

# Gender Differences Between Preschooler's Problem Solving Solutions after Retelling Stories with Emotion

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## BACKGROUND

- Preschool children can describe a relationship between a felt emotion and an event (Pavarini & Souza, 2012) and can talk about solutions for problem solving (Linder et al., 2008).
- Preschool children's response to social problem solving have been found to be influenced by gender. Preschool boys provide more aggressive or retaliatory solutions and preschool girls provide more collaborative solutions (Walker, Irving, Berthelsen, 2002).
- Preschool children communicate differently about situations containing positive versus negative emotions (Laible, 2011).
- Compared to positive emotions, negative emotions encourage conversation because it involves a problem that needs a solution (Lagattuta & Wellman, 2002; McCabe & Rollins, 1994).

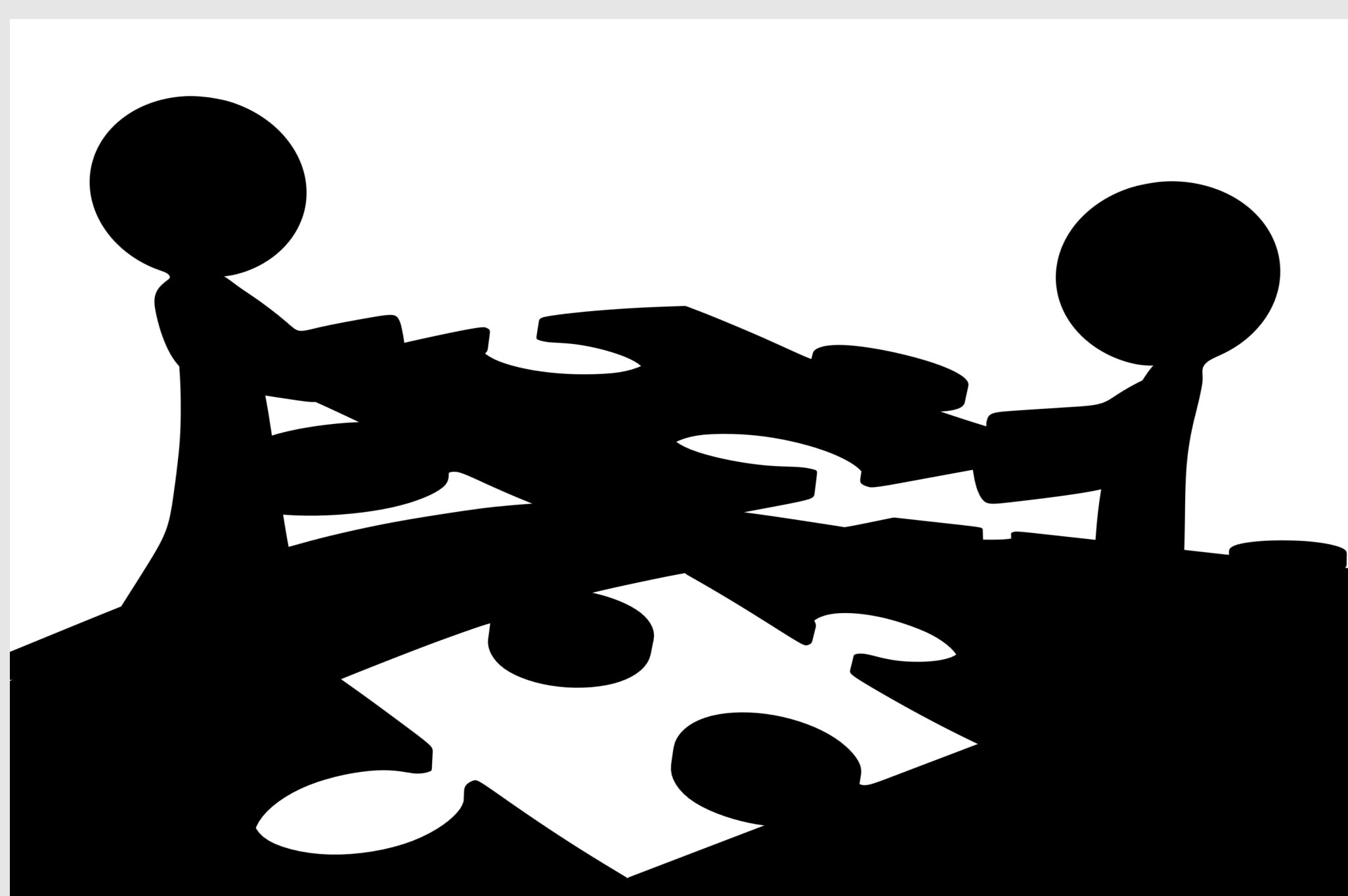
## PURPOSE

The purpose of this study was to investigate difference between the solutions preschool children, ages 4;1 and 5;3, provide for problem solving scenarios after retelling a story containing either positive or negative emotions.

### Research Question:

Is there a significant difference for gender in the responses of typically developing preschool children when they are asked a question about the character's response to problem solving, as measured by a rubric for level of relevance, after:

- retelling stories containing positive emotions?
- retelling stories containing negative emotions?



## METHODS

**Participants:** 22 preschool children (9 boys and 13 girls) between the ages of 4;1 and 5;3 (M = 4;8) from preschools in Brooklyn and Staten Island, New York

**Materials:** Children were presented with 2 negative and 2 positive stories (developed by the advisors) that were counterbalanced for order of presentation and gender of the main character.

•**Positive Emotions:** For example, a boy got a new shirt, wore it to school, and showed it to his friends.

•**Negative Emotions:** For example, a boy got a new shirt, wore it to school, and ripped it on a zipper.

After hearing each story with positive or negative emotions, the child was asked to retell the story and provide a solution to the questions "What should he/she do?" and "Anything else?" These responses were rated on a rubric for relevancy and given a score between 1-9.

### Data Analysis:

The codes for the rubric were : 1 the response was ambiguous, 2 the action response was not relevant, 3 the social response was not relevant, 4 the action and social responses were not relevant, 5 the action response was relevant, 6 the social response was relevant, 7 the action response was relevant and the social response was not relevant, 8 the social response was relevant and the action response was not relevant, and 9 the action and social responses were relevant. The codes were collapsed into categories, as shown below.

Rubric Code	Category Code
1, 2, 3, 4	No Response or Nothing Correct in Response
5, 6, 7, 8	Either a Relevant Action or Relevant Social Response
9	Relevant Action and Relevant Social Response

Two t-tests were conducted to determine if there was a significant difference between solutions to problem solving for male and female children after retelling stories with positive or negative emotions.



## RESULTS

Male and Female Solutions after Retelling Positive and Negative Stories

	Male (n=22)		Female (n=22)		t-value
	M	SD	M	SD	
Positive	14.67	5.895	11.85	5.843	1.109
Negative	16.67	8.529	14.23	5.51	.817

\*p<0.05.

Note. M=Mean. SD=Standard Deviation

## DISCUSSION

- There were no differences between male and female solutions when answering problem solving questions, as measured by a rubric of relevance, when children retold stories with positive and negative emotions.
- Clinicians using stories containing positive and negative emotions may not need to consider the child's gender when presenting stories for preschool children, ages 4;1- 5;3.

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