Pretend Play: A Comparison of Children with Autism Spectrum Disorders and Typically Developing Children

Monica C. Tay

University of California, San Diego

Author Note

Monica C. Tay, Human Development Program, University of California, San Diego.

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Correspondence concerning this article should be addressed to Monica Tay at mtay624@gmail.com.
Abstract

Pretend play is an important skill that fosters creativity, language, and representational skills, but children with Autism Spectrum Disorders (ASD) do not display high levels of this play (Hobson, Lee & Hobson, 2009). The present study aimed to qualitatively compare the pretend play of children with ASD and Typically Developing (TD) children in order to gain insight into possible differences. A class with both children with ASD and TD children was observed through their daily morning schedule. The study utilized participant observations and the event-sampling of pretend play. The study found that children with ASD primarily display social imitative play, while TD children prefer to engage in make-believe play. Children with ASD did not show creative substitution, unlike TD children. Children with ASD also did not display attachment to their pretend play, while TD children were prideful and satisfied after engaging in pretend play. Children with ASD maintained neutral expressions during pretend play, as opposed to TD children’s expressed positivity. The results imply that more attention should be given to these areas to foster more creativity and the development of higher-level pretend play.

Keywords: Autism, Typically Developing Children, Young Children, Pretend Play, Creativity
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What do superheroes, astronauts, fairy princesses, and imaginary friends have in common? They are all common childhood fantasies, often acted out in an imaginary world with props or just pure imagination. This make believe play may seem like a childhood staple, and it can be difficult to imagine a child’s life without it. However, over the past ten years, there has been an 800% growth rate in a group of children who cannot engage in pretend play as easily: children with Autism Spectrum Disorders, also known as ASD (The Kinney Center for Autism Education and Support, 2012). ASD is characterized by multiple social, cognitive, and linguistic delays, but one of the most interesting delays children with ASD experience involves pretend play.

Pretend play can be defined as projecting an imaginary situation onto an existing one for entertainment, and utilizing symbolism to complete the scene (Hobson, Lee, & Hobson, 2009). Typically developing (TD) children develop their language, creativity, and emotional regulation through such pretend play (Hoffmann and Russ, 2012). This imaginative play also encourages creativity through novel uses of props and toys (Frahsek, Mack, Mack, Pfalz-Blezinger, & Knopf, 2010). Children with ASD, however, do not engage in typical pretend play, even when immersed in a rich social environment (Hobson, Lee, & Hobson, 2009). A possible explanation is that children with autism develop deficiencies in their theory of mind, which is the understanding that someone can have another point-of-view (Hobson, Lee & Hobson, 2009). Previous research has found that this deficit in theory of mind can be linked to problems with joint attention
(when two individuals focus their attention on the same object), which would lead to an underlying social deficit affecting pretend play (Rutherford, Young, Hepburn, & Rogers, 2007). Metarepresentation, the ability to understand that representations can be of anything possible, and that they can falsely represent the world, is necessary for imaginative play (Walker & Murachver, 2012). Children with ASD are capable of metarepresentation, but not high levels of pretend play (Hobson, Lee, and Hobson, 2009). When children with ASD engage in pretend play, their play often lacks typical creativity and sophistication (Manning and Wainwright, 2010). It is essential that children with ASD engage in pretend play, as previous studies have found that higher levels of play predicted higher social functioning (Manning & Wainwright, 2010). Despite these findings, previous research has not taken an in-depth look at the qualities of pretend play displayed by children with ASD and compared them to that of TD children concurrently. Previous research has gathered only quantitative results, which diminishes the importance of the pretend play’s content, which ranges in sophistication.

To further explore the creativity and meaning of pretend play in children with ASD, the present research compared TD children’s pretend play with that of children with ASD. The study took place at Alexa’s PLAYC, which was an inclusive preschool setting that included both children with ASD and TD children. By observing the two groups side by side, this study aimed to determine what qualitative factors distinguished the pretend play of TD children from the pretend play of children with ASD. The research collected qualitative observations through participant observations and the event-sampling of pretend play.
Method

Participants

The participants in this study were 12 children (7 males, 5 females; M_{age} = 33 months, range= 29 months to 38 months). The exact ages of the participants were not available due to participant confidentiality concerns, resulting in no standard deviation for the sample. There were four children with ASD and eight TD children (refer to Table 1 for gender and ASD ratio). The children were primarily European American, with one Latino child and two children of mixed ethnic descent. There was one drop out, who transferred from the morning class to the afternoon class early in the study. Names were changed for participant confidentiality.

