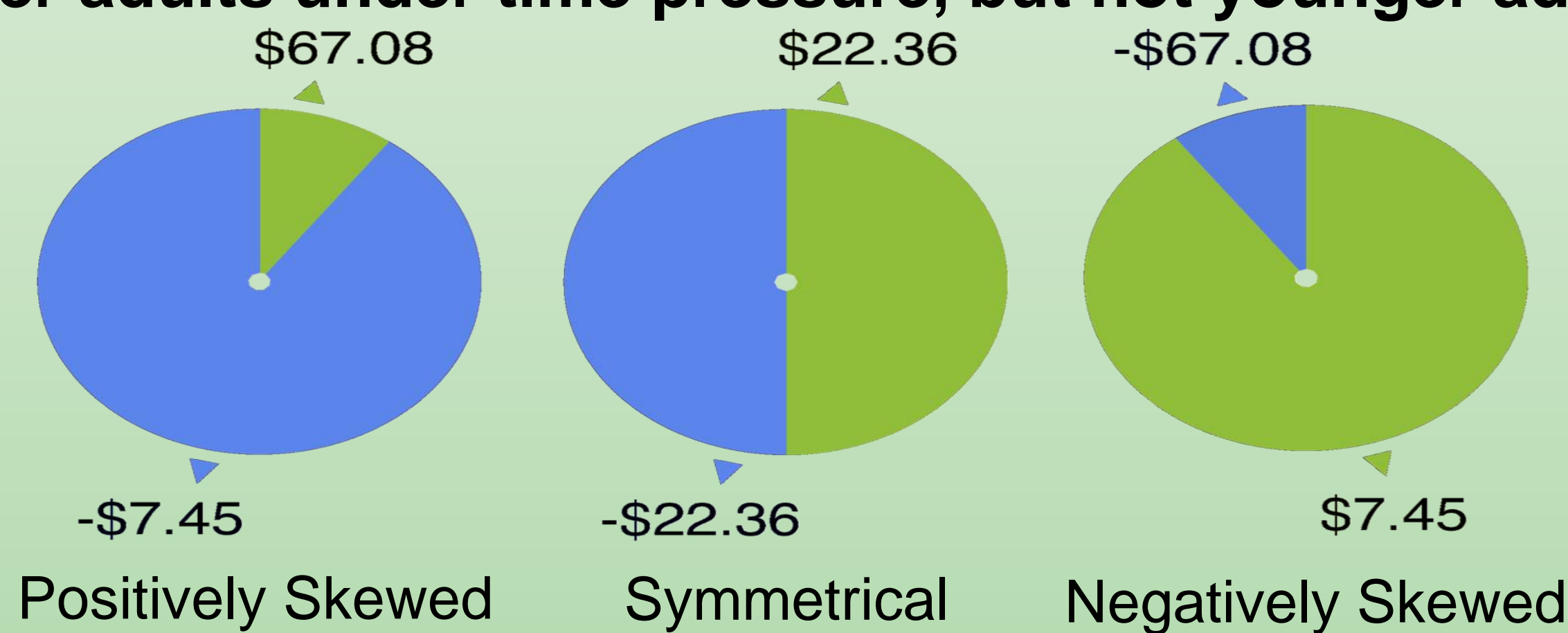


## Introduction

- Positive-skew bias:** people tend to prefer positively-skewed gambles.
- Older adults tend to have a stronger positive-skew bias.
- This could be because of *selective loss avoidance*.
- Under time pressure, individuals have less time to engage cognitive resources, potentially reducing this positive-skew bias.
- Time pressure effects are stronger for older adults than for younger adults.
- We hypothesize that positive-skew bias will decrease for older adults under time pressure, but not younger adults.**



