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Socio-Demographic Risks Affect Executive Functioning

By: Brittny Rodgers, Nicole Shelley, & Hannah B. White Ph.D

Introduction

- The first study wanted to find a relationship between socio-demographic risks and attentional control in infants.
- The second study wanted to find a relationship between attentional control and academic performance in order to study how infant attentional deficits can shift into adulthood.
- To measure attentional control this study used average fixation durations (the longer the average fixation duration the worse attentional control)
- Self-regulatory and protective practices of attentional control are associated with positive life outcomes from toddlerhood to adulthood, including those implicated in the academic, social, and interpersonal realms (Mischel & Ayduk, 2010).

Method

Participants

Study 1: N = 102 3.5-month-olds

Study 2: N = 67 undergraduates

Materials

Study 1:

- Eye Tracking Stimuli
 - Human bodies, faces, and objects
- Socio-demographic Risk Score
 - Gave one point for each risk factor (minority, low maternal education, low income). The higher the score the higher the risk

Study 2:

- Self report GPA
- Eye tracking Stimuli

Procedure

- In Study 1 eye tracking and socio-demographic risk scores were used together to measure how risk and average fixation durations relate across levels of risk
- In study 2 undergraduates were asked to report GPA and complete the same eye-tracking procedure

Results

Study 1

- As socio-demographic risk scores increased so did average fixation durations
- It was suggested that lower maternal education ($p < .05$) and family income ($p < 0.001$) were significant risk factors associated with longer fixation durations

