

# When Neurotypes Align: Broader Autism Phenotype Traits and Parent-Child Interaction Quality in Autistic Families

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## Introduction

- Parents of autistic children show elevated rates of the broader autism phenotype (BAP) — autistic-like traits including aloofness, pragmatic language differences, and preference for routine.<sup>1,2</sup>
- BAP traits have traditionally been framed as risk factors for parenting quality, yet evidence linking BAP to observed interaction outcomes is mixed.<sup>3</sup>
- The double empathy problem posits that communication breakdowns between autistic and non-autistic individuals arise from neurotype *mismatch* rather than deficits in either party.<sup>4</sup>
- Autistic individuals communicate more effectively and transfer information more successfully with other autistic individuals than with non-autistic partners.<sup>5</sup>
- Applied to parent-child dyads, neurotype concordance — when parent and child share autistic-like traits — may facilitate rather than impair interaction quality.
- Yet no study has examined whether the association between parental BAP traits and parent-child interaction quality varies as a function of child autism severity

**This exploratory study examines whether parental BAP traits moderate associations between child autistic traits and observed parent-child interaction quality, using a neurodiversity-affirming framework to interpret context-dependent effects.**

## Methods and Participants

### Participants

- 88 families with an autistic child (M age = 11.95 years, SD = 3.64; 78.6% male)
- 84 mothers and 83 fathers participated as part of a longitudinal study of family life in autism

### Measures

- BAP:** Broader Autism Phenotype Questionnaire<sup>1</sup> (BAPQ) — Aloof, Pragmatic Language, and Rigid subscales completed separately by each parent
- Child autistic traits:** Social Responsiveness Scale<sup>6</sup> (SRS) — completed separately by each parent
- Parent-child interaction quality:** 7-minute semi-structured play interactions video-recorded and coded across 16 dimensions of parent behavior (e.g., positive scaffolding, warmth, responsiveness), child behavior (e.g., initiation, verbalizations), and dyadic quality (e.g., cooperation, conflict, reciprocity)

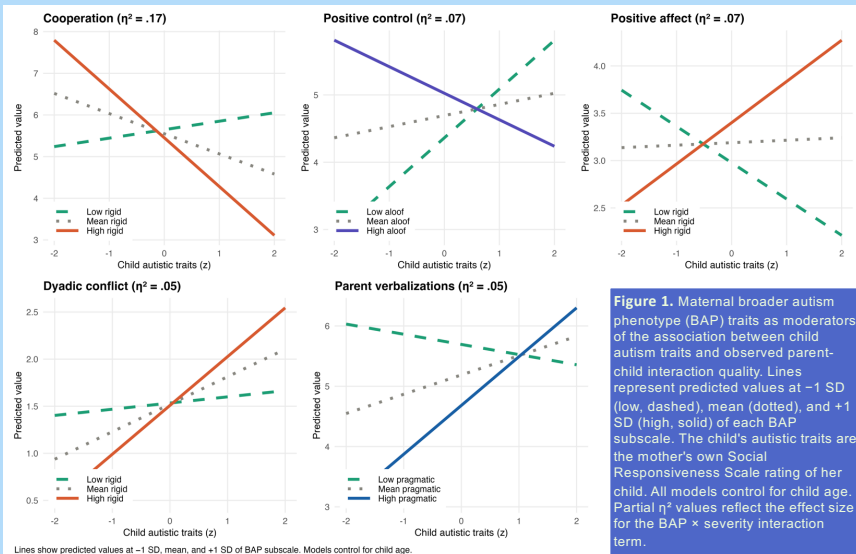
### Analytic Approach

- Moderation analyses tested whether each BAP subscale × child SRS interaction predicted each interaction outcome, controlling for child age
- Models run separately for mothers and fathers
- Effect sizes (partial  $\eta^2$ ) interpreted alongside p-values given modest sample size

## Results

Maternal BAP traits moderated associations between child autistic traits and observed interaction quality across five outcomes (see Table 1 and Figure 1). Effect sizes ranged from small to medium to large ( $\eta^2 = .05-.17$ ). No significant interactions emerged for paternal BAP traits across any outcome (all  $\eta^2 \leq .03$ ).

The pattern of moderation was consistent across outcomes: low-BAP mothers showed adaptive or neutral slopes as child autistic traits increased, while high-BAP mothers showed amplified effects — both positive (verbalizations, positive affect) and negative (cooperation, conflict).



**Table 1. Simple Slopes Analysis**

Outcome	BAP moderator	Low BAP slope	Mean BAP slope	High BAP slope	$\eta^2$
Cooperation	Rigid	0.18	-0.51*	-1.20**	.17
Positive control	Aloof	0.73*	0.17	-0.39	.07
Positive affect	Rigid	-0.35	0.06	0.48	.07
Dyadic conflict	Rigid	0.07	0.30*	0.53**	.05
Parent verbalizations	Pragmatic	-0.15	0.35*	0.84*	.05

\*p < .05, \*\*p < .01. Fathers: no significant interactions (all  $\eta^2 \leq .03$ ).

## Discussion

- Consistent with the double empathy problem (Milton, 2012), the link between child autism traits and interaction quality depended on the parent's neurotype.
- Low-aloof mothers increased positive scaffolding with greater child autism traits; high-aloof mothers did not, indicating that shared aloofness may reflect a different interaction style rather than a parenting deficit.
- High-rigid mothers' cooperation declined as autism traits increased, while low-rigid mothers maintained cooperation.
- High-pragmatic-language mothers increased verbalizations, and high-rigid mothers showed more positive affect as traits increased, possibly indicating compensatory adaptations.
- Paternal BAP traits showed no effects, suggesting that these processes are specific to mothers or that differences in how BAP traits are expressed in parenting account for the lack of effects.
- Findings are exploratory and require larger samples and neuro-affirming observational coding for validation.

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