Prior research concerning young children's moral development has been conducted primarily in same-age environments. This study investigated whether preschool children's moral (helping) behaviors are related to younger peer-directed internal state language (talking about younger peer's feelings, wants, and abilities), perspective-taking skills, and attendance at a child development-oriented, mixed-age child care center. Twenty-one pairs of children (older peer: 4-6 years old; younger peer: 2-3 years old) were videotaped while playing with a toy and then with a puzzle. Results indicated that moral behaviors were positively and significantly related to frequency of vocal turns to younger peer, to perspective-taking ability, and to length of attendance at a mixed-age center. Also, data supported the developmental notion that perspective-taking ability is related to age. Results indicated that mixed-age group care settings may facilitate young children's demonstration and understanding of some aspects of moral development, helping behaviors and perspective-taking ability. Contains 12 references. (Author/BGC)
The Relation Among Moral Behavior, Peer-Directed Internal State Language, and Perspective-Taking Ability for Preschoolers in Mixed-Age Settings

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Moral Behavior in Mixed-Age Settings

Abstract

Prior research on young children's moral development has been conducted primarily in same-age environments. The purpose of this present research was to investigate whether preschool children's moral (helping) behaviors are related to younger peer-directed internal state language (talking about younger peer's feelings, wants, and abilities), perspective-taking skills, and attendance at a child development oriented, mixed-age child care center. Twenty-one pairs of children (older peer: 4-6 years old; younger peer: 2-3 years old) were videotaped while playing with four toys and 3 puzzles, which were presented singly. Results indicated that moral behaviors were positively and significantly related to frequency of vocal turns to younger peer, to perspective-taking ability, and to length of attendance at a mixed-age center. Also, the data supported the developmental notion that perspective-taking ability is related to age. Mixed-age group care settings may facilitate young children's demonstration and understanding of some aspects of moral development: helping behaviors and perspective-taking ability.
The Relation Among Moral Behavior, Peer-Directed Internal State Language, and Perspective-Taking Ability for Preschoolers in Mixed-Age Settings

Studies of young children's moral development have been conducted in same-age environments (e.g., Lickona, 1988; Nucci, 1987). Consequently, this knowledge about young children's moral behavior and development may be context-specific. There has been some research investigating the effects of mixed-age grouping on children's moral behavior. For example, research has found that preschoolers attending mixed-age grouping displayed cooperation (Elkind, 1987), prosocial (helping) behavior (Katz, Evangelou, & Hartman, 1990), and caretaking behaviors (Balaban, 1991; Roopnarine & Johnson, 1983; Whiting & Whiting, 1975). However, there have been no studies that have tried to link these and other aspects of preschoolers' social knowledge such as, knowledge of emotions and perspective-taking.

Mixed ages of children interacting in classrooms may be similar to mixed ages of siblings interacting in the home environment. Research of siblings has been used recently to study preschool children's affective knowledge involving how internal-state language (describing others' feelings, wants, and abilities) is linked to perspective-taking ability and prosocial behaviors (Howe, 1991). Thus, the primary question of this present study was whether the interaction
among mixed ages in a child care center can facilitate similar moral behavior and understanding in preschool aged children as displayed by preschool aged siblings when interacting with younger siblings at home.

Purpose

The purpose of the present study was to investigate whether preschoolers' moral behavior and moral understanding was related to attendance in mixed-age child care centers. It was hypothesized that preschool children's moral prosocial behavior that includes nurturing and helping the younger peer would be positively related to attending a child development oriented, mixed-age child care center. Also, it was hypothesized that preschool children's moral behavior while attending mixed-age center care would be related to preschool children's understanding of the emotions of younger peers. This understanding was determined from preschool children's use of younger peer-directed internal state language (talking about younger peer's feelings, wants, and abilities) and perspective-taking ability. These behaviors have been found in older siblings at home to indicate their understanding of their own and other's emotions and their moral prosocial skills (Howe, 1991).
Method

Subjects

Twenty-one pairs of children, an older peer (M = 4 years 9 months) and a younger peer (M = 2 years 7 months), were recruited from two midwestern, university-based, mixed-age child care programs. The older peer ranged in age from 48-71 months. The younger peer ranged in age from 21-41 months. The peer pairs had an average of 25 months age difference. The age differences ranged from 14-41 months.

Nearly all the children attending these child care programs came from families who were associated with the university, either as faculty, staff, or students. Socioeconomic status was not determined because of the varying professional statuses.

The children attended an average of 16 months in the mixed-age child care programs (Range = 1-46 months). Ninety-nine percent of the children were Caucasian. There were 10 male older peers and 11 female older peers. Fourteen of the older peers had siblings (10-younger, 3-older, and 1-both); seven had no siblings.

Procedure

During Session 1, each pair of peers was led to a room in which the two peers were videotaped while playing with several toys that were presented singly. Session 1 lasted 15-20 minutes. The videotapes were scored for (a) frequency
of vocal turns that the older peer gave to either the younger peer or to the researcher, (b) frequency and type of internal state language (feelings, wants, abilities) that was directed towards the younger peer, and (c) affective behaviors such as smiling at, laughing with, helping, grabbing, stopping, or protesting the play of the younger peer. Each videotape was reviewed until there was 100% agreement between the scorers for each item.

During Session 2 only the older peers were given the perspective-taking task. This task was used by Howe (1991). The perspective-taking task and scoring for each of the 18 questions was devised by Abrahams (1979). Session 2 scoring was completed by two trained persons who reviewed each child's audiotape and written protocol until there was 100% agreement.

