J. W., Worzel, W., & Szyarto, C. (1998). Machiavellianism and psychopathy. *Journal of Personality and Social Psychology*, *74*, 192-210.

Meissner, C. A., & Brigham, J. C. (2001). Thirty years of investigating the own-race bias in memory for faces: A meta-analytic review. *Psychology*, *Public Policy, and Law, 7*(1), 3.

Olver, M. E., Stockdale, K. C., & Wormith, J. S. (2011). A meta-analysis of predictors of offender treatment attrition and its relationship to recidivism. *Journal of Consulting and Clinical Psychology*, 79, 6–21.

Pethman, T. M. I., & Erlandsson, S. I. (2002). Aberrant self-promotion or subclinical psychopathy in a Swedish general population. *The Psychological Record*, *52*, 33–50.

Pinkham, A. E., Sasson, N. J., Calkins, M. E., Richard, J., Hughett, P., Gur, R. E., & Gur, R. C. (2008). The other-race effect in face processing among African American and Caucasian individuals with schizophrenia. *American Journal of Psychiatry*, *165*(5), 639-645.

Prado, C. E., Treeby, M. S., & Crowe, S. F. (2015). Examining relationships between facial emotion recognition, self-control, and psychopathic traits in a non-clinical sample. *Personality and Individual Differences*, *80*, 22-27.

Prado, C. E., Treeby, M. S., Rice, S. M., & Crowe, S. F. (2017). Facial emotion recognition, guilt and sub-clinical psychopathic traits: An exploration of mediation effects. *Motivation and Emotion*, *41*, 636-645.

Ross, S. R., & Rausch, M. K. (2001). Psychopathic attributes and achievement dispositions in a college sample. *Personality and Individual Differences*, *30*(3), 471-480.

Sanz-García, A., Gesteira, C., Sanz, J., & García-Vera, M. P. (2021). Prevalence of psychopathy in the general adult population: A systematic review and meta-analysis. *Frontiers in Psychology*, *12*, 661044.

Smith, S. S., & Newman, J. P. (1990). Alcohol and drug abuse-dependence disorders in psychopathic and nonpsychopathic criminal offenders. *Journal of Abnormal Psychology*, *99*(4), 430.

Spencer, R. J., & Byrne, M. K. (2016). Relationship between the extent of psychopathic features among corporate managers and subsequent employee job satisfaction. *Personality and Individual Differences*, *101*, 440-445.

Stevens, D., Charman, T., & Blair, R. J. R. (2001). Recognition of emotion in facial expressions and vocal tones in children with psychopathic tendencies. *Journal of Genetic Psychology*, *162*, 201–211.

Verona, E., & Vitale, J. (2007). Psychopathy in women: Assessment, manifestations, and etiology. In C. J. Patrick (Ed.), *Handbook of psychopathy* (pp. 415–436). Guilford Press.

Vitacco, M. J., Neumann, C. S., & Jackson, R. L. (2005). Testing a four-factor model of psychopathy and its association with ethnicity, gender, intelligence, and violence. *Journal of Consulting and Clinical Psychology*, *73*(3), 466.

Vitale, J. E., Smith, S. S., Brinkley, C. A., & Newman, J. P. (2002). The reliability and validity of the Psychopathy Checklist–revised in a sample of female offenders. *Criminal Justice and Behaviour*, *29*, 202–231.

Tables

Table 1

Distribution of LSRP Scores

LSRP Score	Low		Medium		High		Very High	
	n	%	*n*	%	*n*	%	*n*	%
	32	74.4	10	23.3	1	2.3	0	0

Table 2

Means and Standard Deviations for Scales

	n	LSRP Total	Number of Correct Responses	Reaction Time	MCSDS Total
		M(S.D.)	*M*(S.D.)	*M*(S.D.)	*M*(S.D.)
Total sample	43	52.4 (8.3)	59.3 (9.1)	1972.5 (434.7)	20.65 (3.0)
White	9	50.3 (5.7)	60.2 (7.2)	2088.6 (359.1)	20.8 (2.2)
Black	11	53.6 (10.3)	64.4 (7.9)	1655.1 (307.1)	20.6 (2.7)
Asian/Pacific Islander	4	56.8 (8.5)	58.5 (5.0)	2056.1 (328.7)	21.3 (5.1)
Hispanic	14	52.2 (8.2)	59.4 (10.4)	2150.9 (528.6)	20.1 (3.2)
Biracial	5	51.0 (8.9)	61.8 (10.6)	1896.0 (260.6)	21.6 (3.1)