Setting

The research study was conducted at Rady Children’s Hospital, Alexa’s PLAYC (Playful Learning Academy for Young Children), which was located in San Diego, California. As part of the Autism Discovery Institute, it was an inclusive preschool that had both TD children and children with ASD in the same classrooms. The observed children were in a transitional stage, so the program was semi-structured, and focused on social growth. There were four different teachers, and there were always three teachers with the class. The observed morning routine included unstructured play, breakfast, outdoor play, and circle time.

Procedure

Observations were made over ten weeks for a total of 40 hours, and took place in the morning. This was convenience sampling, as this classroom had ample periods of free play and children who did display pretend play. The research made participant
observations and used event-sampling of pretend play. Pretend play was defined as play that involved representation and imagination (Hobson, Lee, & Hobson, 2009). Refer to Table 2 for examples of play. The study recorded instances of pretend play from both groups, and analyzed the complexity of play involved. An analysis yielded qualitative results.

**Results**

After the data had been coded and analyzed, four trends in the pretend play of children with ASD and TD children emerged: social imitative play in children with ASD, little creative object substitution in children with ASD, lack of attachment towards pretend play in children with ASD, and neutrality towards pretend play in children with ASD. These trends were labeled as to emphasize the deficit in pretend play that children with ASD encounter, and were contrasted with the pretend play of TD children.

**Social Imitative Play in Children with ASD**

Social imitative play was operationally defined as pretend play that involves imitating daily routines (Hartley & Sikora, 2010). Make believe play, on the other hand, was operationally defined as play involving the imagination and elements of fantasy (Hartley & Sikora, 2010). Children with ASD engaged primarily in this social imitative play, as contrasted with the make believe play of TD children. The following examples demonstrate this trend.

Johnny (ASD) took an empty shampoo bottle and opened the lid. He turned the bottle upside down and squeezed it with one hand, holding a hand underneath. He then brought his hands to his head and rubbed his hair.

Here, Johnny was pretending to engage in the daily routine of washing hair.
Children with ASD were also able to transfer actions onto other objects, as demonstrated in the following example:

Daisy (ASD) and Rose (ASD) ran up to the doll center. Daisy picked up a baby bottle and held it to a doll’s mouth, saying, “Drink!” Rose took a toy toothpaste tube, squeezed it over a toothbrush, and rubbed the toothbrush in circular motions on the doll’s mouth.

TD children primarily engaged in make-believe pretend play, such as in the following situation:

Tiffany (TD) suddenly ran from the doll center to a table in the middle of the room. She climbed onto a chair and stood on it, calling “Alligator! Alligator!” She pointed at the empty floor around her and exclaimed, “They’re gonna eat me!”

As this shows, TD children often referred to fantastical ideas in their pretend play.

An exception to this trend was Kelly (TD), who preferred to engage in social imitative play. Another exception was that TD Children occasionally did engage in social imitative play, notably when a teacher prompted them through demonstration.

**Little Creative Object Substitution in Children with ASD**

Object substitution was operationally defined as when an object is repurposed to fit the child's pretend play needs (Frahsek et. al., 2010). Children with ASD typically used objects for their intended purpose, and evaluated objects at face value (e.g. using a toy cash register to put play money inside), such as in this following example.

Rose (ASD) picked up the toy lawnmower and held it in both hands. She walked over to the grassy area and pushed the lawnmower back and forth rhythmically.

TD children, on the other hand, repurposed objects creatively by using them to represent dissimilar objects (e.g. a doll as a gun), such as in the following example.

Eddie (TD) walked over to the sandbox and pulled out a sand funnel. He shook it to dislodge the sand, then brought the small end of the funnel to his mouth. He began to blow into it, and vocalized, “doo doo doo!” He proceeded to run around the playground making these noises and blowing into the funnel.
An exception to this trend was Kelly, who did not display novel object substitution, and used objects stereotypically.

_Lack of Attachment Toward Pretend Play in Children with ASD_

An attachment toward pretend play was operationally defined as the interest and pride a child showed in a toy (Hobson, Lee, and Hobson, 2009). Children with ASD did not appear fully engaged in their pretend play, as they were easily distracted by other children and toys. They did not display pride in their pretend play by showing it off, or take ownership of it through personalization, such as in the following.

Daisy (ASD) picked up a toy cow and began to walk it along the table.
Teacher 1: Hi, Daisy! What are you playing with?
Daisy: Cow.
Teacher 1: I see! Does he have a name?
Daisy: No.
Daisy then left the toy cow on the table and ran off towards the slides.

When teachers approached Daisy, she did not attempt to show the teachers what she was playing with. She left the cow on the table and never returned to play with it. TD children, on the other hand, showed clear attachment to their pretend play, as well as ownership and pride, as evident in the following example.