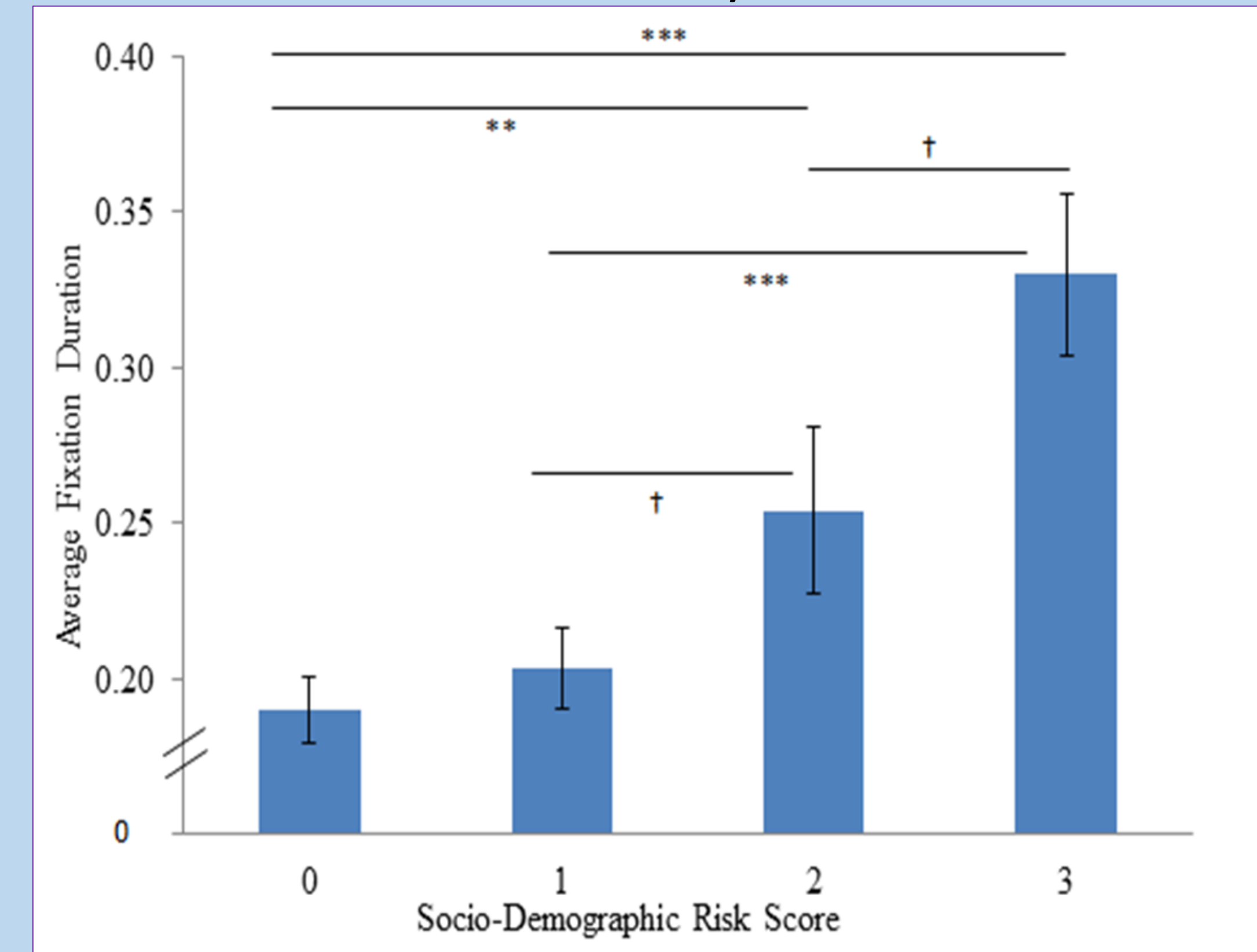
Study 2

- Average GPA decreased when average fixation durations increased

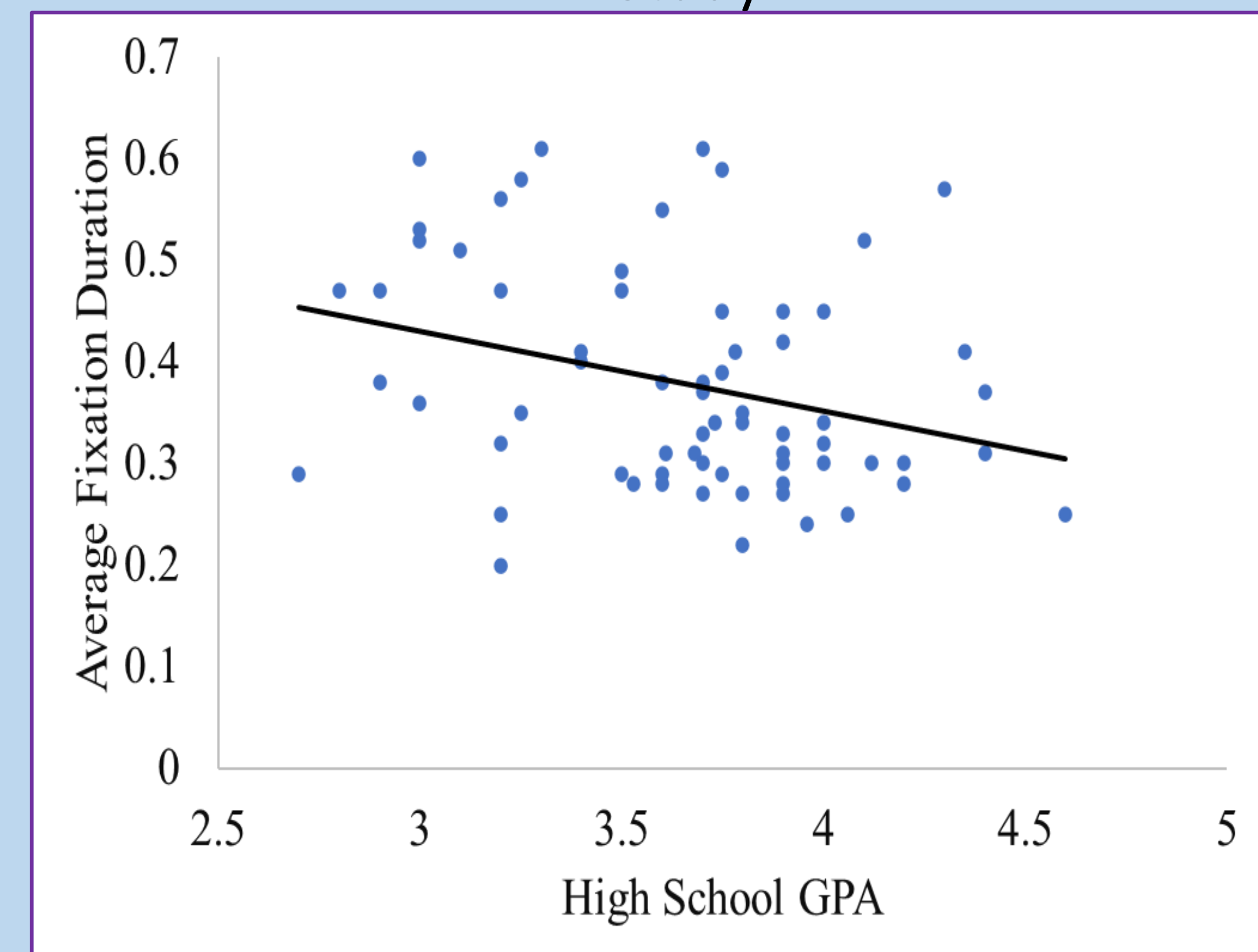
Conclusions

- Coming from high-risk sociodemographic backgrounds can have detrimental affects on an infant's ability to control its attention.
- Executive control issues start early in life
- Shows possibility of attentional control issues being linked with academic performance.
- Interventions could be created to target adolescence and adults that come from high-risk sociodemographic backgrounds and suffer with multiple deficits in executive functioning.

Study 1



Study 2



References

Mischel W. & Ayduk O. (2010) willpower in a cognitive affective processing system: the dynamics of delay of gratification. In: *Handbook of Self-Regulation: Research, Theory and Applications* (eds K.D. Vohs & E. F. Baumeister), 2nd edn, pp. 83-105. Guilford Press, New York, NY

