

Manybabies1 Test-Retest Supplementary Information

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Relationship between the number of trials infants contribute in each session

Are there stable individual differences in how likely an infant is to contribute a high number of trials? To answer this question, we conducted an exploratory analysis investigating whether there is a relationship between the number of trials an infant contributed in session 1 and session 2. Do infants who contribute a higher number of trials during their first testing session also tend to contribute more trials during their second testing session? A positive correlation between trial numbers during the first and second session would indicate that there is some stability in a given infants' likelihood of remaining attentive throughout the experiment. On the other hand, the absence of a correlation would indicate that the number of trials a given infant contributes is not predictive of how many trials they might contribute during their next session.

We found a strong positive correlation between number of trials contributed during the first and the second session $r = .58$, 95% CI [.47, .68], $t(159) = 9.05$, $p < .001$ (see Figure 1). This result suggests that if infants contribute a higher number of trials in one session, compared to other infants, they are likely to contribute a higher number of trials in their next session. This finding is consistent with the hypothesis that how attentive infants are throughout an experiment (and hence how many trials they contribute) is a stable individual difference, at least for some infant looking time tasks. Researchers should therefore be mindful of the fact that decisions about including or excluding infants based on trials contributed may selectively sample a specific sub-set of the infant population they are studying (Byers-Heinlein, Bergmann, & Savalei, 2021; DeBolt, Rhemtulla, & Oakes, 2020).

Preference reversal

48.48 percent of the infants had a preference reversal from test to retest session.

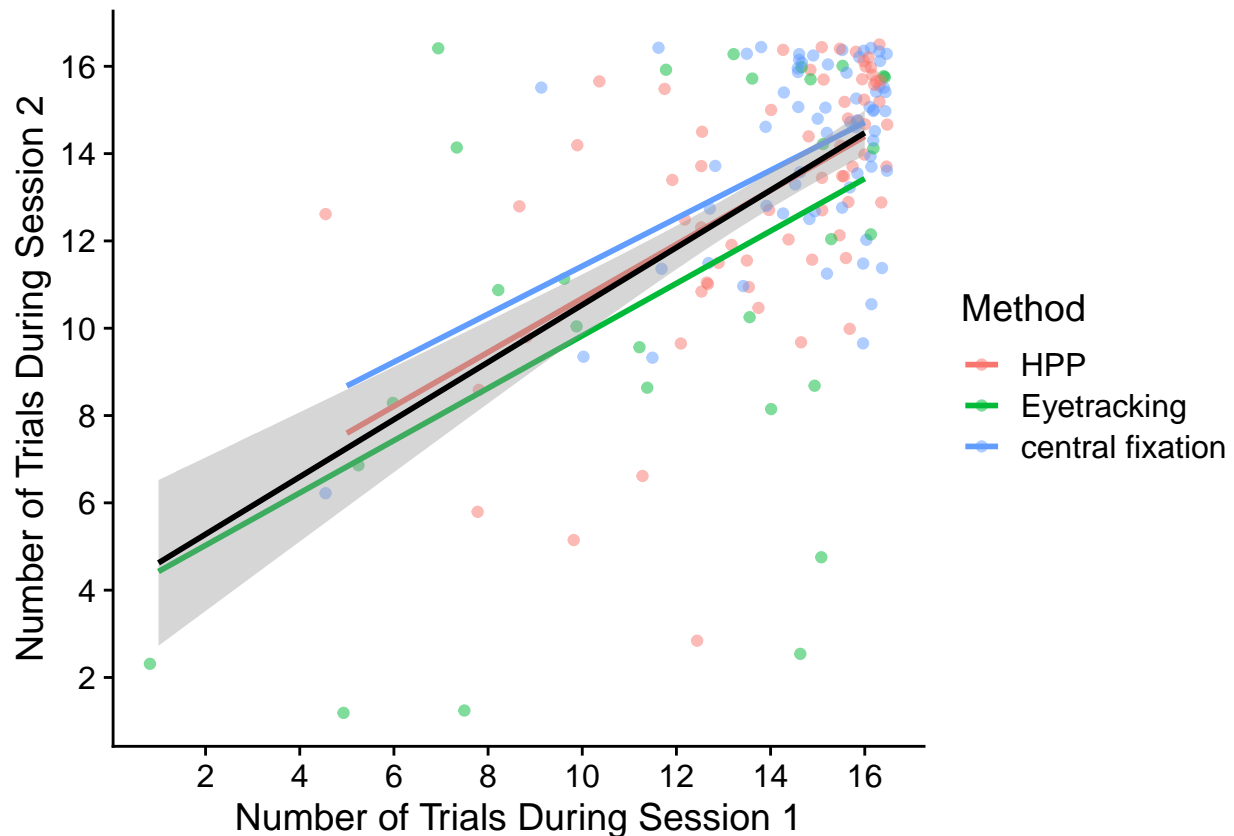


Figure 1. Correlation between the number of trials contributed in session 1 and session 2. Each data point represents one infant. Colored lines represent linear fits for each method.

References

- Byers-Heinlein, K., Bergmann, C., & Savalei, V. (2021). Six solutions for more reliable infant research. *Infant and Child Development*, e2296.
- DeBolt, M. C., Rhemtulla, M., & Oakes, L. M. (2020). Robust data and power in infant research: A case study of the effect of number of infants and number of trials in visual preference procedures. *Infancy*, 25(4), 393–419.