

Classroom Processes and Children's Temperament: Implications for Academic, Social, and Behavioral Outcomes

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Research Focus

Children's school success as a function of:

- supportive classroom processes
- “fit” between temperament and classroom environment

Temperament

Style of responding to the environment:

- Biologically based,
- Somewhat stable,
- Developmentally fluid,
- Multi-dimensional,
- Molded by environment.

Theoretical Foundation


- Bronfenbrenner's bioecological model
 - Microsystem – interactions (proximal processes) between the child and his/her immediate environment
- Ecological and Dynamic Model of Transition (Rimm-Kaufman & Pianta, 2000)
 - Transition to school environment

Three Studies

- *Child temperament, teacher-child interactions, and teacher-child relationships: A longitudinal investigation from first to third grade* (Rudasill, 2011)
- *Temperamental attention and activity, classroom emotional support, and academic achievement in third grade* (Rudasill, Gallagher, & White, 2010)
- *Preschool pilot study examining links between temperament, classroom quality, and literacy and EF skill growth across the school year* (in progress)

NICHD Study of Early Child Care and Youth Development

- Large, longitudinal, national dataset with in-depth data on children's characteristics, and their environments from birth to age 15
- Involves parent surveys, child surveys, teacher/caregiver surveys, observations, lab tasks
 - Parent ratings of children's temperament at age 4 ½
 - Teacher ratings of student-teacher relationship
 - Time-sampled and global observations of classrooms



Child temperament, teacher-child interactions, and teacher-child relationships: A longitudinal investigation from first to third grade (Rudasill, 2011)

- Purpose:
 - Build on findings from a previous study (Rudasill & Rimm-Kaufman, 2009)
 - Predict *third grade* teacher-child relationship quality from early temperament and *first grade* teacher-child interactions and relationships

Methods

- Participants:

- 994 children from NICHD SECCYD

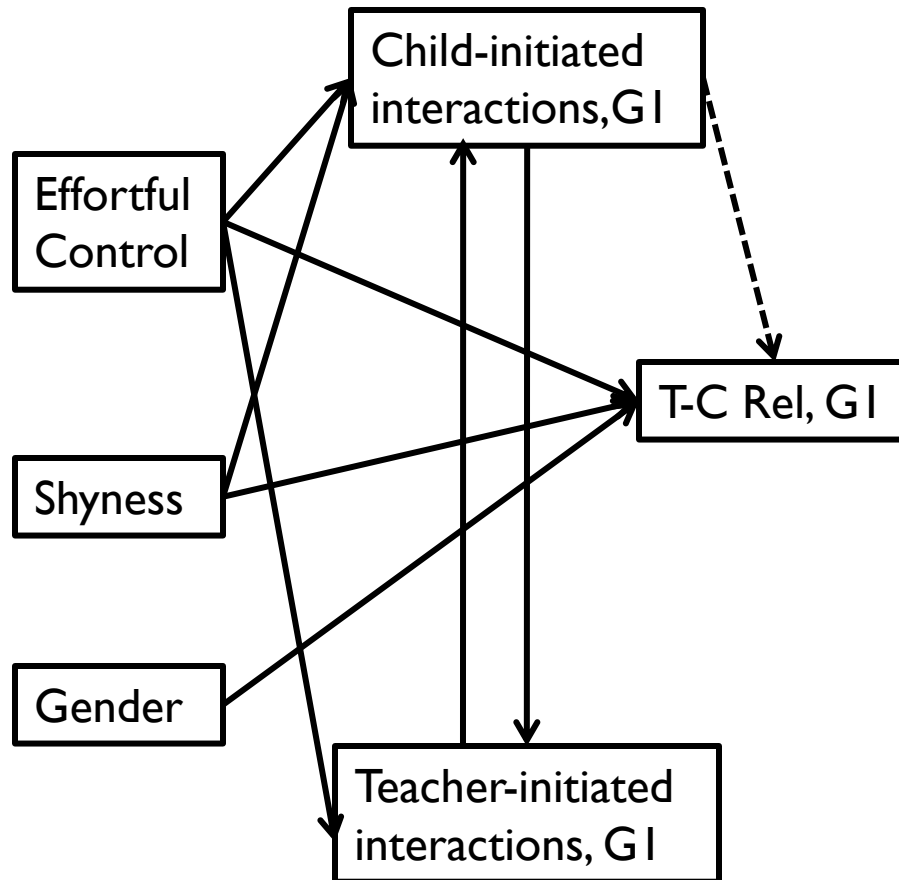
- Instruments:

- Children's Behavior Questionnaire (Rothbart, Ahadi, & Hershey, 1994)
- Student-Teacher Relationship Scale (Pianta, 2001)
- Time-sampled observations of classrooms

