INTRODUCTION

- What is the relation between language and thought? Are they two completely different systems or two sides of the same coin?
- De Villiers (2014) suggests that language might be particularly required for building complex conceptual representations.
- In this study, we examine the building of abstract, three-term transitive events in 12-24-mo-olds and in verbal shadowing adults. Then we compare these to two-term intransitive events, with comparable stimuli.

PARTICIPANTS & PROCEDURE

- Infants: 45 infants, 12-24mo, recruited at UMass Boston Baby Lab
- Adults: 40 adults, undergraduate students recruited at UMass Boston
- We used Tobii TX300 Eye Tracker system to track the gaze of the participants while they watched the animated videos.
- Adults did verbal shadowing throughout the experiment, without stopping more than 2 seconds at any point.

RESULTS

- After data collection, the following treatments were applied to the data:
  - Outlier data points, top and bottom 5 percentiles, were removed.
  - Trials with more than 33% missing data in the first 10 seconds of the trial (until the end of anticipatory period) were excluded.
  - The first 8, i.e. Training Trials, were excluded from the analysis.

CONCLUSIONS

- We suggest that representing three-term transitive events may be at a level of complexity that cannot be accomplished without language.
- Verbal shadowing seems to shut down computing of a three-term transitive event as a class, but not two-term intransitive events.
- For syntactically more complex concepts, we might need to rely on language more than we do for simpler concepts.

SUMMARY

- For transitive events, neither infants nor verbal shadowing adults showed significant target anticipations.
- For intransitive events, we found significant anticipations towards targets versus non-targets in both infants and verbal shadowing adults.
- Successful anticipators showed significantly different looking patterns for Right and Left trials in the anticipatory period, anticipating the upcoming target correctly.

REFERENCES