

Developmental Differences in Social Motivation and Neural Correlates of Reward Processing

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Background

- An implicit desire to connect with others, often termed social motivation, pushes people to seek social relationships (Chevallier et al., 2012).
- Social motivation appears to vary across development and may be particularly important to understand during adolescence when changes in social and reward brain networks occur (Altikulaç et al., 2019).
- Differences in social motivation can be reflected in social decision-making.

Objective

- Examine developmental differences in 1) social decision-making and 2) brain responses to subsequent social feedback



Methods

Demographics	Youth	Adult
N	39	48
Age M (SD); Range	11.9 (1.3); 10-15	20.2 (3.1); 18-34
Sex	F: 17, M: 21, SD:1	F: 31, M: 15, SD:1
Race	Asian: 5%, Black: 31%, White: 54%, Multi-: 10%	Asian: 10%, Black: 17%, White: 65%, Multi-: 6%
Latino/a/x or Hispanic	Yes: 3%, No: 69%	Yes: 13%, No: 63%

Frontal Alpha Asymmetry

- Left-Right
- 8-10 Hz
- Approach/Avoid



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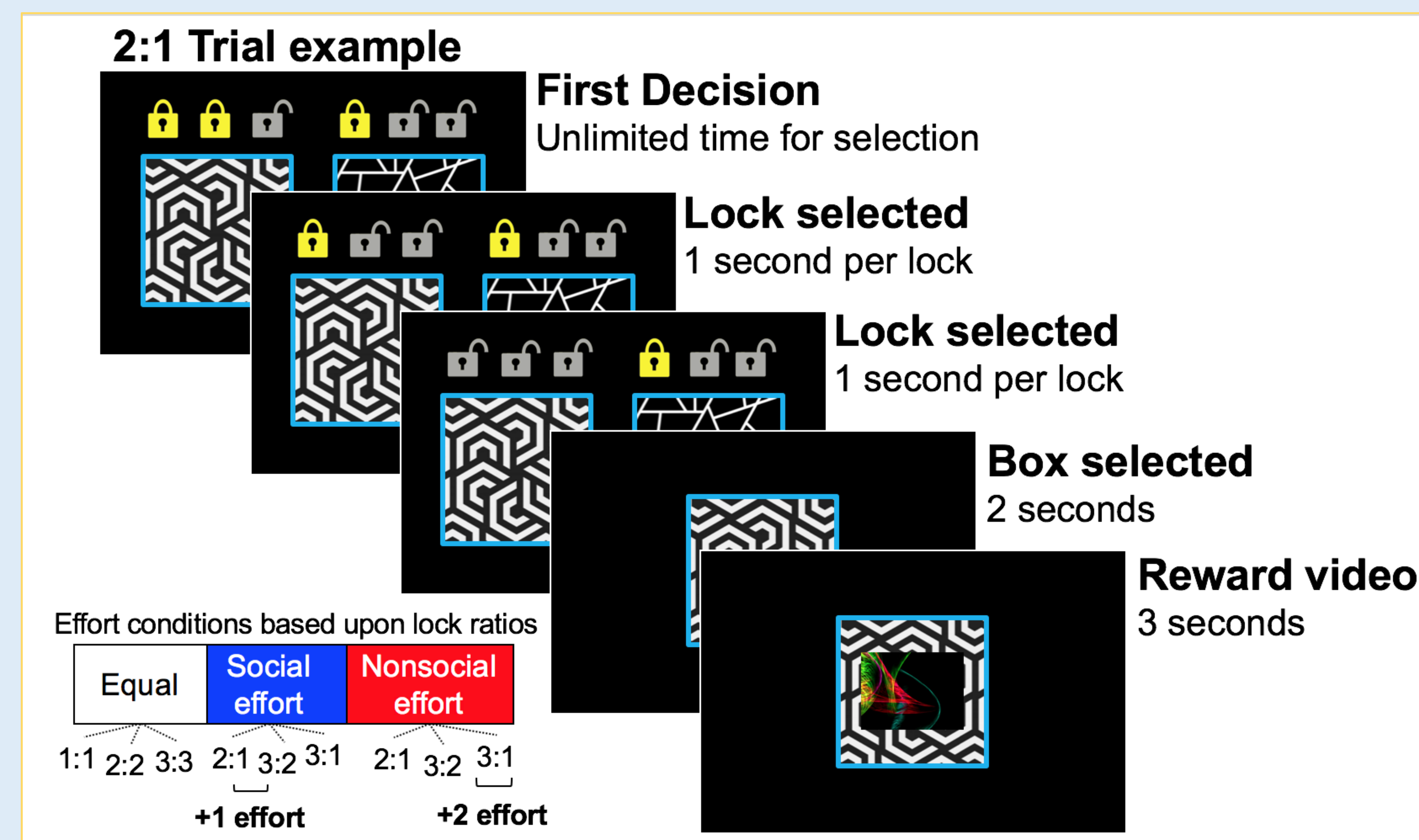
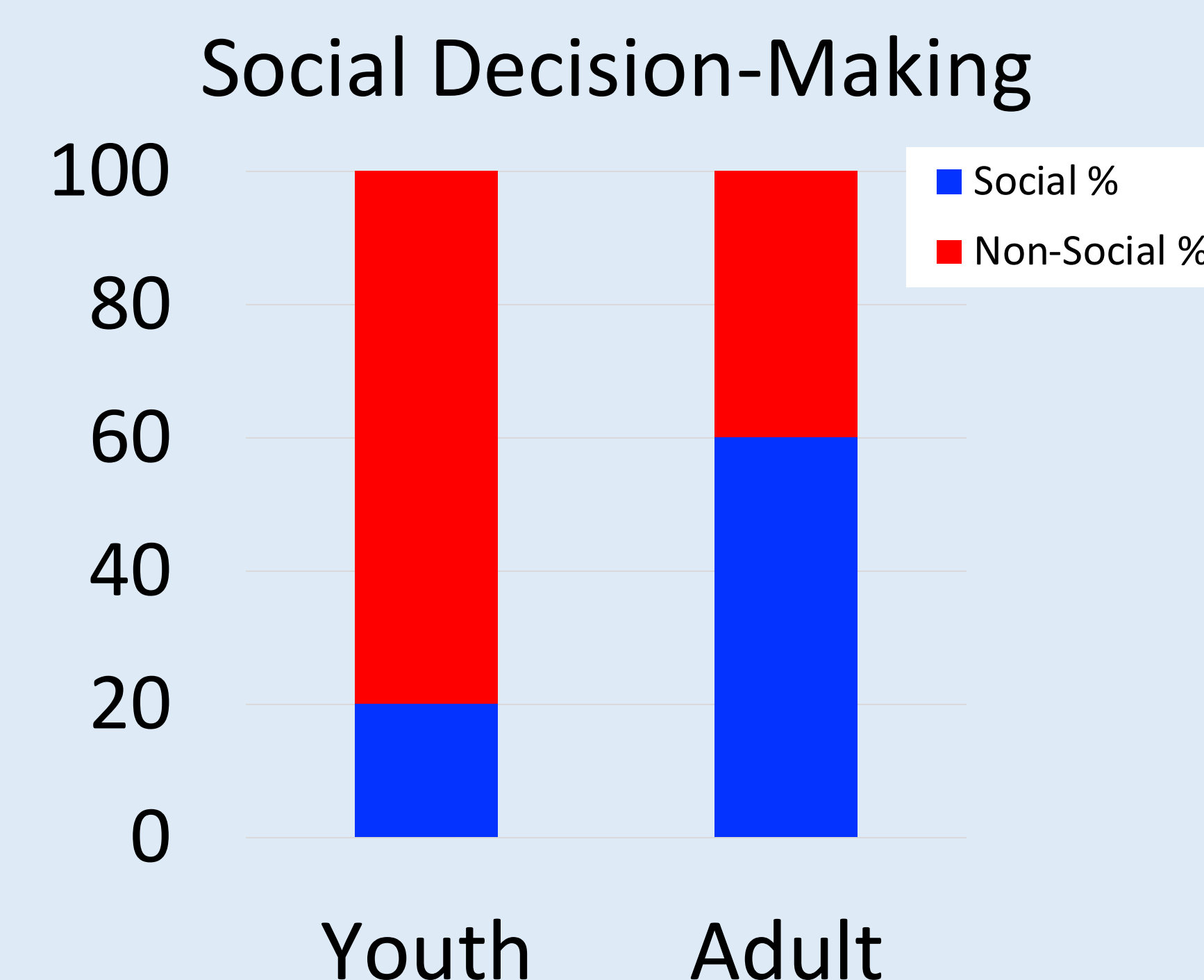
Brain Research Across Development Laboratory

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On a social decision-making task, young adolescents' brain responses (alpha asymmetry) to social feedback remained consistent over time while their brain responses to nonsocial feedback lessened.

Choose-A-Movie Task (Dubey et al., 2015)



Comparison of youth and adult alpha asymmetry in response to social & nonsocial feedback across task

