

## Background & Significance

- Play activities are linked to degrees of cognitive development (Fein & Apfel, 1979), but few studies have examined the times during which children do not engage in activity during a free play session.
- Unfocused play – when a child stops engagement with an object but does not move on to another object.
- Unfocused play may involve the same processes as habituation.
- Habituation occurs after a child has attended to stimuli long enough to learn and remember the features of stimuli, and thus is no longer attracted by the stimuli (Schöner & Thelen, 2006).
- Habituation is linked to the speed of information processing and cognitive development (Cooke, Komorowski, Kaplan, Gavornik, & Bear, 2015).
- Maternal sensitivity promotes exploratory behaviors and complex play behaviors (Belsky, Goode, & Most, 1980).

Goals: 1). To examine the developmental course of unfocused play, and the role of maternal sensitivity plays in the development of unfocused play; 2). To test the bidirectional association between unfocused play and maternal sensitivity.

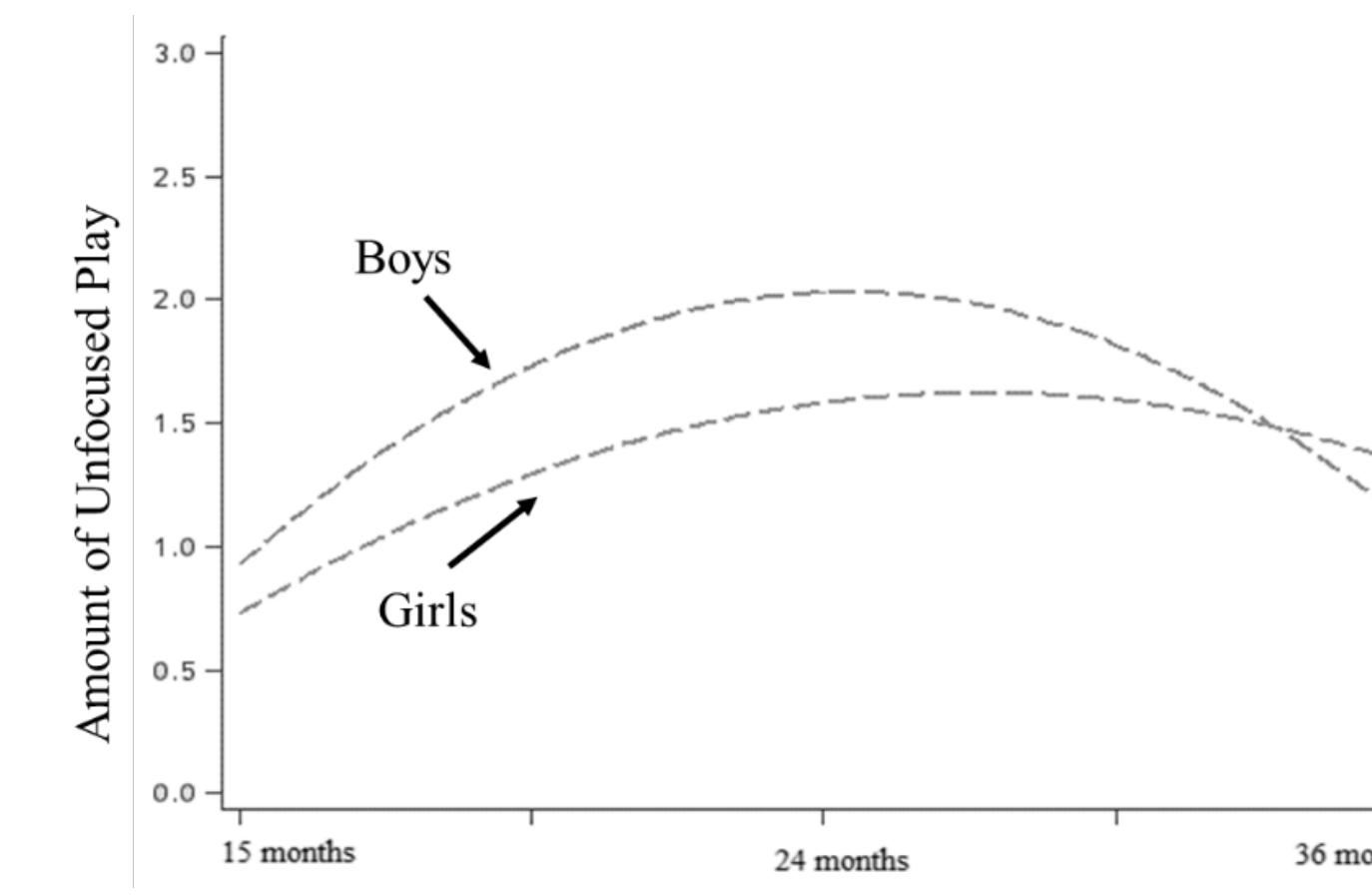
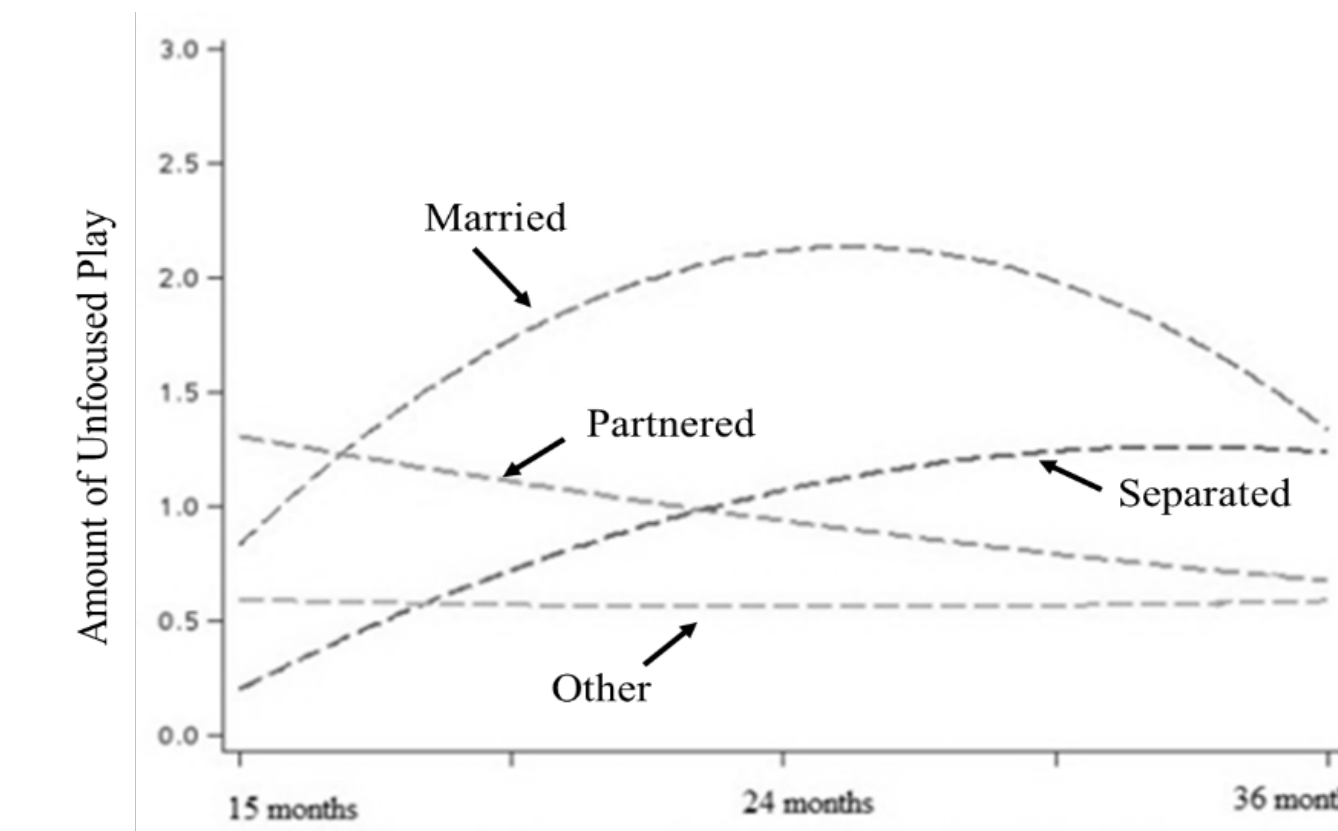
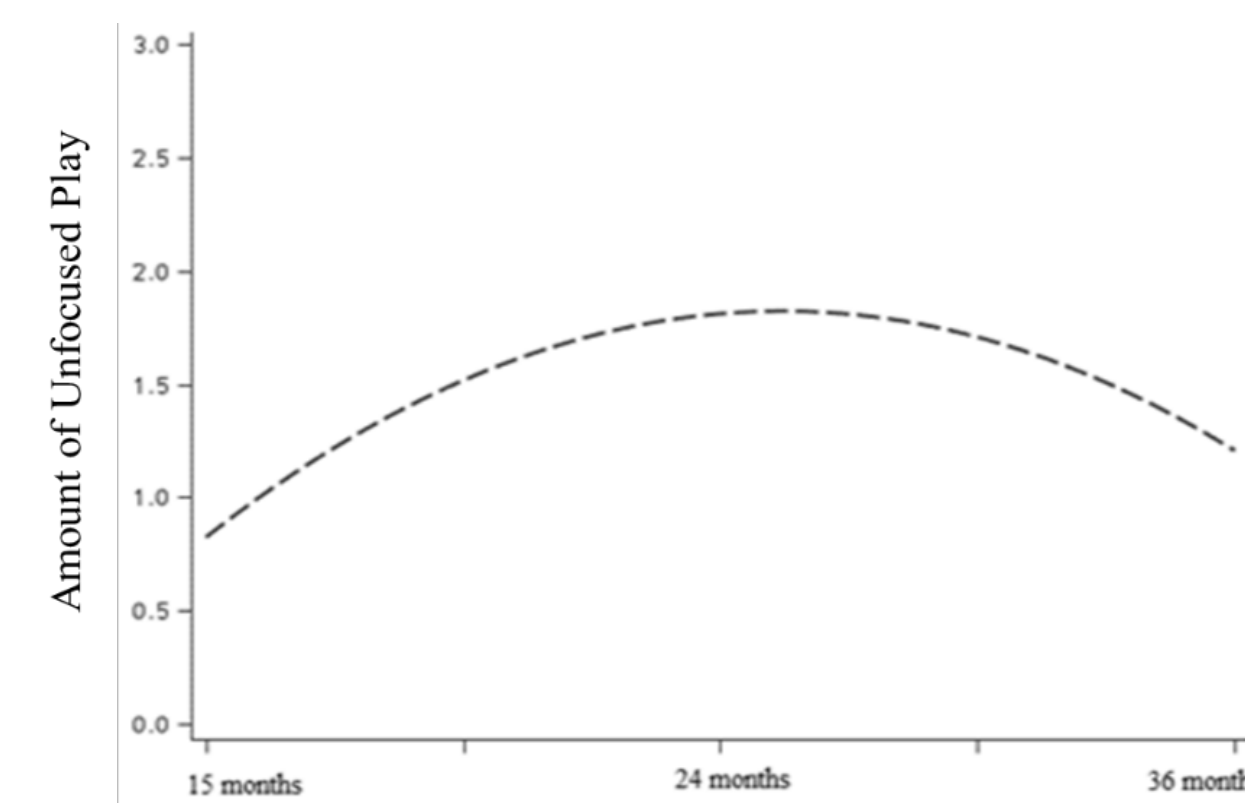
## Methods

