

Adolescence and Psychology:

Genes, the Environment &
Self-Esteem

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Genetics and Self-Esteem Outline

- Background
- Hypotheses
- Results
 - H1, H2, H3
- Conclusions

The image features a dark blue background with numerous glowing, stylized chromosomes and DNA strands scattered across the frame. The chromosomes are depicted as thick, segmented, X-shaped structures, while the DNA strands are thinner and more irregular. The overall aesthetic is scientific and futuristic. Centered in the image is the text "Self-Esteem?" in a white, serif font. The text is arranged in three lines: "Self-" on the top line, "Esteem" on the middle line, and a question mark "?" on the bottom line.

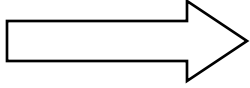
Self-
Esteem
?

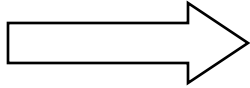
Intersection between genes and environment?

NO studies out there!



Testing 3 Hypotheses:

H1) 5HTTLPR  **Self-Esteem**

H2) Bad Environment  **Low Self-Esteem**

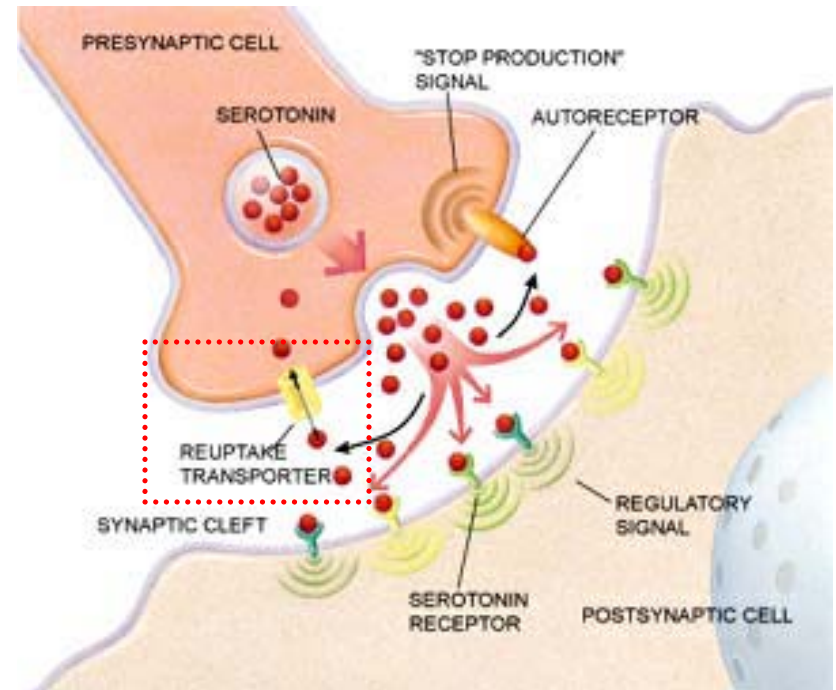
H3) Gene X Environment  **Self-Esteem**

The People

- 1199 adolescents
 - white 60%, black 17%, Lat/Hispanic 16%, Asian 7%
- Avg age
 - Wave I : **14.9** (SD = 1.6)
 - Wave II : **16.5** (SD = 1.7)
 - Wave III : **21.8** (SD = 1.7)