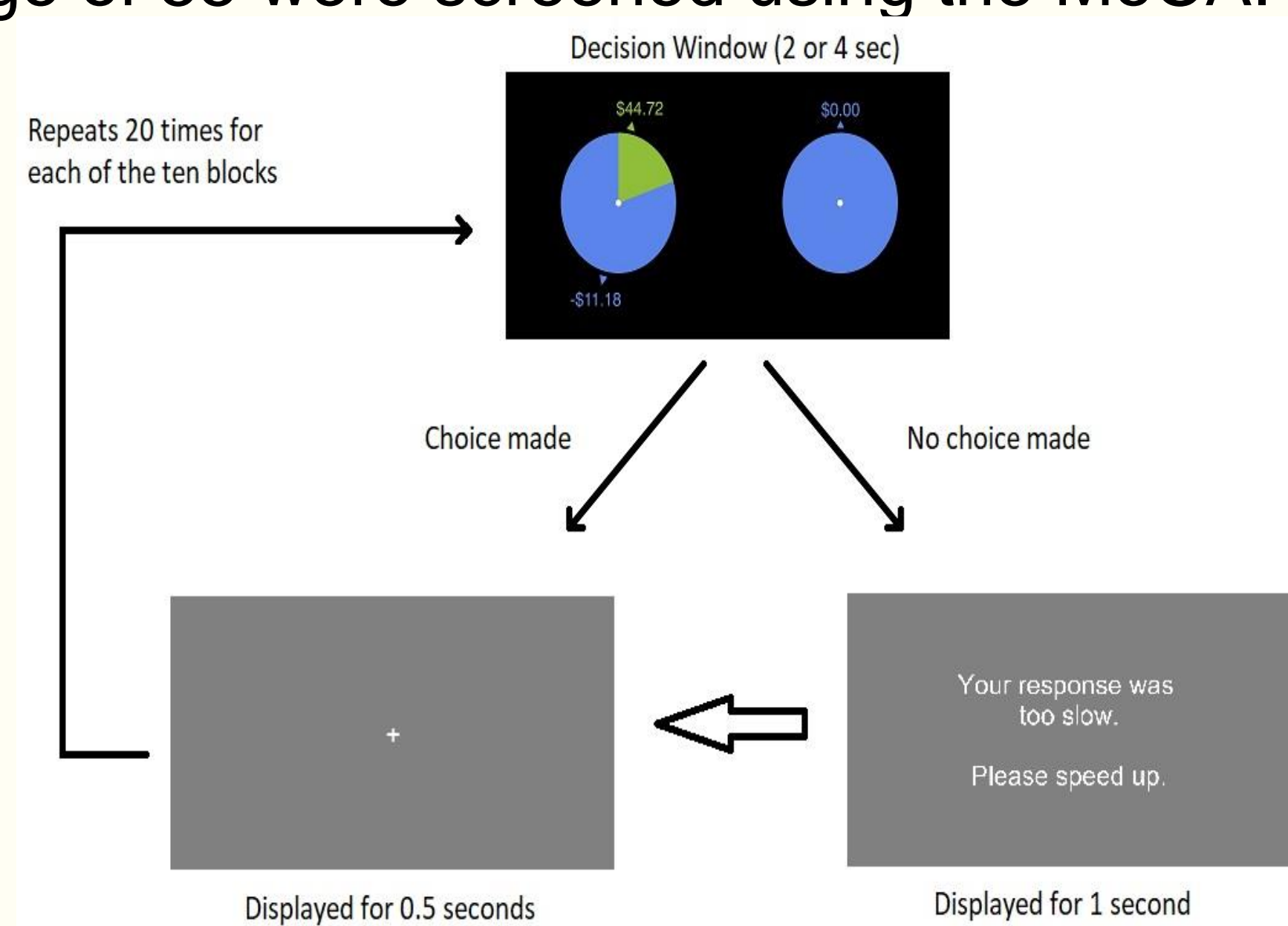
## Methods

### Participants:

37 participants (25-85 years old) out of 78 have been recruited from the Dallas Metro area. Participants over the age of 55 were screened using the MoCA.

### Task:

- Conditions:
- Time Pressure: 2 seconds
- No Time Pressure: 4 seconds
- 10 blocks, each with:
- 9 positively-skewed
- 9 negatively-skewed
- 2 symmetric