- Participants: 1364 children at 15, 24 and 36 months.
  - data from the NICHD study of early child care.
- Measurements:
  - Unfocused play (UNP): play sessions videotaped and coded for disengaged activities per 15-second sampling period.
    - Number of bouts that a child stopped engagement with an object without shifting
  - Maternal sensitivity: coded during mother-child interaction.
    - Rating includes sensitivity to non-distress, intrusiveness and positive regard for the child, maternal supportive presence, hostility and respect for autonomy.
- Covariates: child gender, ethnicity, maternal education, marital status, language, child care quality, family income at children 15, 24 and 36 months.

## Results

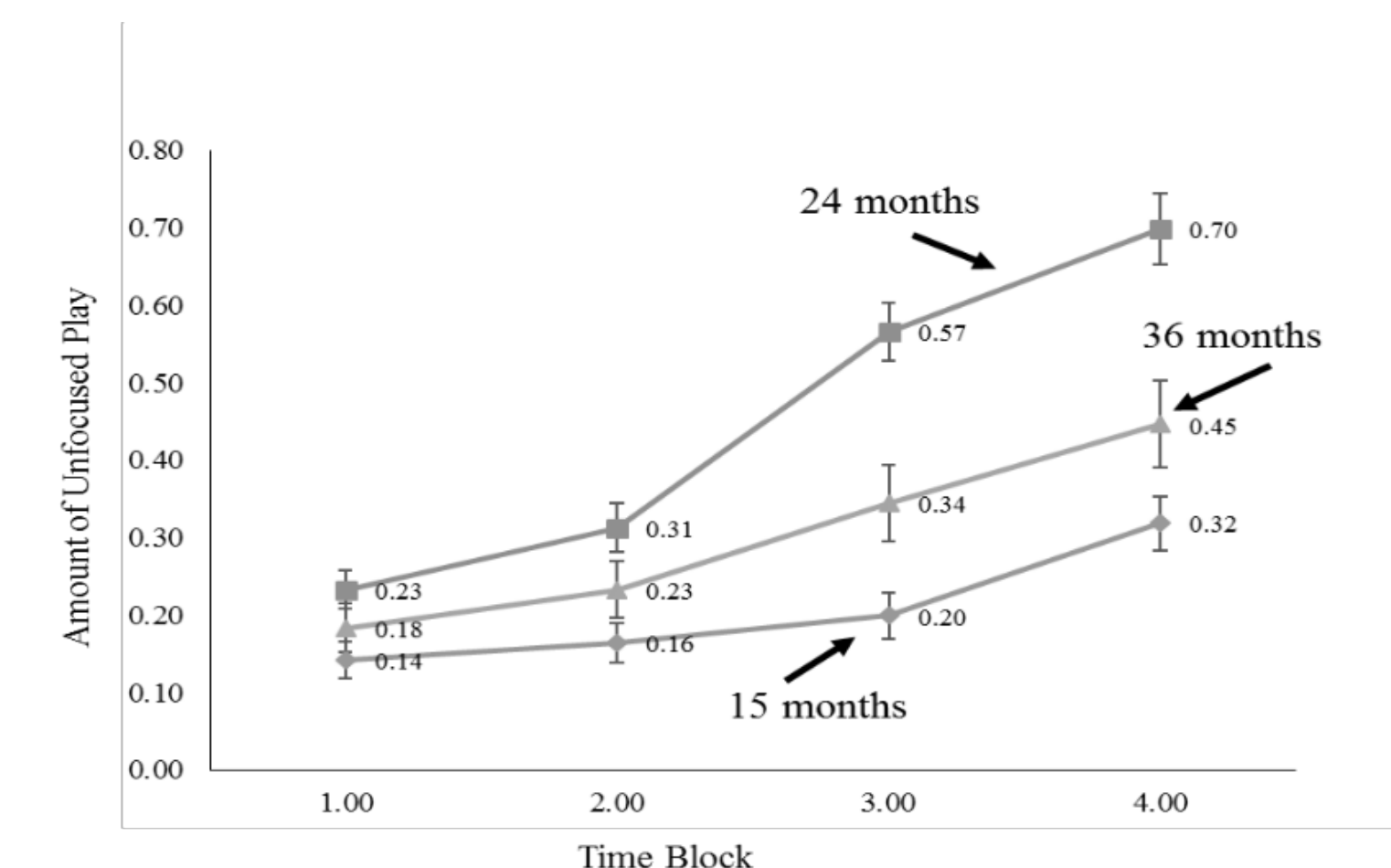
### Results of Multilevel Modeling

1. Quadratic trend of UNP: increased from 15 to 24 mos, peaked at 24 mos, declined at 36 mos
2. Maternal sensitivity – positive predictor of initial status of UNP
3. Boys & girls differed in changes in UNP
4. Significant effect of maternal marital status



