

# Seeing Eye to Eye: The Relationship Between Reciprocal Eye Gaze and Callous-Unemotional Traits in Young Children



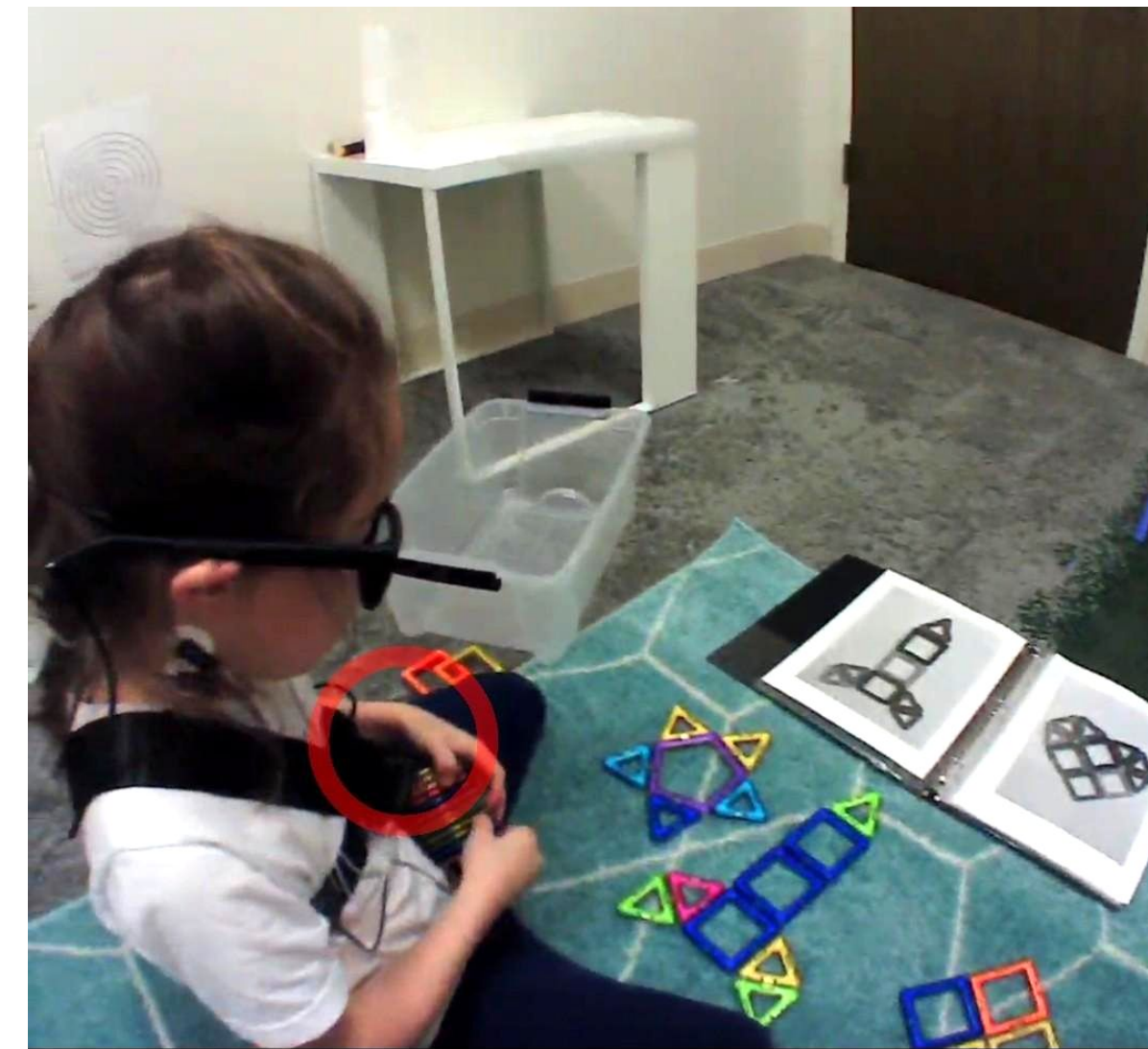
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## Introduction

- **Callous-unemotional (CU) traits:**
  - Low empathy, low guilt, poor emotion recognition, & reduced sensitivity to punishment<sup>1</sup>
  - Predict severe behavior problems & aggression in childhood
  - Greater risk for crime & antisocial behavior in adulthood
- Children with high CU traits are less responsive to parenting strategies and interventions, which may stem from an initial failure to attend to salient social-emotional stimuli.<sup>2</sup>
- Children high in CU traits pay less attention to the eye region than controls, which may explain deficits in fear recognition.<sup>3</sup>