Table 3

Regression Model Predicting LSRP from MCSDS, Overall Accuracy from Adj. LSRP

	B	SE	β	*p*
Step 1				
MCSDS	.717	.423	.256	.097
MODEL	$F(1,41) = 2.879$, $p = .097$, $R^2 = .066$			
Step 2				
Adj. LSRP	-.201	.166	-.186	.233
MODEL	$F(1,41) = 1.465$, $p = .233$, $R^2 = .034$			

Table 4

Regression Model Predicting Accuracy for Matched Race

	B	SE	β	*P*
Adj. LSRP	-.129	.117	-.251	.286
MODEL	$F(1,18) = 1.209$, $p = .286$, $R^2 = .063$			

Table 5

Regression Model Predicting Accuracy for Unmatched Race

	B	SE	β	*P*
Adj. LSRP	-.061	.178	-.080	.736
MODEL	$F(1,18) = .117$, $p = .736$, $R^2 = .006$			

Table 6

Regression Model Predicting Overall Speed

	B	SE	β	*P*
Adj. LSRP	6.708	8.415	.124	.430
MODEL	$F(1,41) = .636$, $p = .430$, $R^2 = .015$			

Table 7

Regression Model Predicting Speed for Matched Race

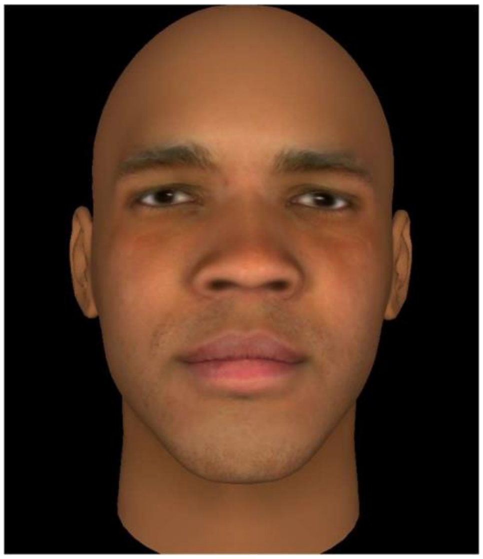
	B	SE	β	*P*
Adj. LSRP	-19.178	10.036	-.411	.072
MODEL	$F(1,18) = 3.652$, $p = .072$, $R^2 = .169$			

Table 8

Regression Model Predicting Speed for Unmatched Race

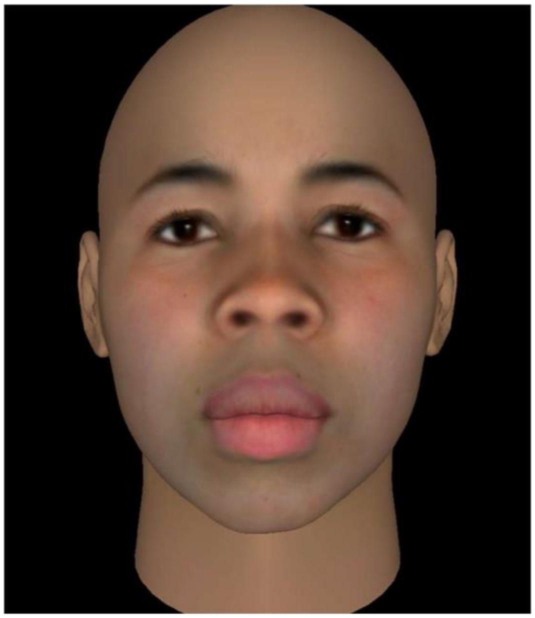
	B	SE	β	*P*
Adj. LSRP	-12.937	12.515	-.237	.315
MODEL	$F(1,18) = 1.069$, $p = .315$, $R^2 = .056$			

Appendix A



Black male –sad expression

White male – fearful expression



Black female – neutral expression

White female – fearful expression