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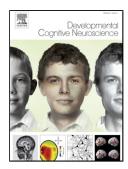
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ACCEPTED MANUSCRIPT

Social Network Size Relates to Developmental Neural Sensitivity to Biological Motion

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Research Highlights

- Social network size is related to neural sensitivity to biological motion
- This finding suggests a relation between brain development and real-world social experience
- This relation is only present in the posterior superior temporal sulcus (pSTS)
- No age-related changes in biological motion are found in middle childhood
- Our findings have implications for disorders of atypical social experience

Abstract

The ability to perceive others' actions and goals from human motion (i.e., biological motion perception) is a critical component of social perception and may be linked to the development of real-world social relationships. Adult research demonstrates two key nodes of the brain's biological motion perception system—amygdala and posterior superior temporal sulcus (pSTS)—are linked to variability in social network properties. The relation between social perception and social network properties, however, has not yet been investigated in middle childhood—a time when individual differences in social experiences and social perception are growing. The aims of this study were to (1) replicate past work showing amygdala and pSTS sensitivity to biological motion in

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