Comparison of Emotion Co-Regulation Between Families of Children with Autism Spectrum Disorder and Families of Typically Developing Children

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Introduction

- Individuals with Autism Spectrum Disorder (ASD) face neurodevelopmental deficits in areas of social interaction, communication skills, and cognitive functioning.
- Emotion regulation, the process of influencing and manipulating expressed emotions on a moment-to-moment basis, is postulated to play a crucial role in the development of social interaction skills (Dodge & Garer, 1991; Lemerise & Arsenio, 2000).
- Parents play an important role in the development of emotion regulation capabilities (Sroufe, 1996), but little is known about emotion regulation between parents and young children with ASD.

Objectives

- To apply a novel dynamic systems approach to examining emotion co-regulation of mother-child interactions
- To compare the differences in emotion co-regulation between families of children with typical development (TD) and children with ASD

Participants

- Videotapes of mother-child dyads were selected from a prior study of 92 families
  - o 60 families of children with ASD: diverse in terms of ethnicity, education and household income
  - o 32 families of TD children: primarily White/Caucasian, well-educated, but diverse in household income
- Coding was based on a 10-minute **Three Boxes** semi-structured play session for each mother-child interaction (Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004).

Methods

Dyadic Microanalysis

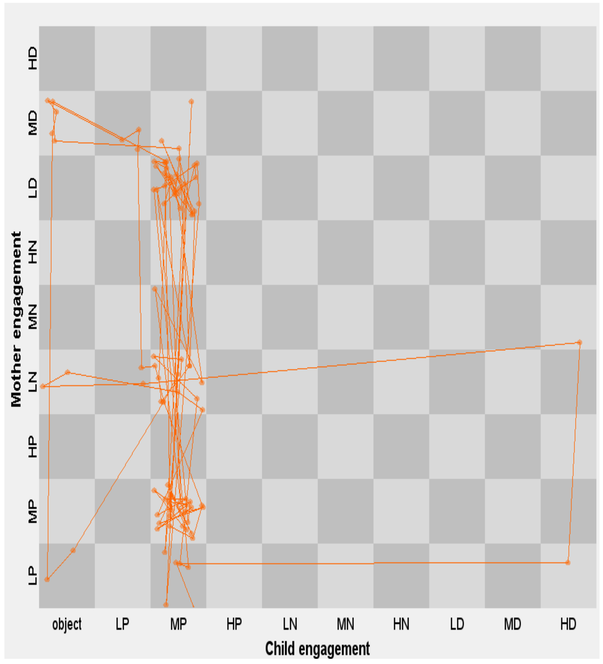
- A behavioral coding scheme was developed to assess emotion regulation during dyadic play: **positive engagement, negative engagement, and disengagement**.
- Mothers and children were coded separately by teams of trained coders using an observation software I**NTERACT** 9.47 (Mangold, 2007). Inter-rater reliability was established.
- Coded and merged observation data were exported to the **State Space Grid** software (SSG; Lamey, Hollenstein, Lewis & Grancic, 2004).

Group 1						
Set 1	00:00:00:00	00:10:29:00				
1	00:00:00:00	00:00:04:29	6	high NE	1	low PE
2	00:00:05:00	00:00:09:29	6	high NE	1	low PE
3	00:00:10:00	00:00:14:29	6	high NE	4	low NE
4	00:00:15:00	00:00:19:29	6	high NE	4	low NE
5	00:00:20:00	00:00:24:29	6	high NE	4	low NE
6	00:00:25:00	00:00:29:29	6	high NE	4	low NE
7	00:00:30:00	00:00:34:29	1	low PE	4	low NE
8	00:00:35:00	00:00:39:29	8	moderate DE	4	low NE
9	00:00:40:00	00:00:44:29	8	moderate DE	4	low NE
10	00:00:45:00	00:00:49:29	8	moderate DE	4	low NE
11	00:00:50:00	00:00:54:29	8	moderate DE	4	low NE
12	00:00:55:00	00:00:59:29	8	moderate DE	1	low PE
13	00:01:00:00	00:01:04:29	0	object Engagement	1	low PE
14	00:01:05:00	00:01:09:29	0	object Engagement	4	low NE
15	00:01:10:00	00:01:14:29	0	object Engagement	4	low NE
16	00:01:15:00	00:01:19:29	0	object Engagement	5	moderate NE
17	00:01:20:00	00:01:24:29	4	low NE	1	low PE
18	00:01:25:00	00:01:29:29	4	low NE	1	low PE
19	00:01:30:00	00:01:34:29	1	low PE	1	low PE
20	00:01:35:00	00:01:39:29	1	low PE	1	low PE
21	00:01:40:00	00:01:44:29	1	low PE	2	moderate PE
22	00:01:45:00	00:01:49:29	1	low PE	5	moderate NE
23	00:01:50:00	00:01:54:29	1	low PE	1	low PE
24	00:01:55:00	00:01:59:29	1	low PE	1	low PE
25	00:02:00:00	00:02:04:29	8	moderate DE	7	low DE
26	00:02:05:00	00:02:09:29	7	low DE	7	low DE

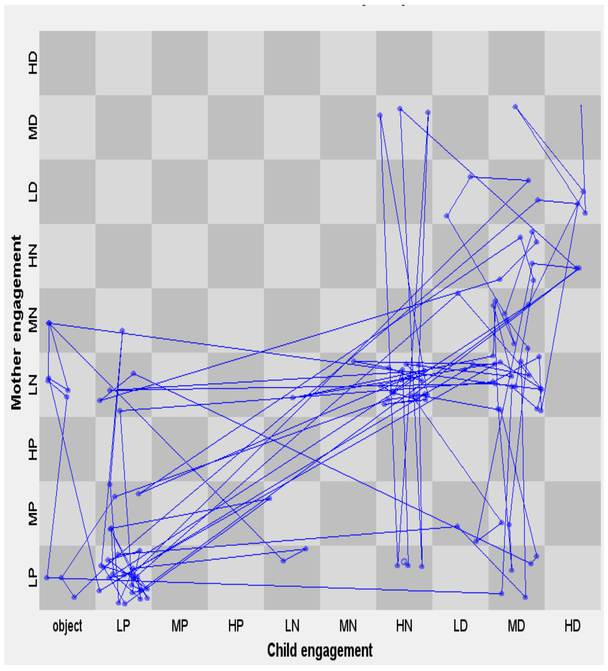
GridWare
State Space Grids

Results

State Space Grid of Emotion Co-Regulation of Mother and Child with TD



State Space Grid of Emotion Co-Regulation of Mother and Child with ASD



L: Low; M: Moderate H: High
P: Positive engagement N: Negative engagement D: Disengagement

Implications

- The findings provide insight into adaptive and maladaptive emotion regulation processes in the familial interactions of children with Autism Spectrum Disorder.
  - ***Theoretically***, the findings broaden the research perspective to value moment-to-moment approaches when studying the mechanisms in relationship patterns.
  - ***Clinically***, the knowledge generated from the current project may lead to advances in family interventions by integrating emotion regulation into therapy.

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