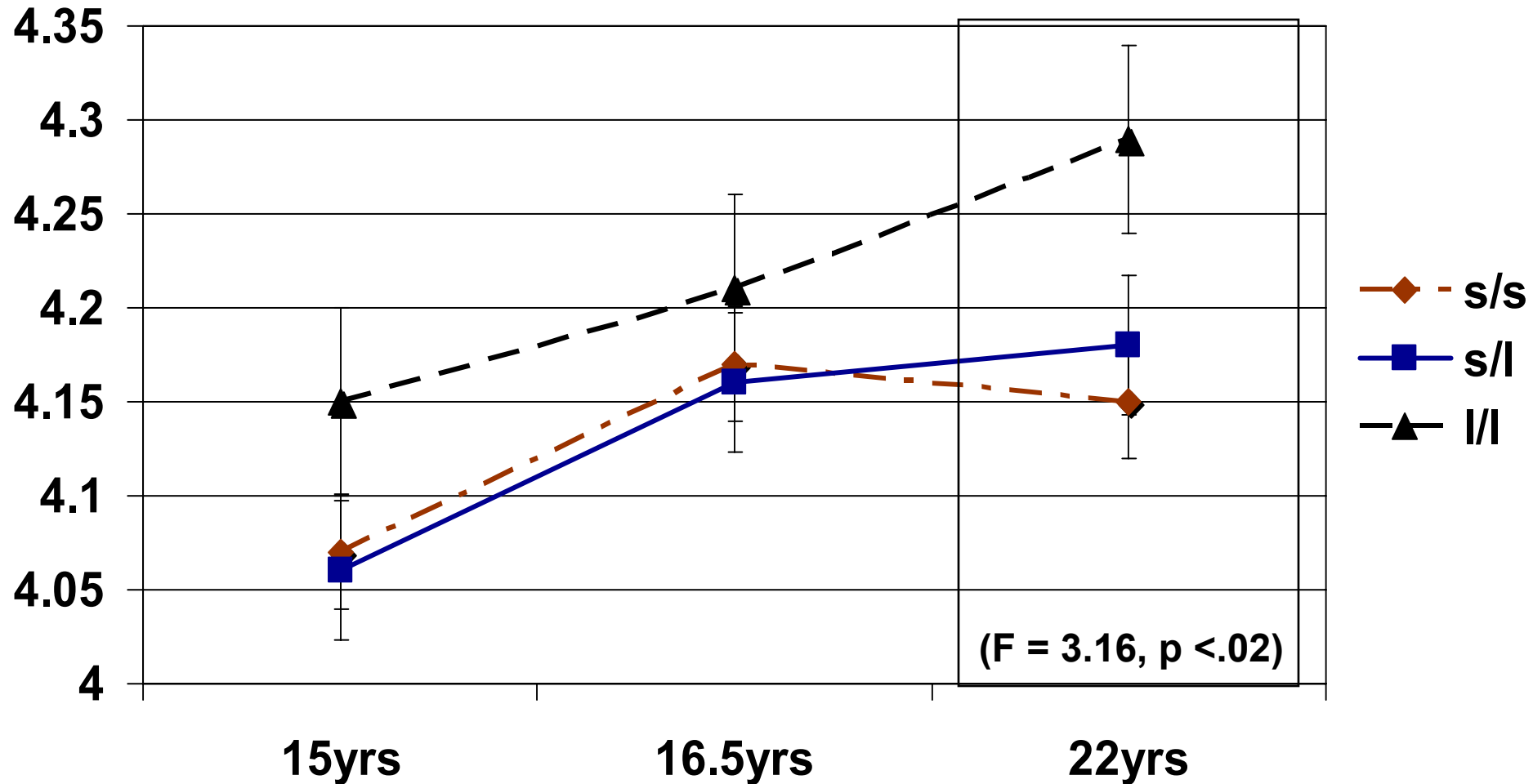
Hypothesis 1

- Does the Serotonin transporter gene (5HTTLPR) influence self-esteem?