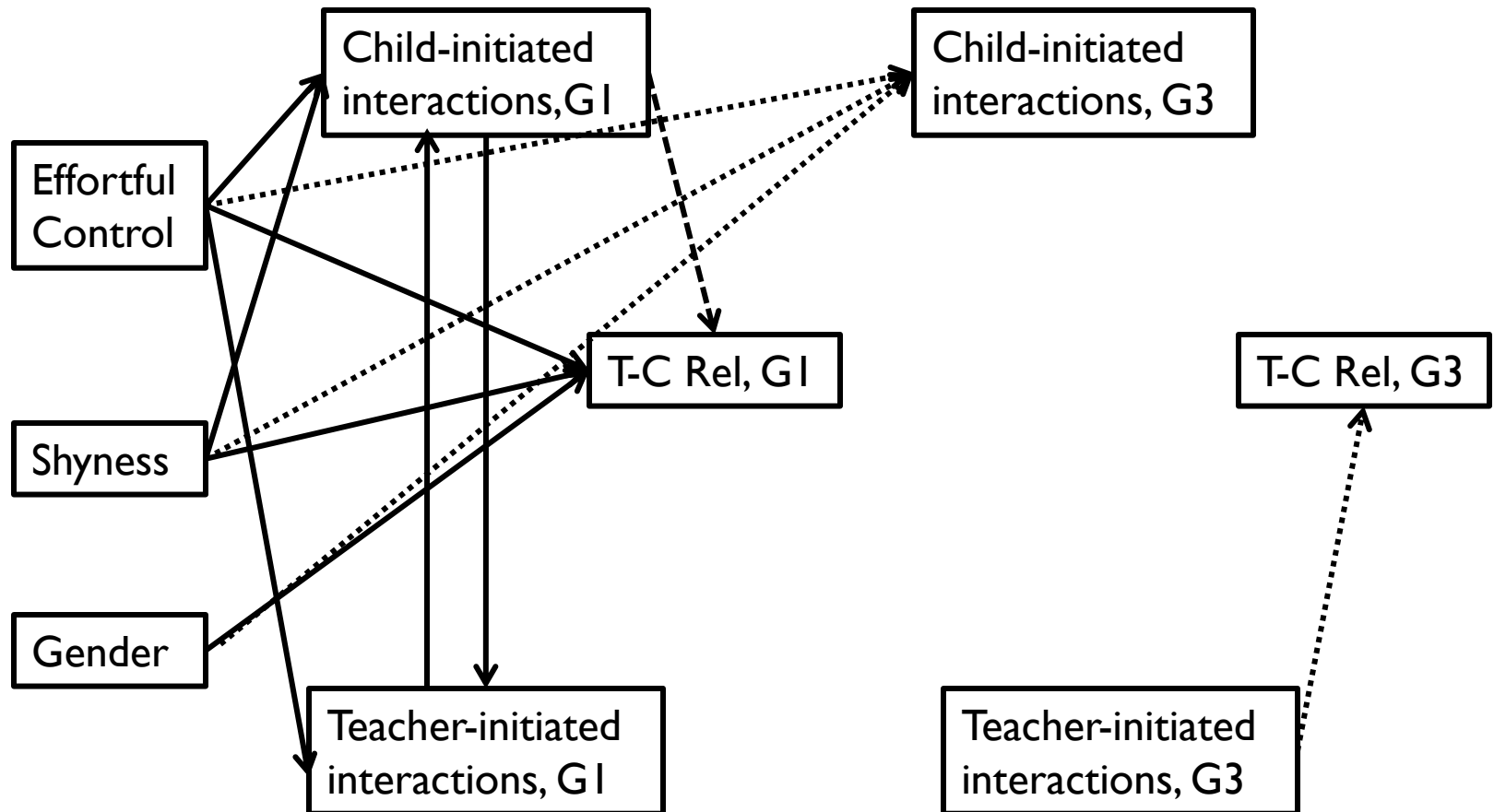
- Analyses:

- Path Analyses – Two models (Conflict & Closeness)
- Tests for mediation - Confidence intervals for distribution of product of the indirect effects