### Analysis:

Skew Bias Score = Positive Skew Acceptance Rate – Negative Skew Acceptance

Baseline model

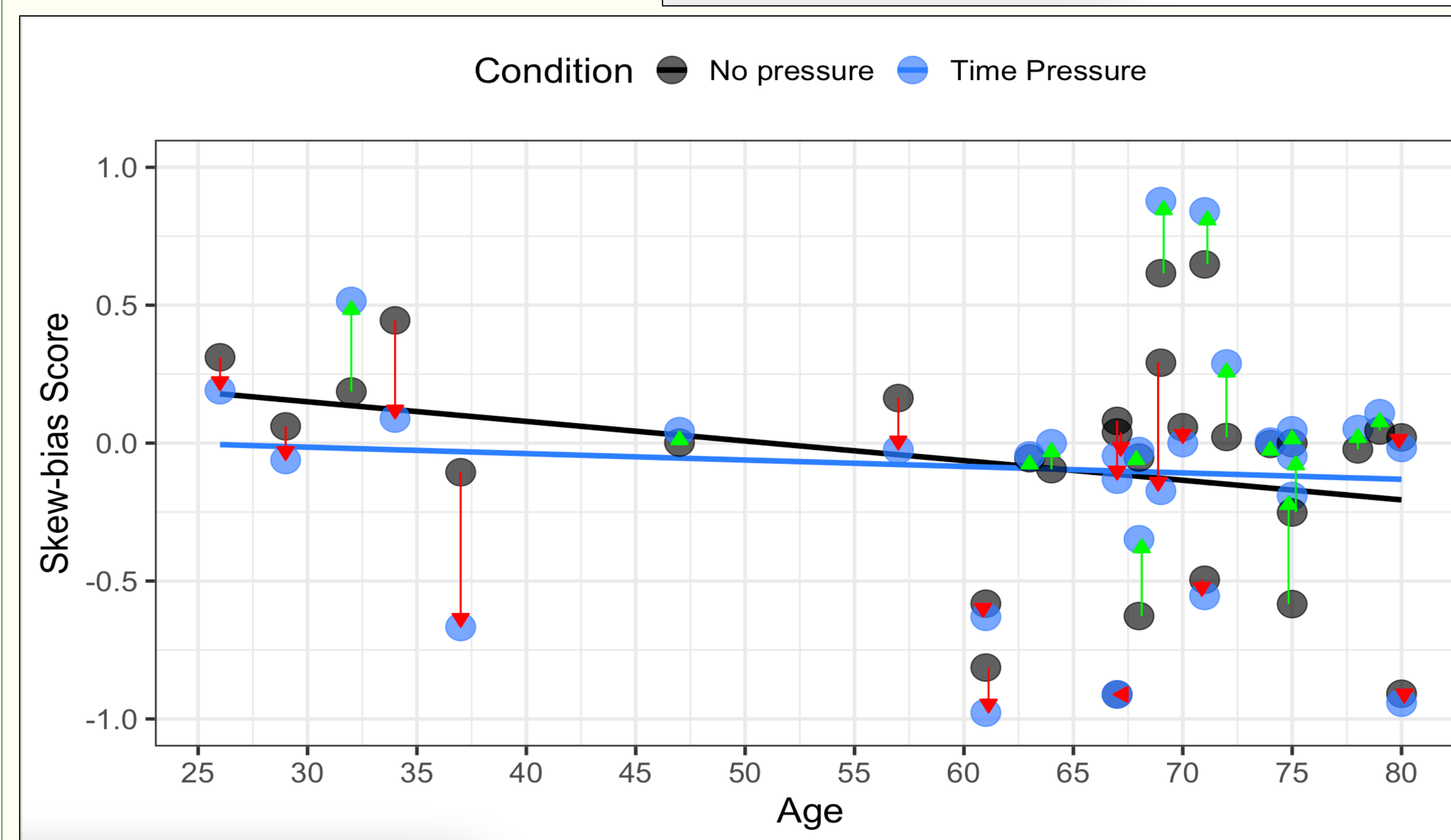
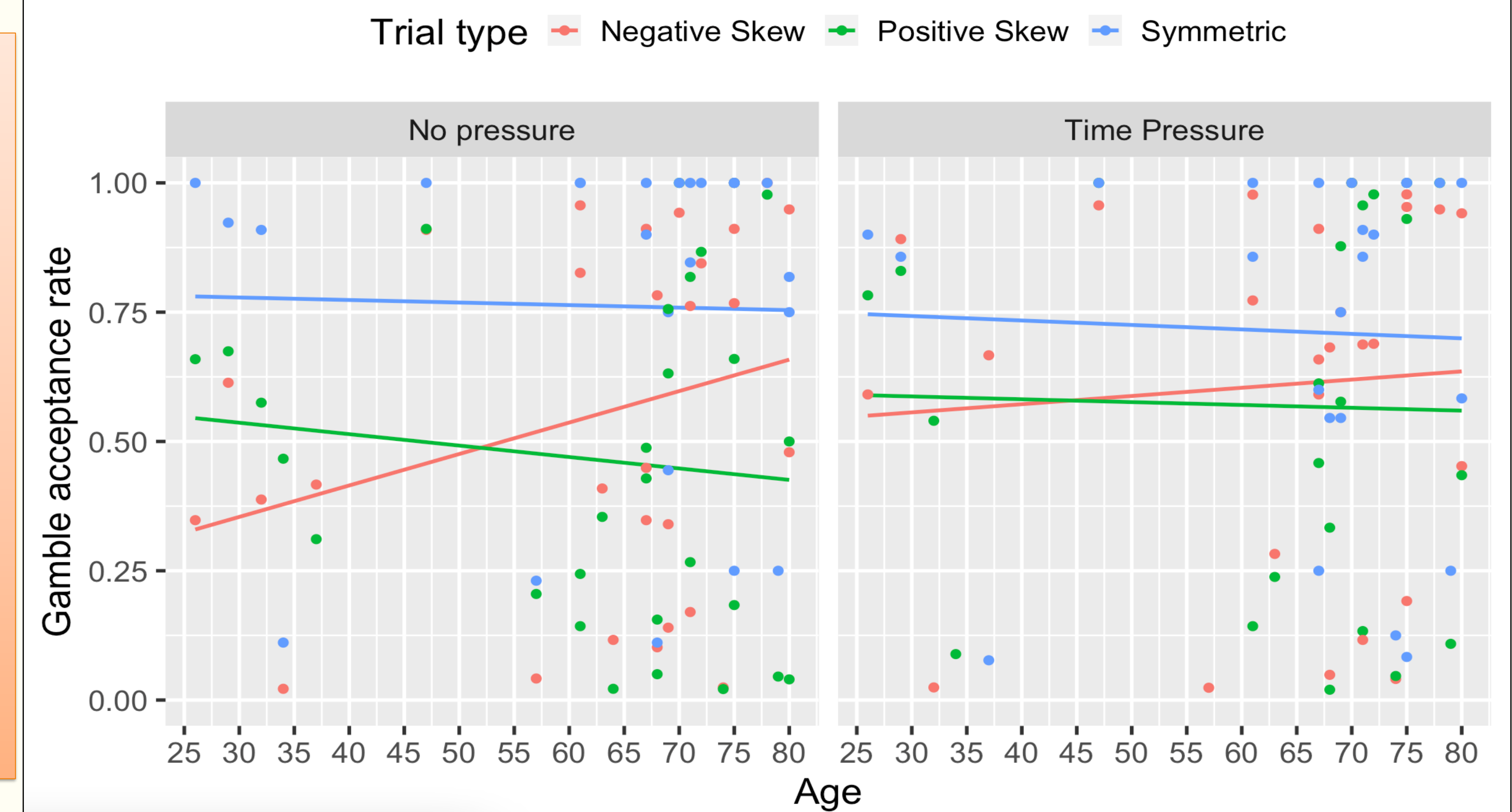
$$\text{Skew bias score} = b_{0j} + b_{1j}(\text{condition}) + e_{ij}$$

Age model

$$\text{Skew bias score} = b_{0j} + b_{1j}(\text{age}) + b_{2j}(\text{condition}) + b_{3j}(\text{age} \times \text{condition}) + e_{ij}$$

## Preliminary Results

- No pressure condition:
  - Younger adults display a positive skew bias, but older adults display a negative skew bias
  - Our sample displays a *negative-skew bias*
  - This preference increases with age.
- Under time pressure,
  - All bias disappears.
  - Older and younger adults have similar preferences.



- Our current sample is majority 'older' adults.
- Our "Age" model provides a better fit for the data.
  - Age ( $b = -.11$ ) and age x condition ( $b = .07$ ) are statistically significant ( $p < .001$ ).
- Condition was not significant on its own ( $p = 0.432$ ).
- Current analysis is underpowered.

## Conclusion

- Our sample does not seem to prefer positively skewed gambles the way that previous literature suggests.
  - This may be due to environmental factors such as COVID-19, but it may also be due to differences in task design.
- Prior studies used round dollar amounts (e.g. \$1.25) and common odds (e.g. 75%/25%)
  - We used more precise dollar amounts and odds
  - Possible fluency effects

## Contact Us



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