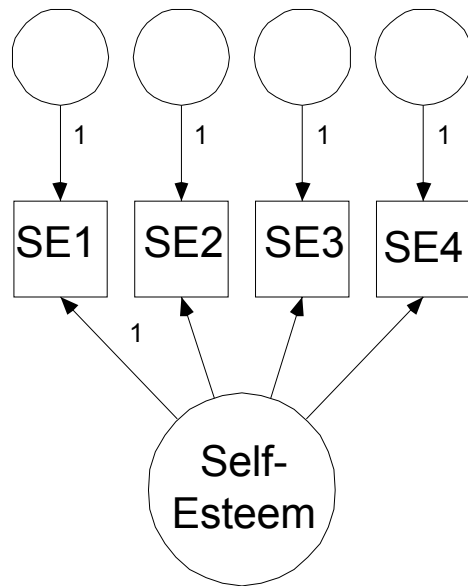


Effect of 5HTT on self-esteem across 3 waves

Between subjects effect (mean SE) $p < .01$



Self-Esteem Variable



5-point scale extent individuals agree or disagree with the following statements

- You have a lot of good qualities
- You have a lot to be proud of
- You like yourself just the way you are
- You feel like you are doing everything just about right

A large crowd of people, many holding sticks, gathered on a street with a checkered floor. The scene is vibrant and appears to be a community event or festival. The text 'Social Environment' is overlaid in white with a black outline, and a large blue arrow points downwards from it towards the text 'Self-Esteem', which is also in white with a black outline.

Social Environment

Self-Esteem



Parenting?

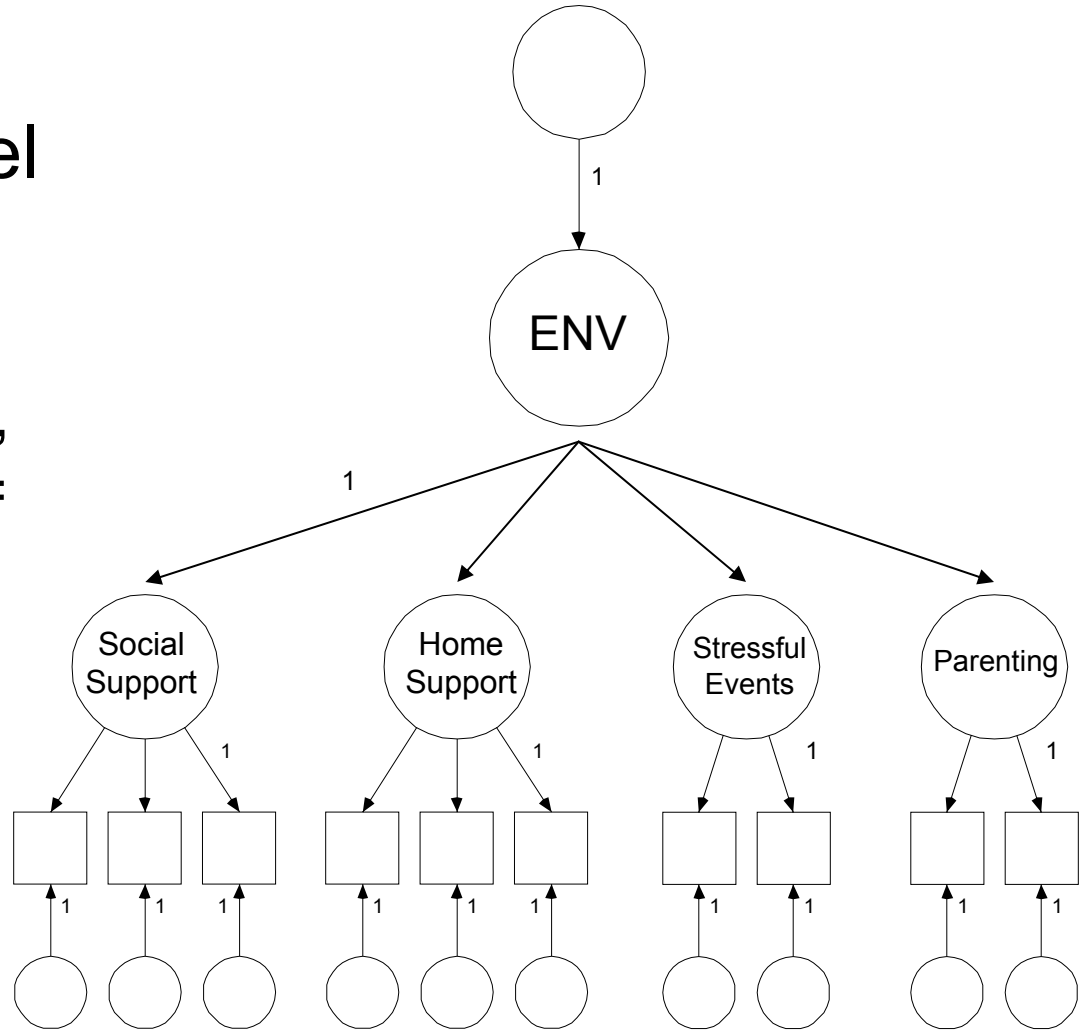
Maltreatment or Neglect?