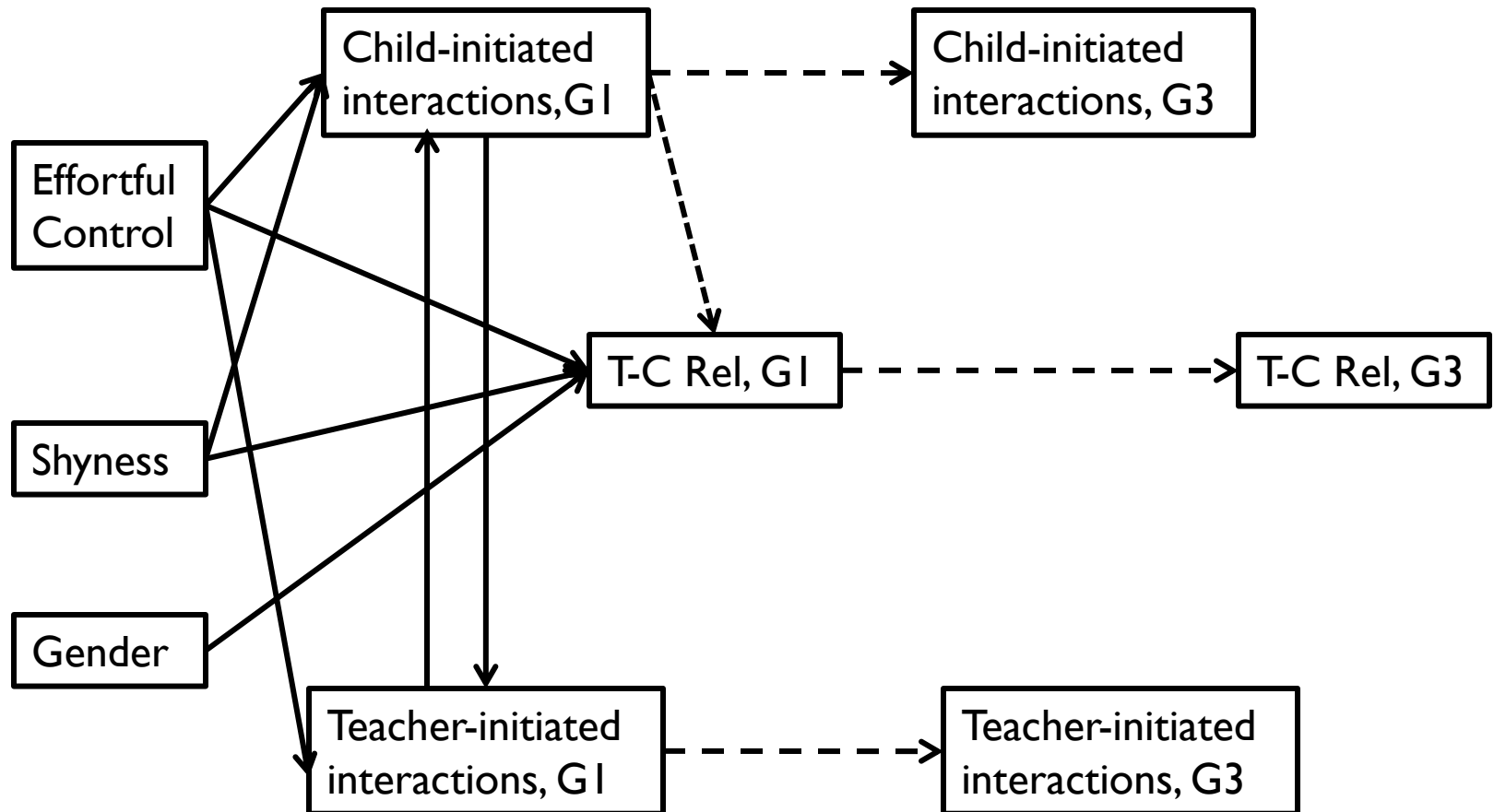
Findings from Previous Study



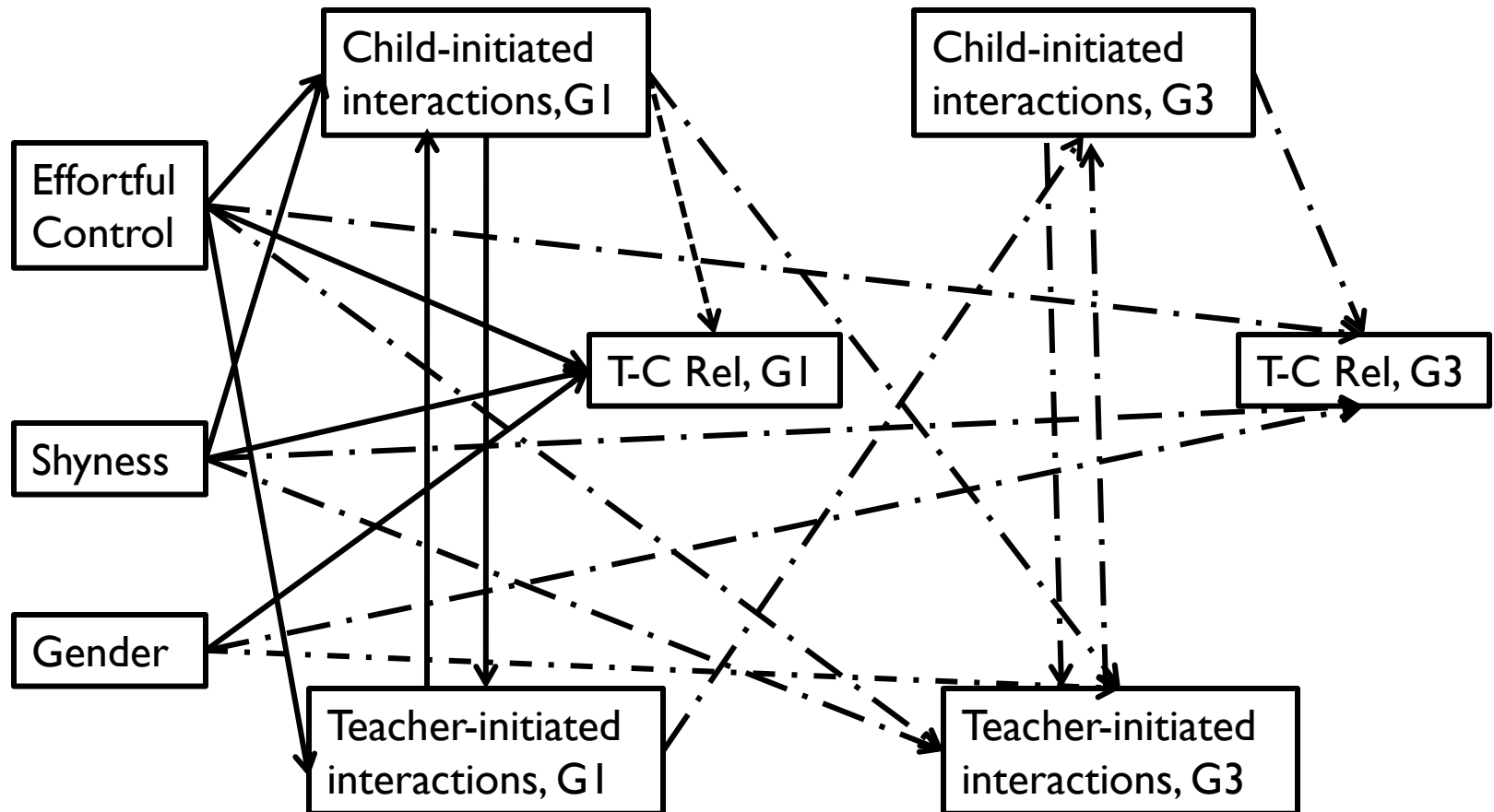
Hypothesis I



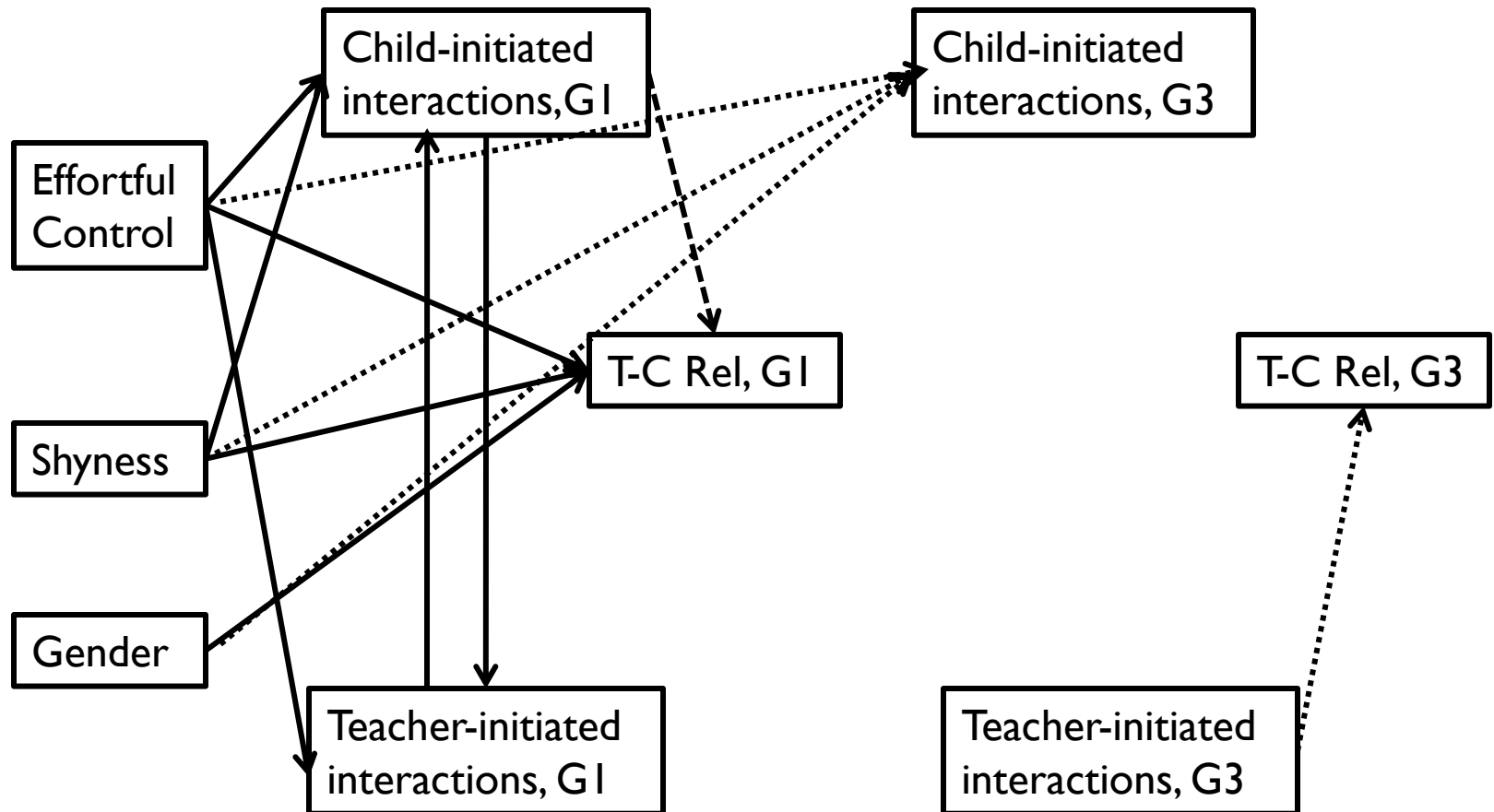
Hypothesis 2



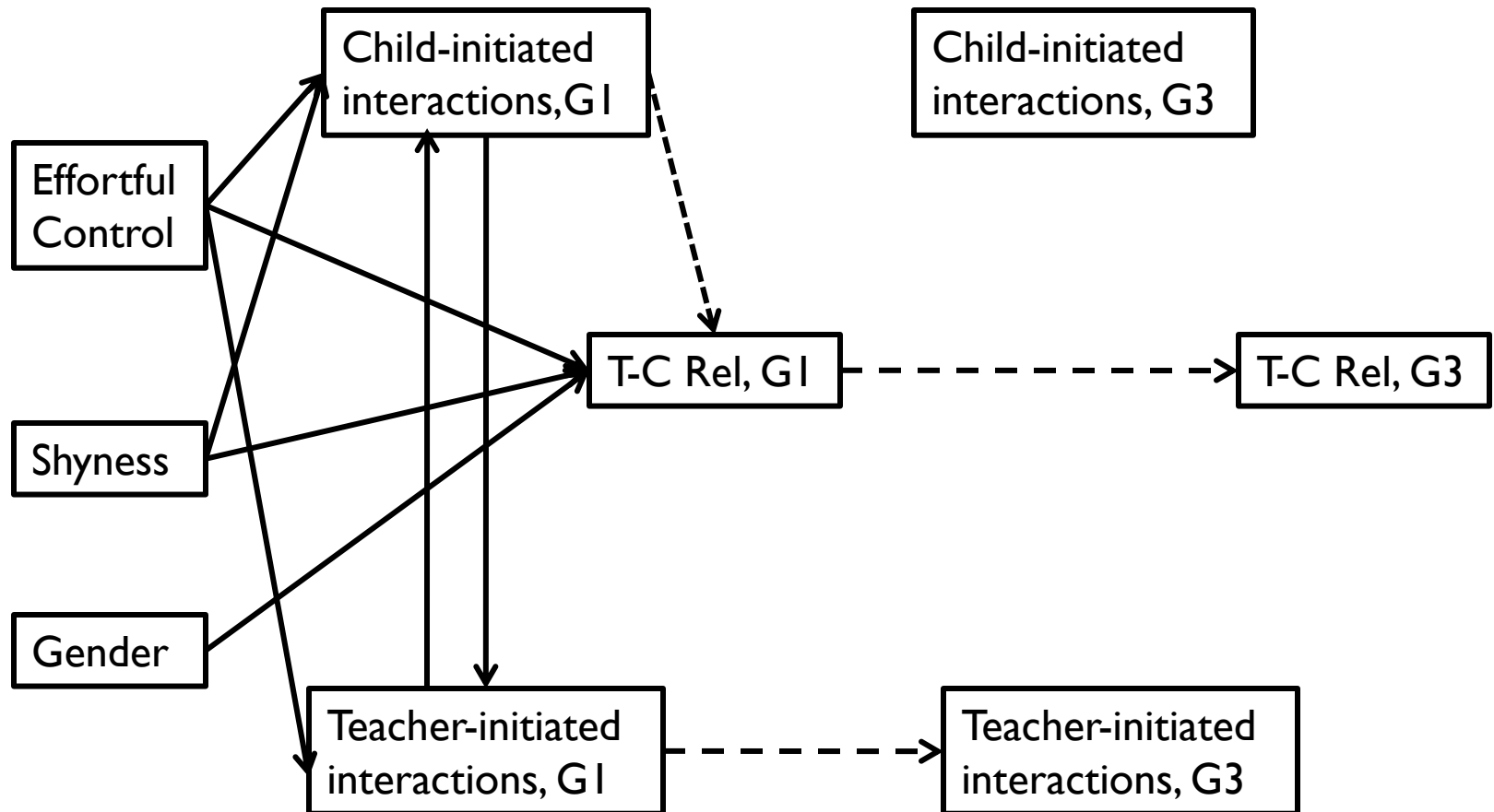
Hypothesis 3



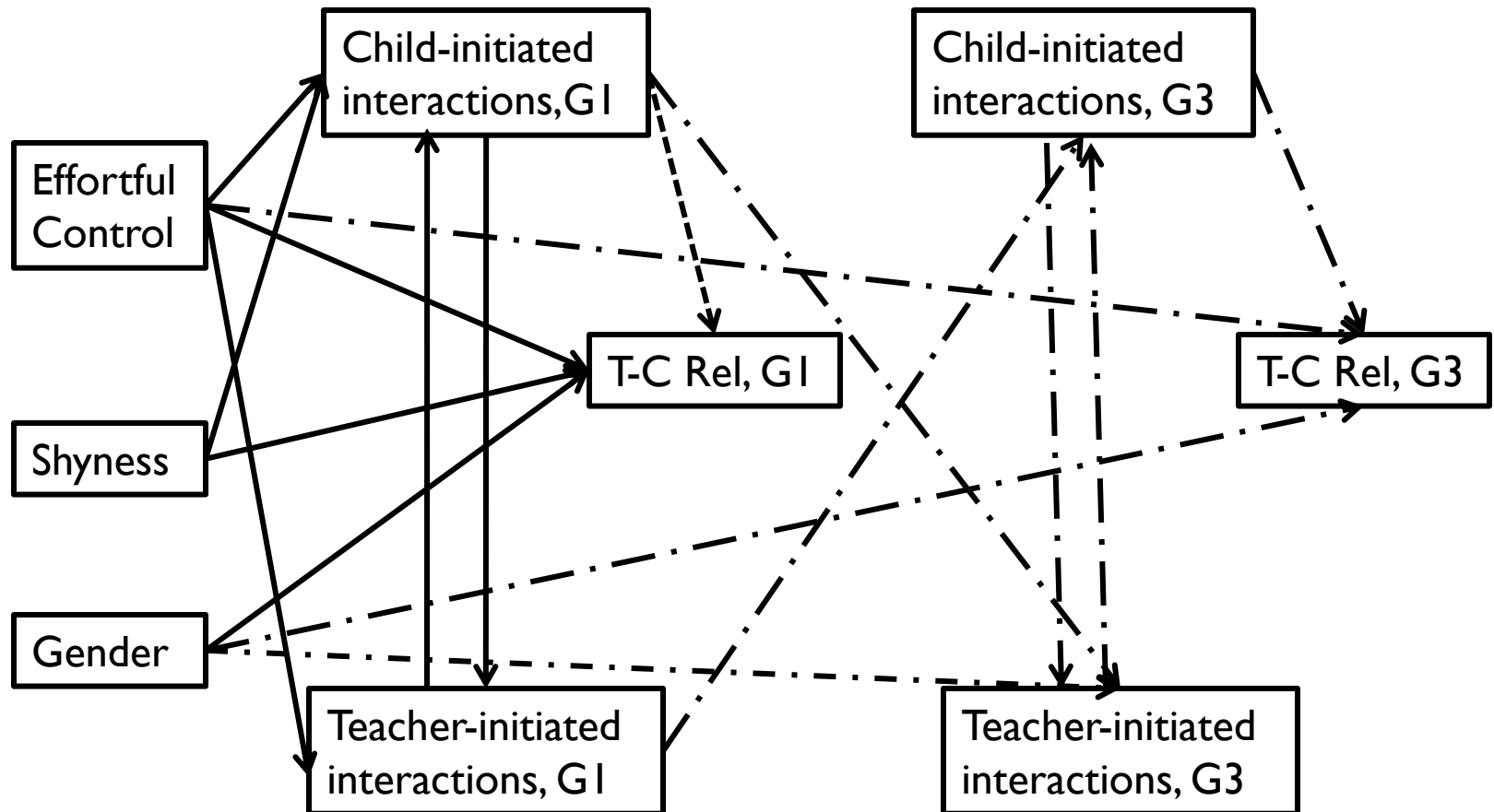
