

# 7-Year-Olds' Associative and Cooperative Play with Siblings and Friends

Claire Shroder, Maya Dengler, Haley Peck, Natalie Knox, Dhavan Brahmhatt, Abigail Harrington & Ganie B. DeHart  
State University of New York at Geneseo

## ABSTRACT

As part of a longitudinal study, we examined rates of associative and cooperative play in 7-year-olds' interactions with siblings and friends during free play, a construction task, and a board game. The nature of their social engagement depended on their relationship with their play partner, task at hand, and gender.

## INTRODUCTION

Sibling and friend relationships provide different contexts for interaction and development, in part because of differences in social engagement. As part of a longitudinal study of sibling and friend relationships, we examined 7-year-olds' associative and cooperative play with siblings and with friends during free play, while working on a construction task, and while playing an unfamiliar board game. The construction task was designed to foster cooperation, the board game to foster competition, and the free play segment to be open-ended.

We expected that both partner and task would make a difference in the relative rates of these two types of play. Because middle childhood friendships are typically more intimate and harmonious than sibling relationships, we anticipated that friends would spend more time in associative and cooperative play than siblings. We also anticipated that the construction task, which was designed to foster joint effort toward a goal, would produce the most cooperative play by both siblings and friends. Finally, we expected that girls would engage more readily in both types of play than would boys.

## METHOD

### Participants

78 white, middle-class 7-year-olds living in Western New York; half of them had a sibling who was 15-30 months, half 15-30 months younger.

The sibling pairs were approximately evenly divided between sister/sister, brother/brother, older sister/younger brother, and older brother/younger sister pairs. Each participant also invited a same-age, preferably same-gender friend to participate in the study with them.

### Procedure

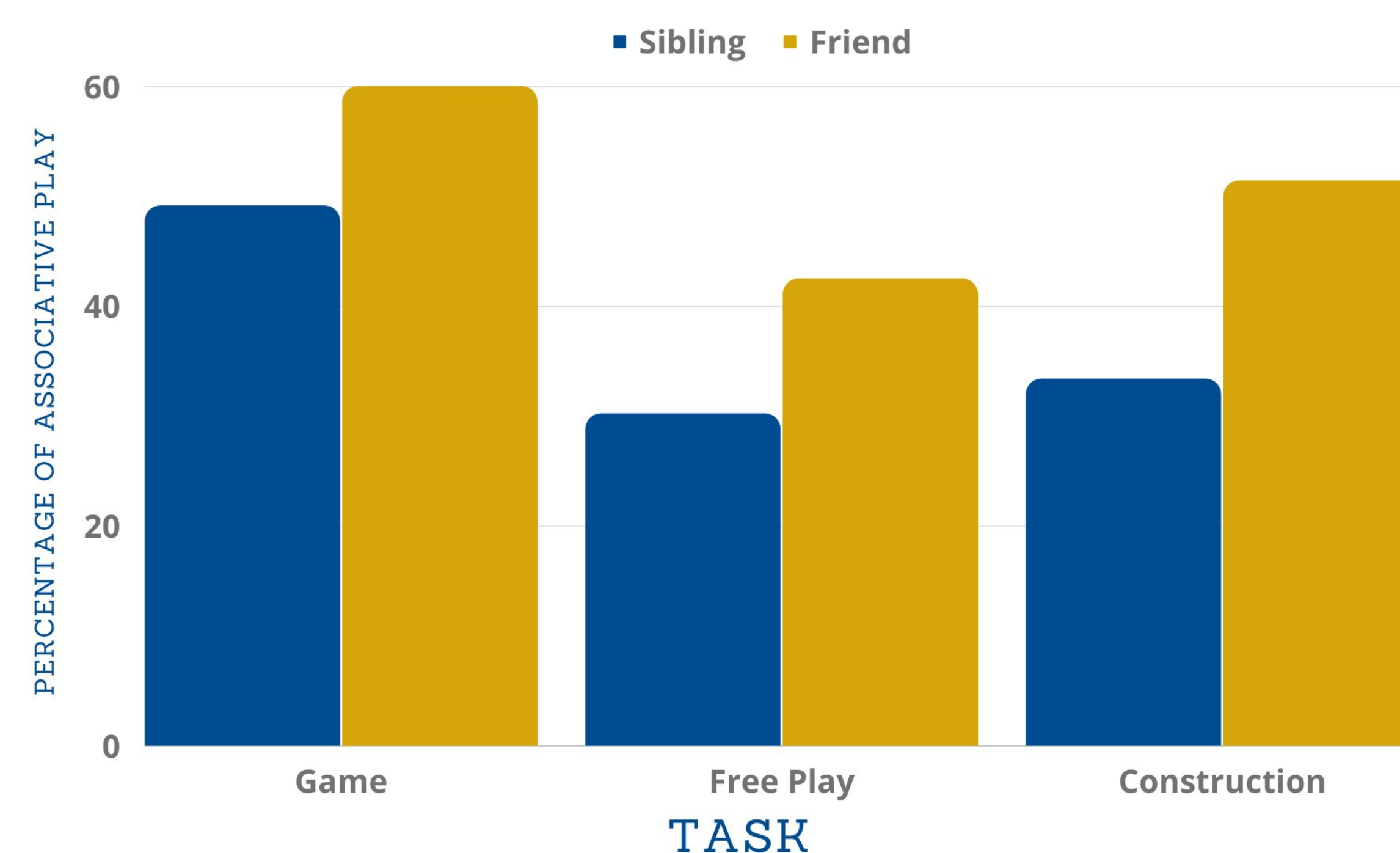
Sibling and friend dyads were videotaped on separate occasions in the target child's home. During each session, sibling and friend dyads spent 10 minutes constructing a model using pieces provided by the experimenters, 10 minutes playing an unfamiliar board game, and 10 minutes in free play with experimenter-provided toys.