Environmental Risk

Environment
measurement model
Wave I and II

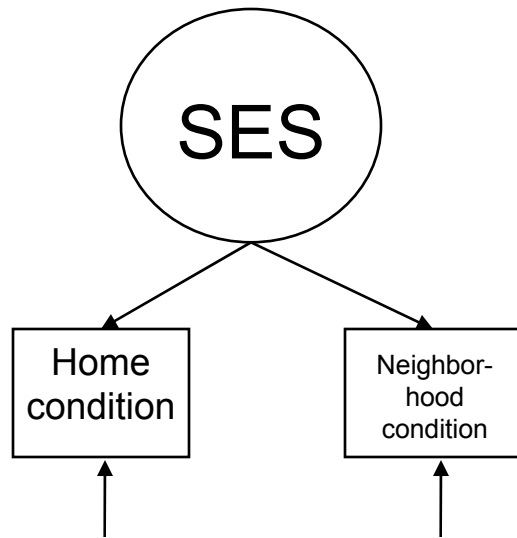
$\chi^2 = 906.29$, $df = 517$,
 $CFI = .945$, $RMSEA =$
.044 (.039-.048)



Housing & Neighborhood Conditions



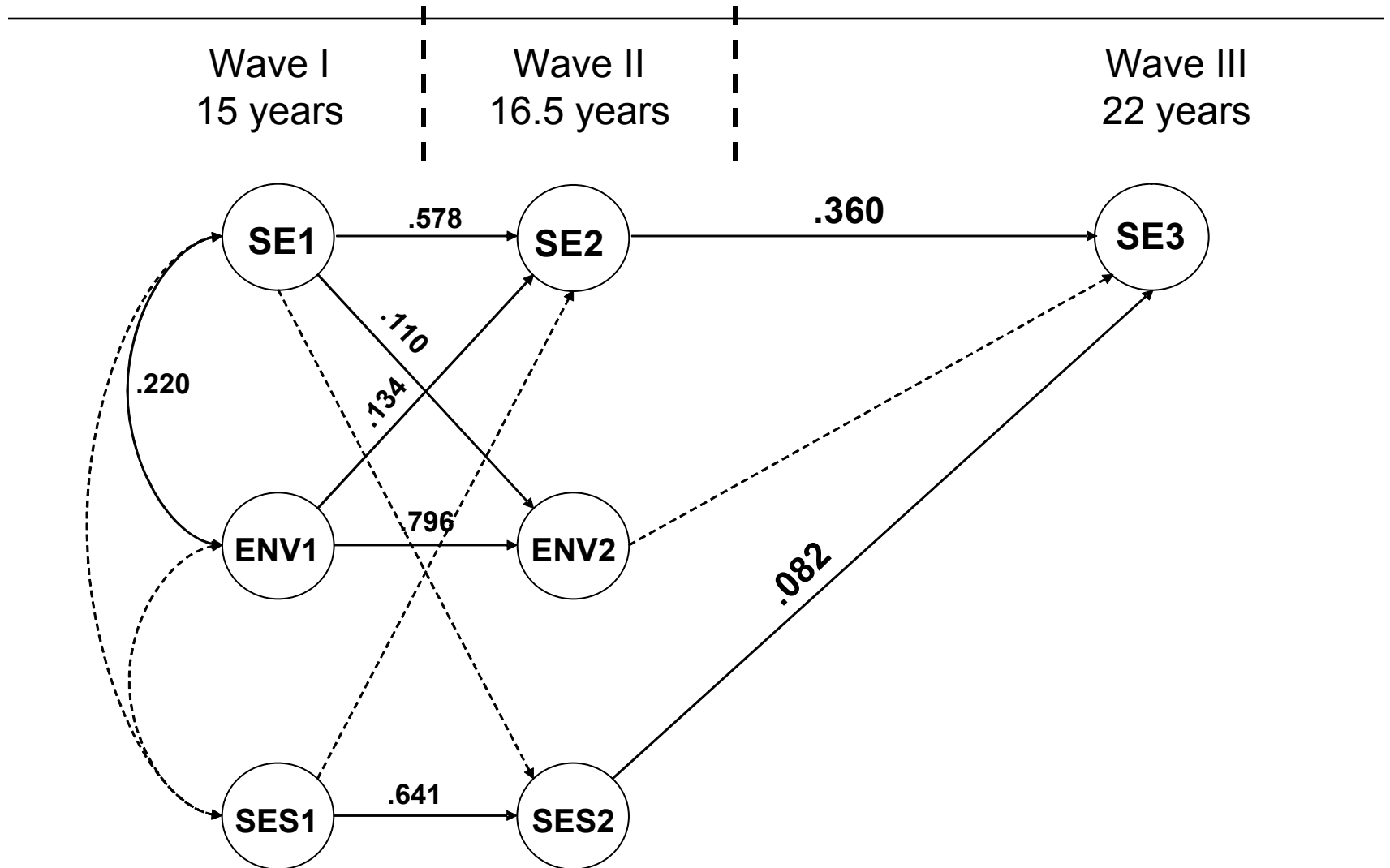
Socioeconomic Status (SES) Measure



Interviewer Ratings (score 1-4):

