The Role of Attachment Style in the Holistic Perception of Expression

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Introduction

- Attachment theory proposes that early life interactions with parental figures will establish perceptions and beliefs of the self and others (Bowlby, 1969; Mikulincer & Shaver, 2007).
- Attachment style conceptualizes a two-dimensional spectrum of emotion regulation capacities (Mikulincer & Shaver, 2007).

Methodology

- Participants:
  - neuropathological University of Victoria students were recruited from a voluntary participation pool
  - N=61
  - 10 male participants
  - M=20.31 years (SD = 2.65)
- Attachment Style:
  - Revised Adult Attachment Style Questionnaire (RAAS), close relationships version, was administered to participants (Collins, 1996).
  - scores for dimensions of avoidant and anxious attachment style were created for each participant (range=1-5)

- Fixation Arrow (F), Study Face (S), Mask (M) = 500 ms
  - 500 ms, 17, 50, or 250 ms
  - 500 ms, 5000 ms

- To measure the relationship between attachment style and holistic processing, we created holistic facilitation and holistic interference scores.

Results: Attachment Style

- Accuracy analysis showed significant main effects of SOA, expression, and condition (p<.001)
- Two-way interactions between condition and expression; SOA and expression, were significant (p<.001)
- A three-way interaction between condition, expression, and SOA was significant (p<.001)

- Response time analysis showed significant main effects of expression (p<.001) and SOA (p=.004)
- The two-way interaction of expression and condition was significant (p=.03), summarized in Figure 4.

Discussion

- Holycongruent and incongruent expressions showed holistic processing, as evidenced by their differences in accuracy compared to the neutral/isolated conditions.
- These results contrast with the findings of Tanaka et al. (2012), who did not find evidence of holistic processing in angry congruent expressions.
- While happy incongruent expressions showed holistic processing, we did not find evidence for holistic processing in happy congruent expressions (i.e. there was no difference in accuracy or response time).
- These results suggest that happy expressions employ a more analytic-based approach, requiring only the visual meaning to accurately identify a happy expression.

Composite Expression Task

- A more anxious attachment style correlated with slower response times on incongruent expression trials, suggesting increased susceptibility to holistic interference.

Holistic Interference

- A reliable relationship was found between anxious attachment style score and percentage of response time increase in holistic interference (Rho = 0.33, p<.04).
- There was no relationship between avoidant attachment style score and the holistic interference measure.

Conclusions

- Anger expressions are processed holistically, while happy expressions are processed both holistically and analytically.
- The hyper-activating strategies used by an anxious attachment style in expression perception may involve holistic mechanisms of expression perception.