Videotapes were transcribed and coded for type of social engagement at 10-second intervals. Cooperative play was coded for when the children were working on a shared task or goal, in a coordinated manner, with intense mutual social engagement. Associative play entailed mutual social engagement, with conversation or a common activity, but no clear common goal.

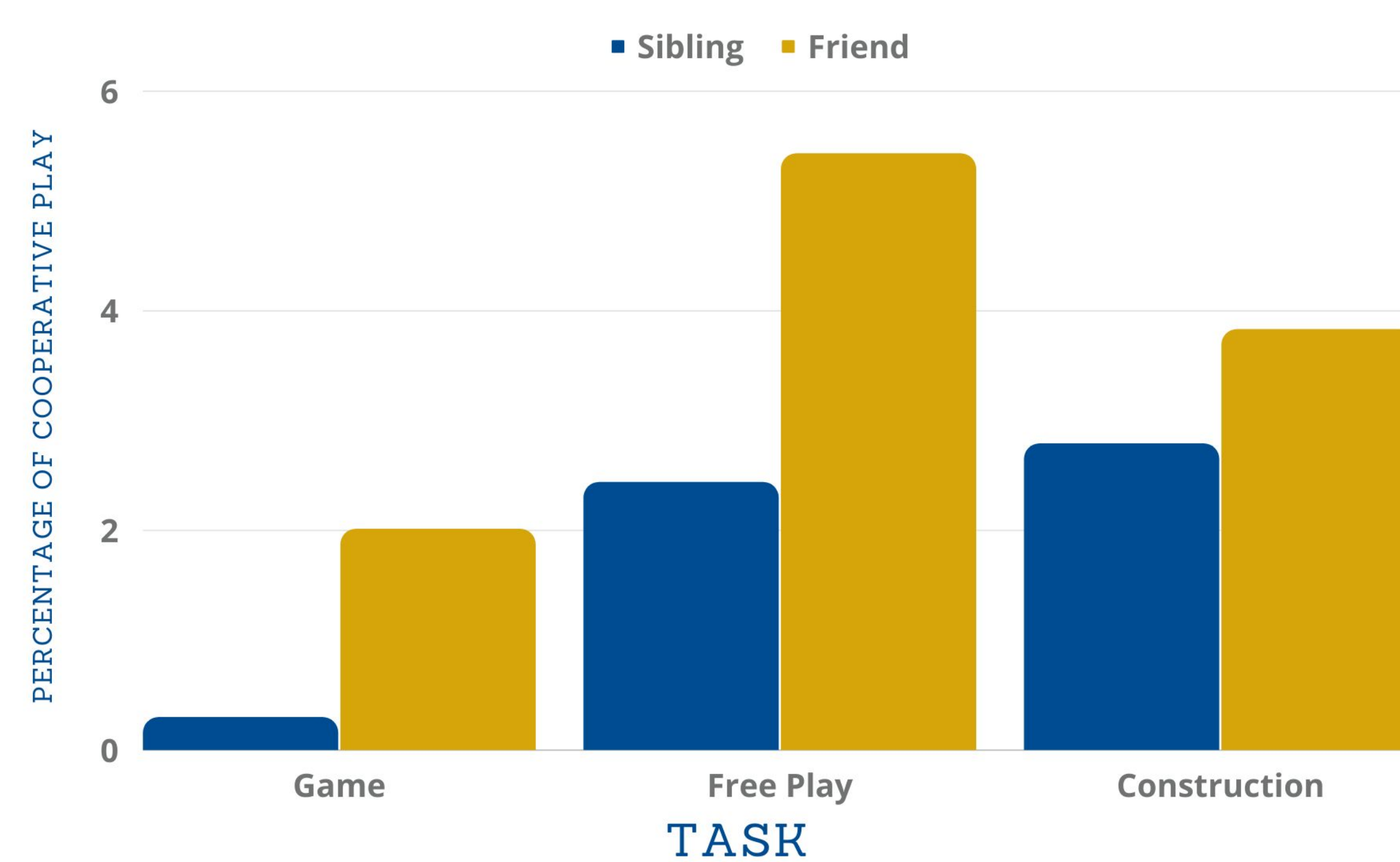
### Data Analysis

Relative occurrence of associative and cooperative play was analyzed using separate 3 (task) x 2 (partner) x 4 (gender composition: sisters, brothers, older sister/younger brother, older brother/younger sister) repeated-measures ANOVAs.

## Figure 1. Associative Play



## Figure 2. Cooperative Play



## RESULTS

### Associative Play (Figure 1)

- Friends engaged in more associative play than siblings did ( $p < .001$ ).
- Overall, children engaged in the most associative play during the game segment, followed by the construction task, and then by free play ( $p < .001$ ).
- However, there was also a significant partner x task interaction effect ( $p = 0.01$ ); the task effect held for friends, but siblings had approximately equal amounts of associative play during free play and the constructive task.
- There was a significant gender composition effect ( $p = .025$ ); older brother/younger sister pairs had the most associative play, followed by older sister/younger brother pairs, sister pairs, and brother pairs.

### Cooperative Play (Figure 2)

- Friends engaged in more cooperative play than siblings did ( $p = .006$ ).
- Overall, children engaged in the most cooperative play during free play, followed by the construction task, and then by the game ( $p < .001$ ).

## DISCUSSION

As expected, on all three tasks, friends engaged in more associative and cooperative play than siblings. Gender composition of sibling pairs made a difference in the rate of associative play, but not in the way we had expected; both sibling and friend interactions involving children from mixed-gender sibling pairs included more associative play than those involving children from same-gender sibling pairs. Task also mattered; both siblings and friends showed the highest rates of cooperative play during free play and the lowest rates during the board game. Surprisingly, the board game elicited more associative play than the other tasks for both siblings and friends.

The higher rates of associative and cooperative play with friends were unsurprising. The construction task did not elicit cooperative interaction; instead of working collaboratively, most children divided the task and worked separately. Because there are limited opportunities for cooperation while playing a competitive game, it is not surprising that the board game elicited low levels of cooperative play; however, board games do require mutual social engagement and provide many opportunities for conversation, fostering associative play. The free play segment facilitated cooperation in setting up and playing out pretend scenarios. Our results demonstrate that the nature of children's social engagement during play depends on various contextual factors, including partner, task, and gender.