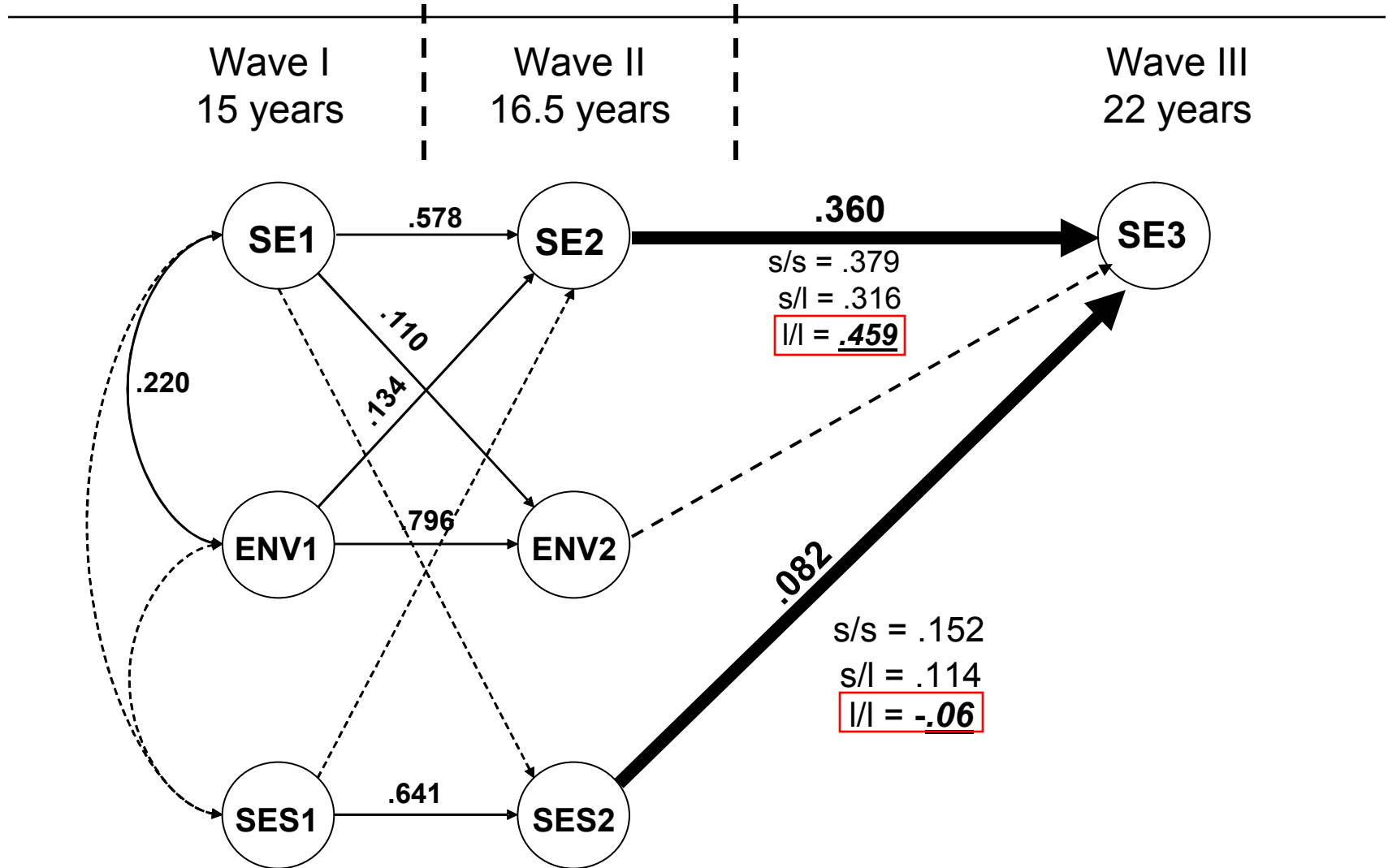
- 1. How well kept is the building in which the respondent lives?**
- 2. How well kept are most of the buildings on the street?**

