

Temperament and sleep in children: Investigating the directionality of associations.

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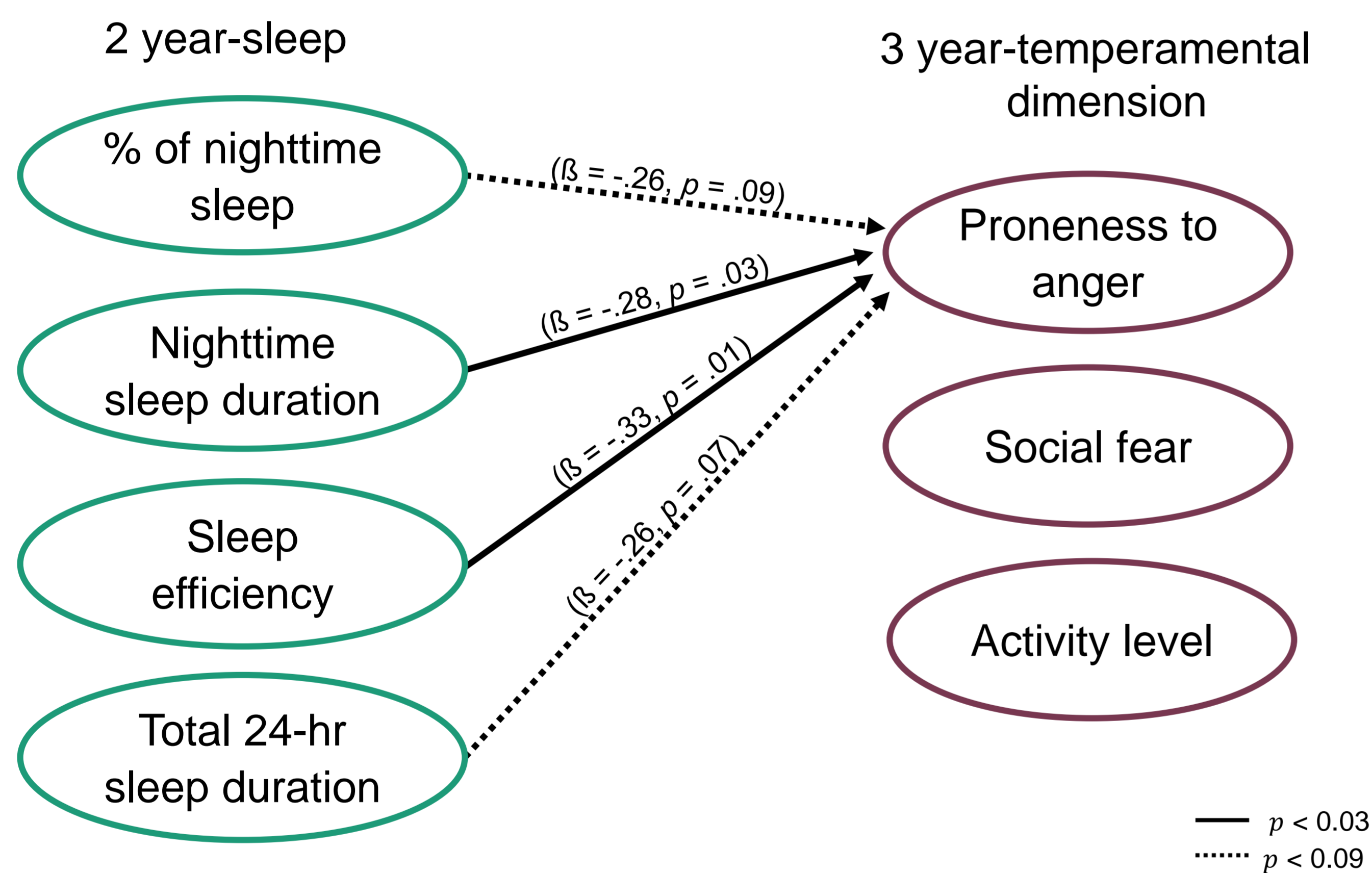
Introduction

- Although much research has been devoted to investigating the associations between children's sleep patterns and their temperament, the direction of these associations remains unclear (e.g., Sorondo & Reeb-Sutherland, 2015).
- Some studies suggest that sleep influences temperament, and others suggest the opposite direction.
- The lack of clarity is largely attributable to the absence of longitudinal studies with repeated assessments of both sleep and temperament, which could greatly contribute to establishing the temporal precedence between sleep and temperament.

Objective : To contribute knowledge on the reciprocal associations between sleep and temperament by assessing several dimensions of each at both 2 and 3 years of age, using an objective sleep measure and maternal reports of child temperament.