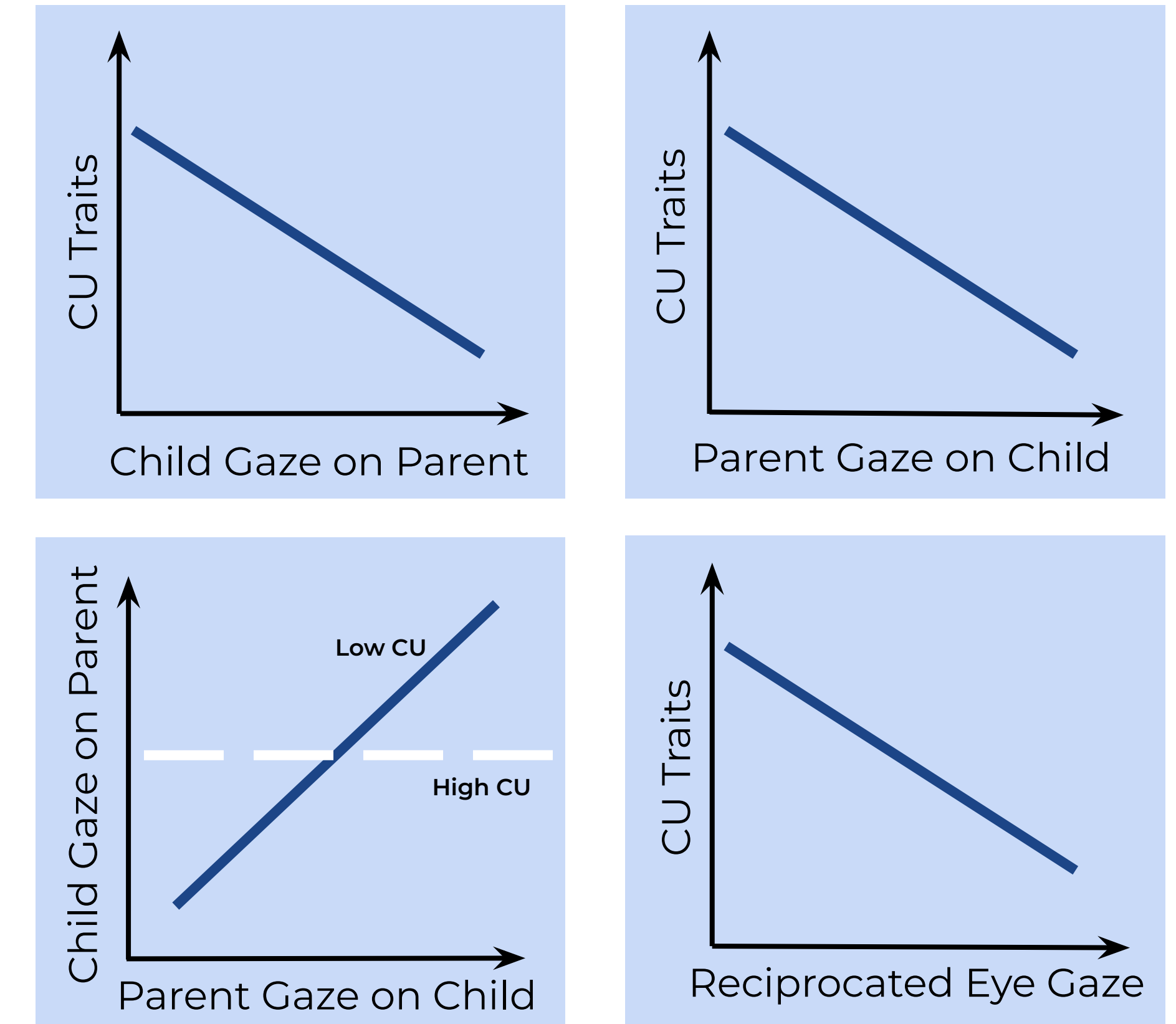
This study is the first to examine the role of eye contact and saccades during naturalistic parent-child interactions in relation to CU traits.



Mobile eye tracking glasses record the perspective of the wearer, as well as the precise location of where the eyes are focusing.



## Expected Findings



## Methods and Procedures

- **Eye Tracking:**
  - Parent & child wear eye tracking glasses that record body language, facial expressions, & eye contact
- **Book Reading:**
  - Parent reads *I Walk with Vanessa* to child
  - Book has no words, parent must narrate
- **Magnets:**
  - Child is given a set of magnets & a book with shapes to replicate (see right)
  - Parent can help but task is intended for child
- **Conversation:**
  - Parent & child discuss a negative memory, a positive memory, and all the things they love about each other

## Implications and Applications

- **Clinical:**
  - eye contact, saccades, and eye gaze synchrony can be used to identify & treat conduct problems and CU traits in children (e.g. tailored parenting strategies)
- **Future directions:**
  - Examining eye movement in peer interactions can be used to curate interventions and naturalistic treatments
  - The mobility of the glasses allows investigation in widespread social contexts (classrooms, public spaces, etc.)

1. Waller, R., Wagner, N. J., Barstead, M. G., Subar, A., Petersen, J. L., Hyde, J. S., & Hyde, L. W. (2020). A meta-analysis of the associations between callous-unemotional traits and empathy, prosociality, and guilt. *Clinical Psychology Review*, 75, 101809. <https://doi.org/10.1016/j.cpr.2019.101809>

2. 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 & Adolescent Psychiatry*, 47(4), 455-463. <https://doi.org/10.1097/chi.0b013e31816407f1>

3. Dadds, M. R., English, T., Wimalaweera, S., Schollar-Root, O., & Hawes, D. J. (2019). Can reciprocated parent-child eye gaze and emotional engagement enhance treatment for children with conduct problems and callous-unemotional traits: A proof-of-concept trial. *Journal of Child Psychology and Psychiatry*, 60(6), 676-685. <https://doi.org/10.1111/jcpp.13023>