**Tasks.** Session 1: The peer pairs (one older child and one younger child) were able to play together with one toy at a time. They were told to take turns putting all the pieces back together. As each toy was presented, the pieces were evenly distributed between the two children. The first toy presented was a graduated shapes form board with 20 pieces. The next game was a shape sorting ball with 14 different shapes. The next toy was a counting balls board with 5 pegs to handle from 1-5 balls. Each set of balls was a different color. The fourth toy was either a number board or a shape
sorter board. The last three toys were puzzles with 12-16 pieces.

Session 2: A week after Session 1, each older peer was asked 18 questions while looking at the perspective game involving a small child-doll, a dog, two hedges, a bird on one side of a hedge, and a bear (Abrahams, 1979). The child first sat in a chair from which the child could not see the bear behind the child-doll and was asked what he or she could see. Then the child moved to another chair for a different perspective while a research assistant took the child's first chair. The research assistant listened to music on headphones and could not hear the child's responses. The child was asked questions that required his or her new perspective and questions that required him or her to remember what he or she saw in the first chair in order to give another's perspective.

Results

For the first hypothesis, preschoolers' moral prosocial behavior was significantly and positively related to months of attendance at a mixed-age child care setting ($r = .42$, $p = .028$). (See Tables 1 and 2.) No differences were found for children with or without siblings.

For the second hypothesis, preschoolers' moral behavior was significantly and positively related to perspective-taking ability ($r = .50$, $p = .011$), and frequency of vocal
turns to the younger peer \((r = .46, p = .017)\). (See Tables 1 and 2.)

In this study, only 6% of the verbalized internal states were directed toward the younger peer and described the following younger peer's internal states: wants and abilities. The younger peer's feelings were never verbalized. This data did not match Howe's (1991) findings. Howe (1991) found that 18% of all vocal turns to the younger sibling contained references to all internal states.

A significant and positive correlation was found between perspective-taking and age \((r = .42, p = .031)\). However, perspective-taking ability was not significantly related to vocal turns to the younger peer \((r = .105, p = .325)\). (See Tables 1 and 2.) In a preliminary analysis to compare same-age \((N = 11)\) with mixed-age preschool children's behaviors, it was found that same-age grouped children displayed significantly more total negative behaviors toward the younger peer \((t\text{-test } F = 13.286, p = .001)\).

Months of attendance at a mixed-age child care center was significantly and positively related to perspective-taking ability \((r = .37, p = .048)\) and frequency of vocal turns to the younger peer \((r = .59, p = .003)\). No differences were found for children with or without siblings.

Discussion

Preschoolers' moral behavior as measured by frequency of helping was found to be related to length of attendance at a child development oriented, mixed-age child care
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center. Also, moral helping behavior was associated with perspective-taking ability and to frequency of vocalizations with the younger peer. However, the data did not support Howe's (1991) finding of a three-way link among prosocial helping behaviors, perspective-taking ability, and use of internal state language. Insufficient internal state language data prohibited the three-way link. Little internal state language may have occurred because the present investigation setting facilitated only cooperative play (working together to put all the pieces back on the toy) and little conflict (sharing toys with few pieces) as may occur at home with siblings (Howe, 1991). Also the recorded play interaction period was relatively short compared to the play time (80 minutes) recorded by Howe (1991). It may be that a home environment is more likely to encourage emotional expressions (Dunn, Bretherton, & Munn, 1987) in order to facilitate an emotional bond between siblings. A mixed-age child care center provides children the opportunity to bond with many people.

This study did support the developmental notion that perspective-taking ability is related to age. Also, it was found that perspective-taking ability was related to months of attendance at a mixed-age child care setting.

Despite the small number of subjects, the present study supported the notion that mixed-age child care settings may
facilitate preschool children's understanding and demonstration of some moral or prosocial behaviors (Katz et al., 1990). This finding is somewhat contrary to Bailey, McWilliam, Ware, and Burchinal's (1993) finding that mixed-age groups enhanced the social behavior of younger but not the older children.

This study also supports Piaget's (1932) notion that cooperation as part of moral development occurs when children interact with other children. The longer children attended the mixed-age child care program, the more frequently they displayed and understood some aspects of moral development: helping behaviors and perspective-taking ability.

Further research is being conducted in order to increase the sample size of mixed-age pairs of peers. A more definitive case for the moral benefits of mixed-age settings needs to researched by comparing mixed-age and same-age peers' moral behavior and understanding. It may be that children benefit morally from attending any child development oriented child care setting regardless of grouping strategy. With a larger sample, it also may be seen that prior experience with siblings may influence preschool children's moral behavior and understanding toward a younger peer.
References


Table 1
Means (SD) and Ranges for Age, Frequency of Affective Behaviors Directed Towards Younger Peer, Months in Child Care, and Perspective-Taking Ability Score (N = 21)

<table>
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<td>5.2</td>
<td>(3.5)</td>
<td>0 - 13</td>
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<td>3. Frequency of Physically Prohibiting Play (Negtouch)</td>
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<td>(2.2)</td>
<td>0 - 7</td>
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<td>4. Frequency of Vocal Turns to Younger Peer (VocalT)</td>
<td>12.3</td>
<td>(6.6)</td>
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<td>5. Months in Child Care (MoCC)</td>
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<td>(12.0)</td>
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<tr>
<td>6. Perspective-Taking Ability Score (P-Tscore)</td>
<td>35.6</td>
<td>(9.3)</td>
<td>12 - 46</td>
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Table 2

Correlation (r) of Age, Frequency of Affective Behaviors Directed Towards Younger Peer, Months in Child Care, and Perspective-taking Ability Score (N = 21)

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<td>-.03</td>
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<td>.27</td>
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<td>.10</td>
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<td>5.MoCC</td>
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<td>6.P-Tscore</td>
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*p < .05 1-tailed

**p < .01 1-tailed