Results - Hypothesis I



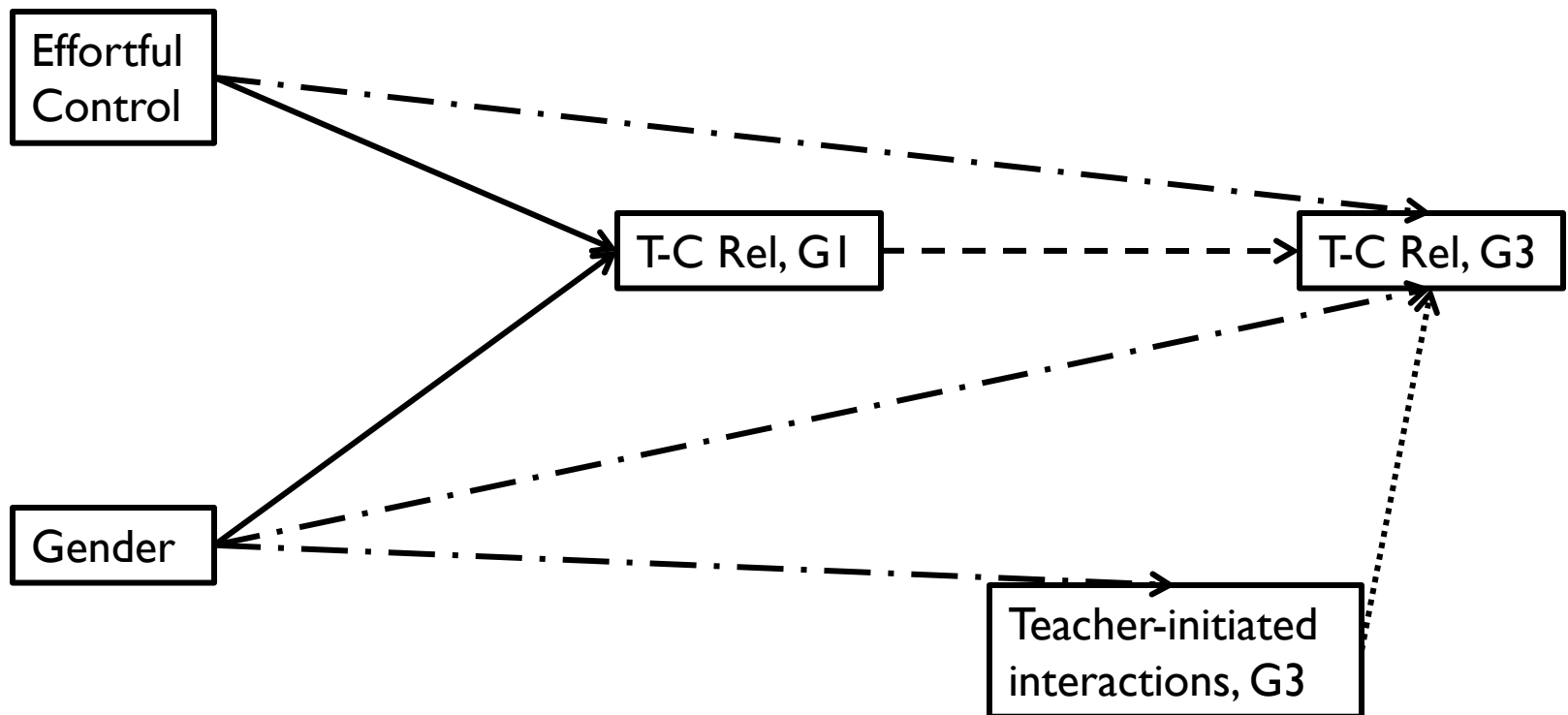
Results - Hypothesis 2



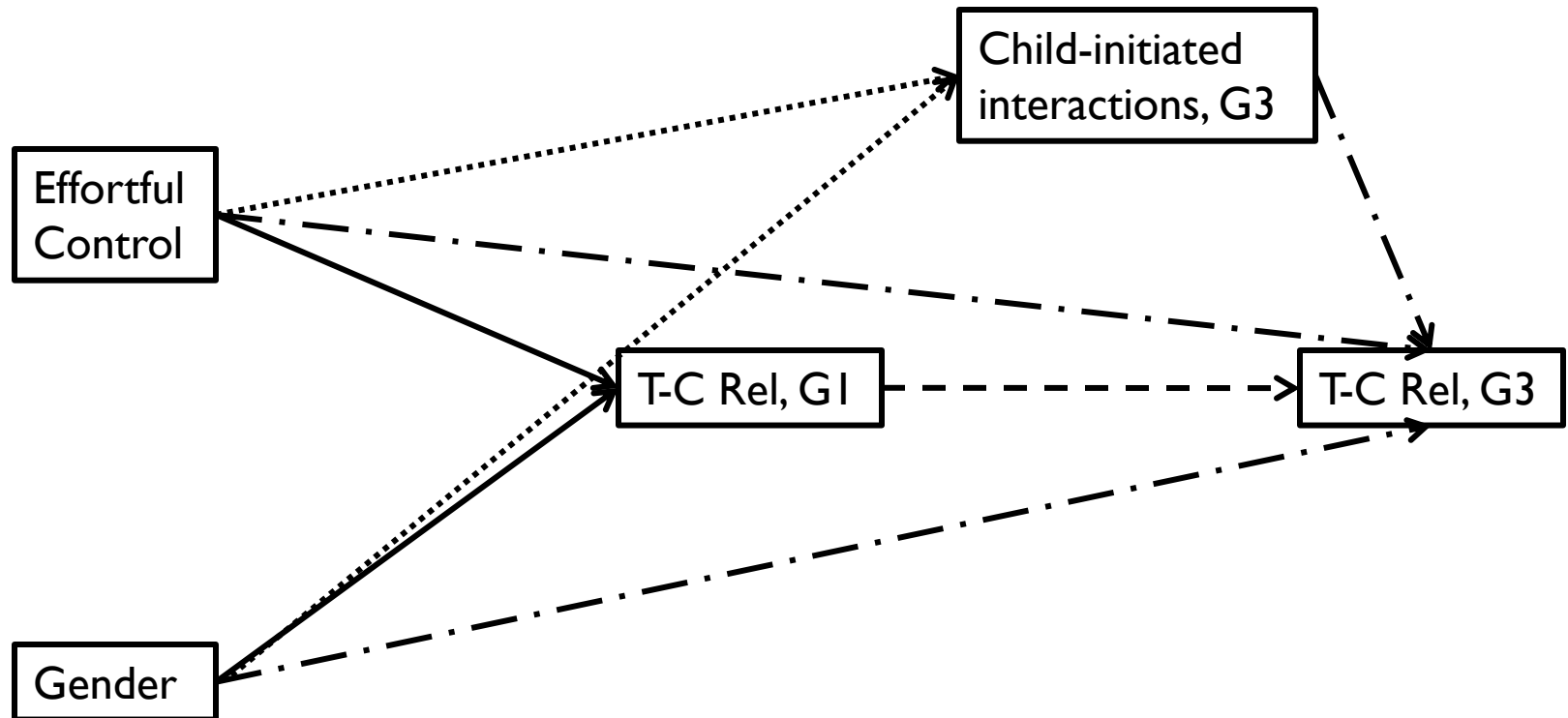
Results - Hypothesis 3



Mediation - Conflict



Mediation - Closeness



Conclusions

- Certain child characteristics seem to directly contribute to teacher-child relationship quality over the long-term
 - Effortful control
 - Gender
- Early teacher-child relationships and teacher and child behavior **CREATE** and **SUSTAIN** patterns across time



Temperamental attention and activity, classroom emotional support, and academic achievement in third grade (Rudasill, Gallagher, & White, 2010)

- **Purpose:**

- Understanding how temperamental attention and activity level and the emotional support of the classroom are associated with academic achievement

Methods

- Participants:

- 707 children from NICHD SECCYD

- Instruments:

- Children's Behavior Questionnaire (Rothbart, Ahadi, & Hershey, 1994)
- Global observations of classrooms
- Woodcock-Johnson Tests of Achievement (Woodcock & Johnson, 1989)