Self-Esteem from Adolescence to Early Adulthood



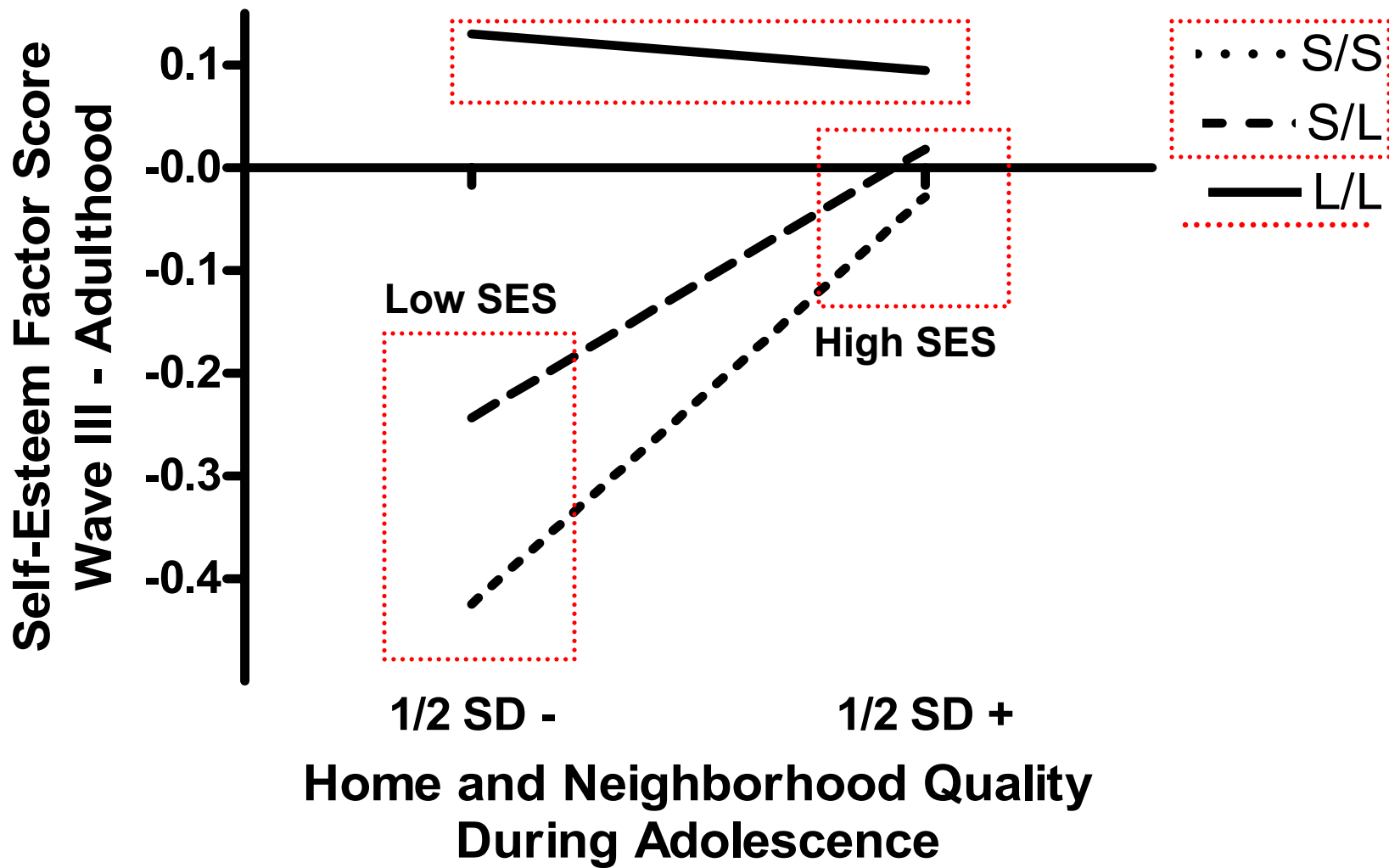
Self-Esteem from Adolescence to Early Adulthood

Do Environmental effects differ by 5HTT genotype?



$\chi^2 = 6505.28$, CFI = .85, RMSEA = .046 (.044 -.048)

SES latent variable x 5HTTLPR Wave III Self-Esteem



Self-report is less effective

32. To help avoid skidding on slippery surfaces you should:

- Shift to a lower gear after starting down a steep hill
- Speed up to enter curves and slow down to exit them
- Slow down before entering curves and intersections

