Exploring the Modulation Effects of One’s Self-Concept, Depressive Traits, and Autistic Traits on a Self-Face Advantage.

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Introduction

- Self-face advantage (SFA) faster recognition to a self-face than to a stranger’s or a familiar face (Keyes & Brady, 2010; Tong & Nakayama, 1999).

  - Independent self-concept (Westerners): emphasis on the self
  - Interdependent self-concept (East Asians): emphasis on the interconnectedness with others (Kawoh & Shin, 2003; Nisbett, 2003)

Depression / Depressive Traits

Clinically diagnosed depressed individuals:
- Show an excessive self-focus (Lao & Li, 2020; Nisbett, 2003)
- Avoid positive self-referential stimuli (Baker et al., 2015; Quowdo et al., 2018).

ASD / ASD Traits

Clinically diagnosed ASD individuals:
- Might have impaired or delayed self-concept (Lombardo et al., 2010; Shin et al., 2003)
- Show reduced self-reference effect (Luo, 2010)

- Explored if a weaker/no SFA would be observed in
  - Individuals with a more interdependent self-concept style (Exp. 1)
  - Individuals with higher depressive trait and higher autistic trait (Exp. 2)

Methods

- 56 Malaysian Chinese (Exp. 1); 110 Malaysian Chinese (Exp. 2)
- Recruited in pairs (matched on age, gender, race)
- Friendship duration: ≥6 months; met ≥ once a week.
- Faces of 3 identities (self (SF), friend (FF), and unfamiliar UF)
- In 5 different expression (A, O, E, neutral, and happy)
- Cropped based on individual contours and converted to grayscale

A) Visual Search Task:
- 3 target blocks (SF, FF, and UF)
- Each block: 40 target present trials & 40 target absent trials

B) Questionnaires:
- Exp 1: Self-Construal Scale (SCS)
- Exp 2: Centre of Epidemiologic Studies Depression Scale (CES-D) and Autism Spectrum Quotient – Short (AQ-28)

Findings

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<tr>
<th>Table 1 Correlation of SFA and SCS Subscale Scores</th>
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<td>SF - FF Pearson’s r</td>
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<td>SF - UF Pearson’s r</td>
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<td>FF - UF Pearson’s r</td>
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Correlation of SFA and CES-D scores:

- r = .043, p = .66

Correlation of SFA and AQ-28 scores:

- r = .065, p = .50

Conclusion

1. No evidence of a SFA for Malaysian Chinese participants (i.e., no significant difference in search speed & accuracy between self-face and friend’s face)
   - But self-concept could not fully account for the SFA (i.e., SFA did not correlate with scores on either subscales in the SCS questionnaire)
2. The individual differences in demonstrating for a processing advantage of the own face is not modulated by depressive personality traits and autistic traits.
   - Individuals on both the lower and higher end across the depressive and autistic traits continuum showed an SFA.