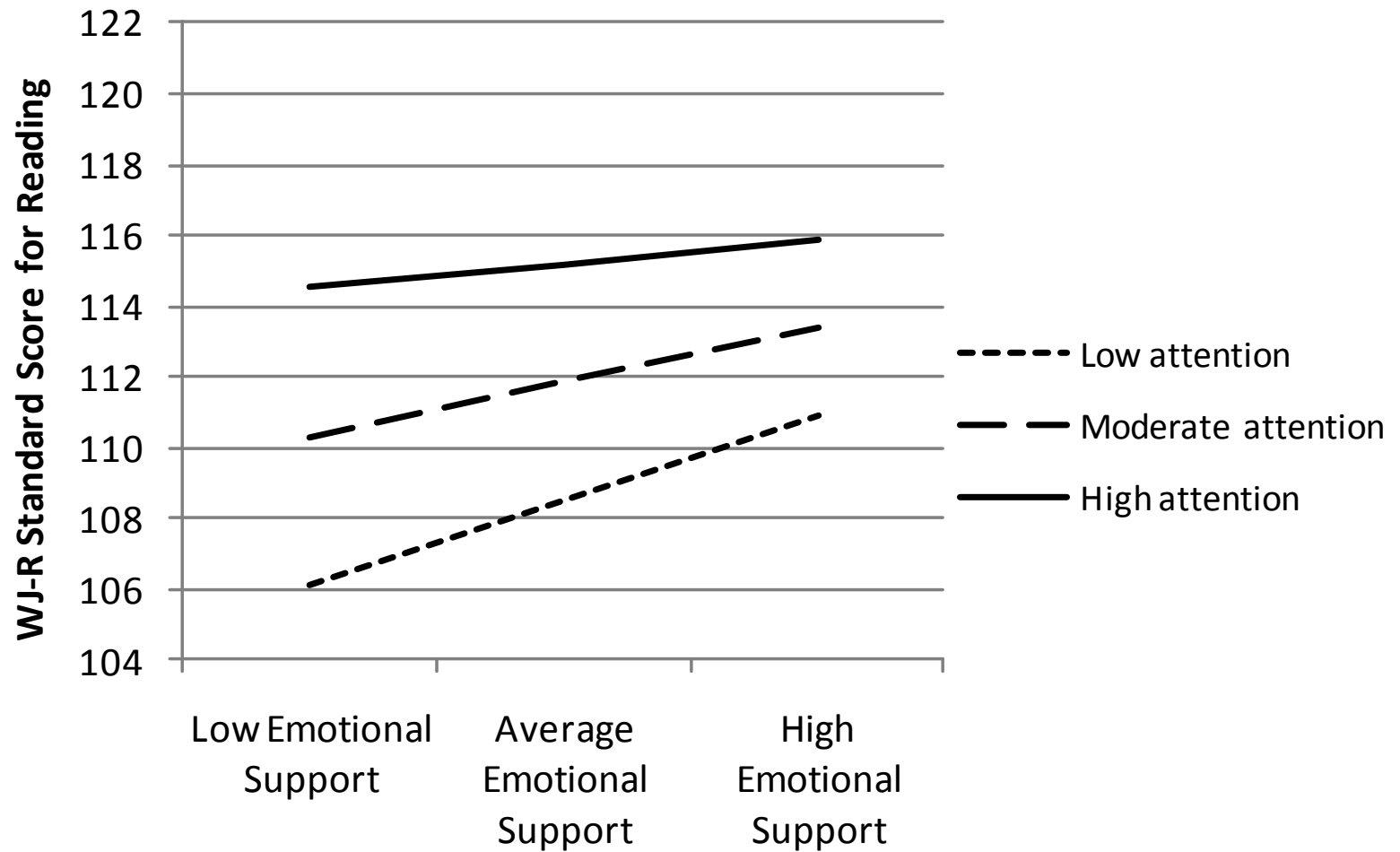
- Analyses:

- Hierarchical OLS regression
- Reading/Math achievement regressed on previous achievement, temperament, classroom emotional support, all two-way interactions

Findings

- Attention and activity → Reading and math achievement in 3rd grade
- 3rd grade classroom emotional support → Reading achievement in 3rd grade
- Classroom emotional support *moderated* associations between attention and reading and math achievement

Reaching achievement



Conclusions

- Children with poorer attention may:
 - benefit more from classroom emotional support than peers who attend well.
 - require more supportive settings to enhance their ability to benefit from classroom learning.

Limitations & next steps

- Secondary data analysis
 - → collect data with state of the art measures
- Limited diversity
 - → collect data from a diverse sample
- Correlational

Preschool Pilot Study


- 23 preschool classrooms in 9 preschools
- ~ 110 children 3 ½ to 5 years old
- Pre-post literacy and executive function skills
- Classroom quality using CLASS
- Parent and teacher ratings of temperament
- Student-teacher relationship quality

Preschool Pilot Study – Wave 2

- Follow children for a 2nd year of preschool
- Additional assessments
 - Teacher ratings of peer social behavior
 - Observations of children's interactions with peers, teachers, and tasks in the classroom (inCLASS)

Take Away Points

- 1. Children's temperamental characteristics have implications for their adjustment to the classroom environment.**
- 2. Warm, supportive, and responsive teaching practices may be particularly important for the success of children with more "spirited" temperamental characteristics.**
- 3. Teacher (and parent) awareness of the role of children's temperament on their school experiences is critical for maximizing fit between children and the classroom environment.**



Questions? Comments?