33. Drivers of large trucks often travel with a lot of space in front of their vehicle. This extra space is needed for:

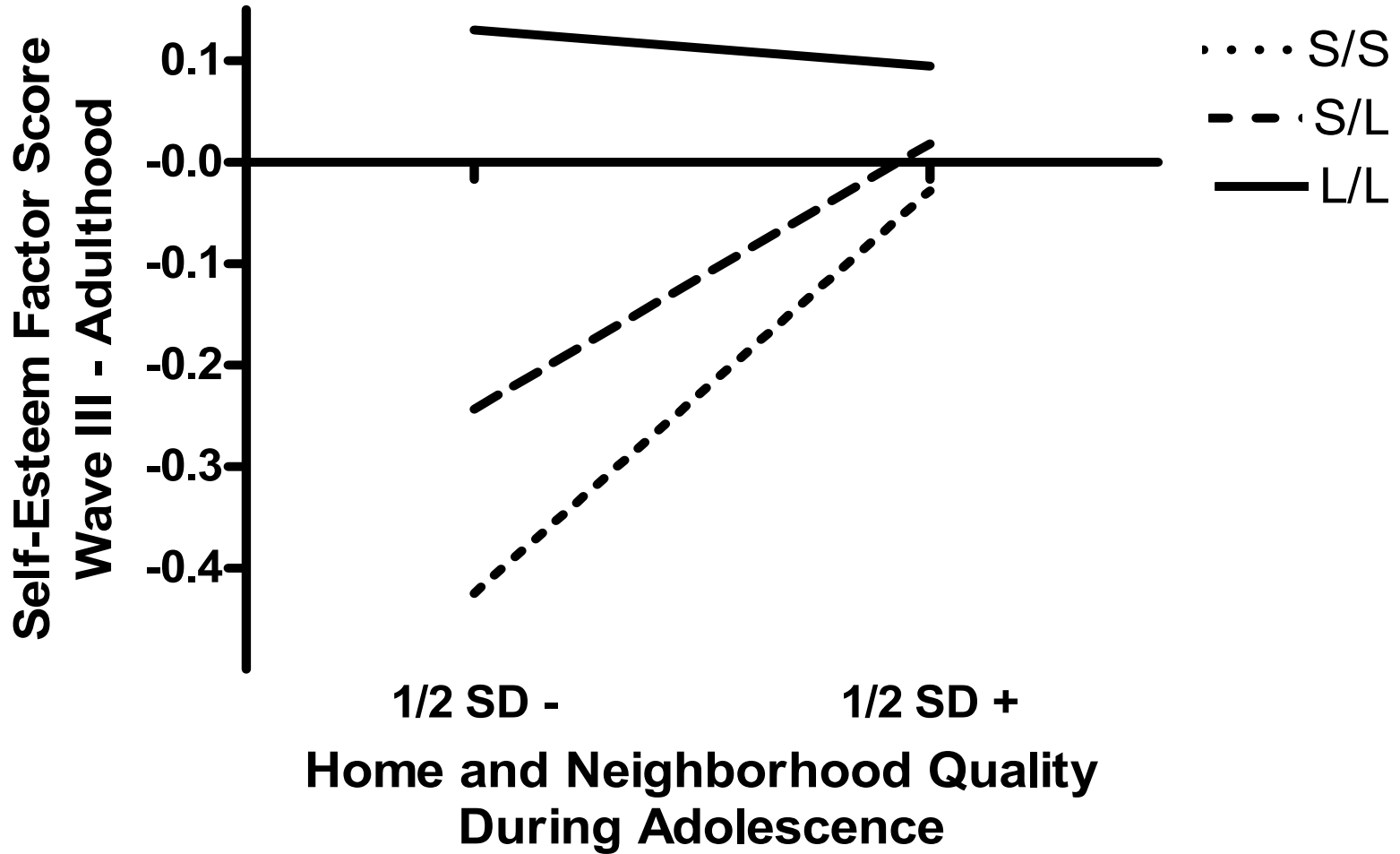
- Other drivers to use when merging onto an offramp
- The truck driver to use for stopping the vehicle
- Other drivers to use when they want to slow down

34. You are driving on a freeway posted for 65 mph. Traffic is heavy and moving at 35 mph. The best speed for your vehicle is most likely:

- 25 mph
- 35 mph
- 30 mph

Look Familiar??

Caspi et al. 2003



A close-up, high-angle shot of a US dollar bill. The focus is on the intricate patterns and textures of the paper. A vibrant rainbow streak, composed of red, orange, yellow, green, cyan, and magenta bands, runs diagonally across the right side of the frame. In the center, a white rounded rectangular box contains bold black text. The background shows the eye of the person on the bill, the word 'FEDERAL RESERVE NOTE', and the word 'DOLLAR'.

MONEY!!

**Will be your greatest
contribution!!**