Results

Hierarchical regression analyses predicting 3 year-anger proneness from 2 year-sleep



Participants

2 years-old: 82 children (39 girls) 3 years-old: 63 children (32 girls)

Socio-demographic variables	SD	Mean
Mothers		
Age (yrs)	4.49	31.91
Education (yrs)	2.24	16.10
Ethnicity	1.13	1.27 (90.2% Caucasian)
Fathers		
Age (yrs)	5.03	33.87
Education (yrs)	2.76	15
Ethnicity	1.74	1.74 (79.3% Caucasian)
Annual family income	1.51	4.42 (\$60,000 to \$79,000)

Procedure

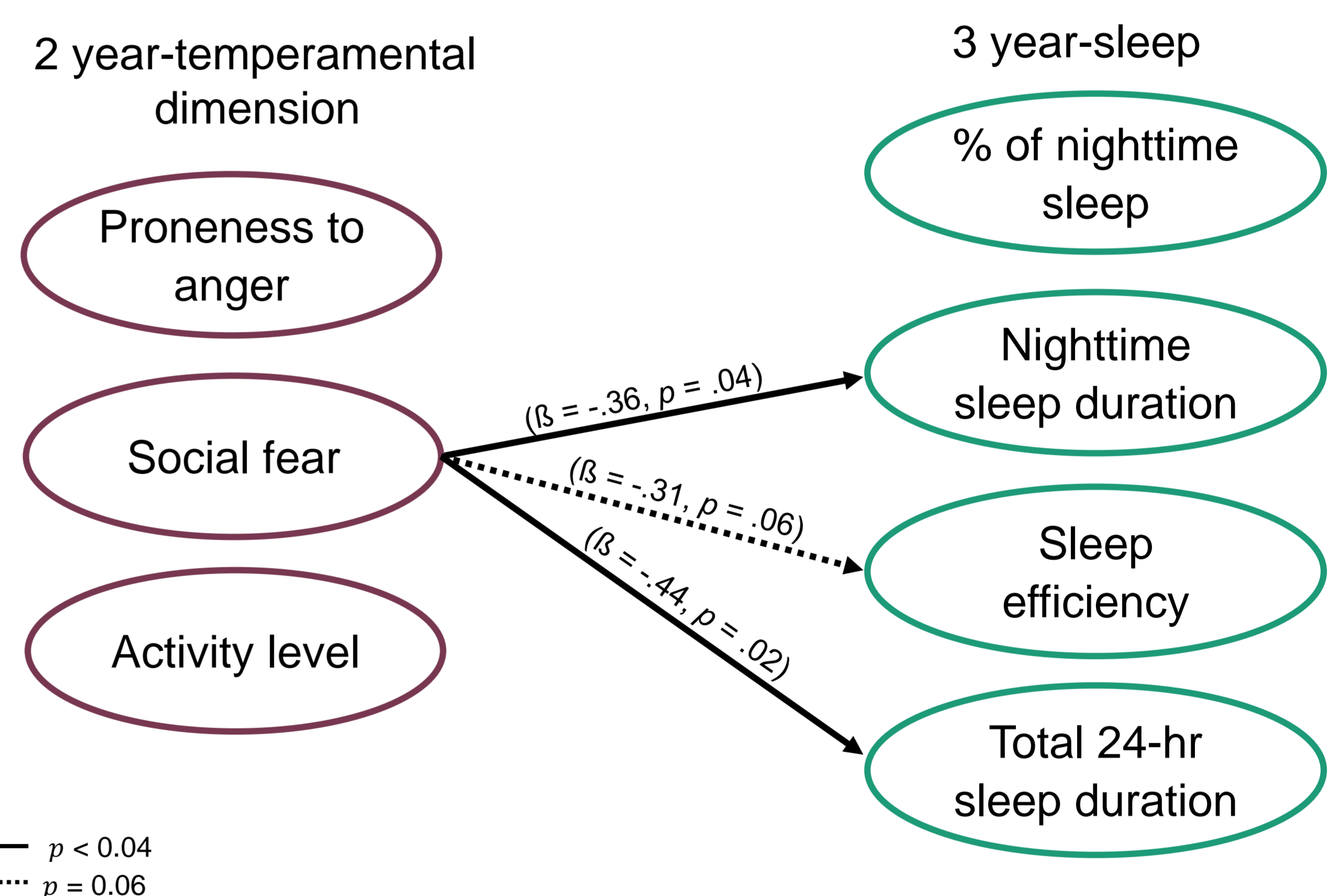
Toddler Behavior Assessment Questionnaire

Proneness to anger
Social fear
Activity level

Actigraphy

Nighttime sleep duration
Total 24-hr sleep duration
% nighttime sleep
Sleep efficiency

Hierarchical regression analyses predicting 3 year-sleep from 2 year-temperamental social fear



Conclusion

- This cross-lagged study adds significantly to those of previous longitudinal studies that had entailed only one assessment each of sleep and temperament.
- **It is the first study, to our knowledge, to suggest that the direction of the association between young children's sleep and temperament may vary according to which dimension of temperament is considered.**
- This is broadly consistent with the consensus that temperament is multidimensional (Goldsmith & Campos, 1990; Rothbart & Derryberry, 1981) and that different dimensions have distinct implications for child functioning (Rettew, Copeland, Stanger, & Hudziak, 2004).
- Future studies should investigate whether directionality varies also by developmental period.

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