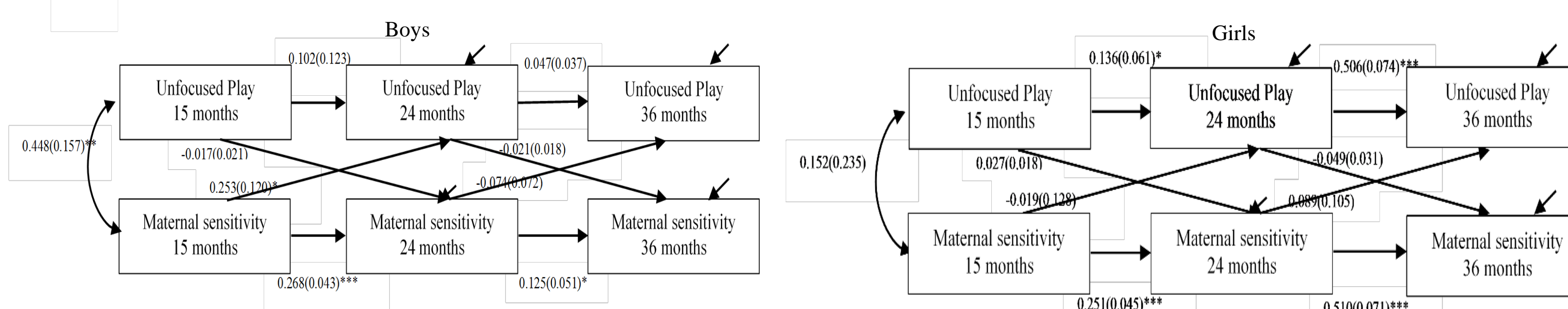
### Results of Changes in Unfocused Play Across Time Blocks

1. UNP was minimal during 1st time block
2. Children engaged in the largest amount of UNP during last block
3. 24 and 36 mos – steeper rate of increase in UNP over time than at 15 months



### Results of Structural Equation Modeling

1. Bidirectional association between maternal sensitivity and unfocused play varied by gender
2. For boys, maternal sensitivity at 15 months positively predicted unfocused play at 24 months, after controlling for unfocused play at 15 months and the other control variables.
3. Unfocused play at earlier time points did not predict maternal sensitivity at later time points, after controlling for earlier levels of maternal sensitivity and the other control variables.



## Discussions

- Unfocused play may be indicative of habituation
  - At each age, children were more involved in play when toys were novel.
  - Children habituated to the toys and became less engaged in play after continuously being exposed to the toys.
- Unfocused play displayed quadratic growth over age.
  - This may be caused by the interaction of the individual's development and the stimuli.
  - The difference in the amount of unfocused play between 15 and 36 months suggests that children habituate faster to toys over development, while the difference between 24 and 36 months suggests that the complexity/familiarity of the toys also matters.
- Maternal sensitivity at 15 months significantly predicted unfocused play at 24 months for boys.
- Unfocused play at earlier time points was not found to predict maternal sensitivity at later time points.

## Implications & Future Direction

- Play disengagement is not necessarily negative.
- Greater levels of unfocused play may be indicative of faster habituation, which could be the result of cognitive development.
- Maternal sensitivity is a positive predictor of unfocused play, and it drives changes in unfocused play for boys.
- Future studies are needed to examine what children are doing when they are engaged in unfocused play.

## References

- Fein, G. G., & Apfel, N. (1979). The development of play: Style, structure, and situations. *Genetic Psychology Monographs*, 1-27.
- Schöner, G., & Thelen, E. (2006). Using dynamic field theory to rethink infant habituation. *Psychological review*, 113(2), 273-299.
- Cooke, S. F., Komorowski, R. W., Kaplan, E. S., Gavornik, J. P., & Bear, M. F. (2015). Visual recognition memory, manifested as long-term habituation, requires synaptic plasticity in V1. *Nature neuroscience*, 18(2), 262-271.