Tiffany (TD) took a figurine and two playsets, a doll house and a school. She placed the figurine in the school and said, “Look, he’s going to school!” She then proceeded to sing the alphabet song and clapped. She took the figurine, moved it back to the doll house, and said, “Now he is sleeping. See, he has a bed.” A teacher then called Tiffany over for five minutes. When Tiffany returned, she picked up the figurine and resumed her play.

Tiffany was eager to explain her play set up to others, and gladly answered questions. She appeared immersed in her pretend play, and did not get distracted from it easily.
Neutrality towards Pretend Play in Children with ASD

Positivity and fun towards pretend play was defined as displaying laughter or smiling (Hobson, Lee, and Hobson, 2009). Children with ASD did not change their expressions while engaging in pretend play, as shown in the following situation.

Rose (ASD) held the baby doll in the crook of her arm, with a spoon in the other. She held the spoon to the doll’s mouth, but did not smile at the doll. She did not smile or laugh at all during this moment of play.

The pretend play motions of children with ASD also lacked energy, and they did not yell in happiness, as they often did during snack.

TD children, on the other hand, did display happiness while engaging in pretend play; many smiled while playing, and laughed out loud, as evident in this example.

William (TD) was playing in the sandbox, and made a large pile of sand. A peer asked what it was, and he replied, “It’s a fort!” with a big smile. He then began to talk about his plans for the fort, which included a moat.

Excitement was evident in TD children, evidenced by their eagerness and willingness to share and explain what they were doing.

One exception to this trend was Johnny, a child with ASD who did smile and show positive emotions on his face while engaging in pretend play. Johnny smiled in general through all activities as well, such as circle time and snack time.

Discussion

The present study aimed to observe children with ASD and TD children side by side in their pretend play, and to observe qualitative differences or similarities. The sample consisted of one class of 12 students, and results yielded four distinct trends.

Social imitative play was prevalent amongst children with ASD, while TD children mostly engaged in make believe play. The routines present in social imitative play were
daily behaviors, such as taking a shower. Both groups would have been equally exposed to daily routines, so the amount of exposure would not explain this trend. However, the difference between the two groups can be explained through the idea that children with ASD have a deficit in their theory of mind (Rutherford, Young, Hepburn, & Rogers, 2007). Children with ASD would be less proficient at understanding another’s point of view, and would have difficulty with role playing, which is essential for pretend play (Hobson, Lee, and Hobson, 2009). Make-believe play requires the ability to imagine what is not actually present, and the skills to adopt another perspective or identity (Hartley & Sikora, 2010). Children with ASD are capable of metarepresentation (shown by play such as washing with imaginary shampoo); thus, it is the second requirement that prevents them from achieving make-believe play (Walker and Murachver, 2012).

Unlike TD Children, children with ASD did not engage in creative object substitution. This finding supports the idea that children with ASD engage in pretend play in a less creative and sophisticated manner than do TD children (Manning and Wainwright, 2010). As creative object substitution indicates an advanced representational ability (Frahsek et. al., 2010), children with ASD may have a diminished representational ability. This would explain why children with ASD did not transform objects into novel ones; without the fully developed ability to imagine absent objects, they would not be able to project these ideas onto a present object.

Children with ASD displayed a lack of attachment to their pretend play, which was defined by evident interest and pride (Rutherford, Young, Hepburn, & Rogers, 2007). This finding can be supported by the previous finding that children with ASD
display a deficit in social and self-awareness (Hobson, Lee, and Hobson, 2009). Children with ASD might not be fully aware of their own involvement in their pretend play, which would lead to a lack of attachment. A child with ASD might not understand that they can fully control their pretend world, and therefore, would not be able to claim ownership of it. This might explain why Daisy was so quick to walk away from the toy cow that she was playing with: she may not have been aware of her role in play. The observation that TD children seemed to derive pride from this control supports the idea that children with ASD may not understand their self-involvement in imaginative play.

The displayed neutrality in emotion indicates that the children with ASD likely were not feeling playful or having fun (Hobson, Lee & Hobson, 2009). TD children did display positivity towards pretend play, and even tried to engage their peers in their play. With the aforementioned lack of self-awareness, children with ASD would not experience positive emotions such as pride or satisfaction from their pretend play. The neutrality can also be supported by the idea that children with ASD have a deficit in their social learning and background (Hobson, Lee & Hobson, 2009). This social background may be necessary for the enjoyment of pretend play, as TD children enjoyed peer interactions and communication that allowed them to share their pretend play.

One of the frequent exceptions to these trends was Kelly, a TD child, and one of the youngest of her peers. She did not have a complete grasp of language yet, which might explain for why she did not role-play, as most observed TD children utilized language in their pretend play. Furthermore, theory of mind develops through a child's development, which comes with age (Walker and Murachver, 2012). A lack of language and immature theory of mind may have been the reason behind her lack of creative
pretend play. Johnny (a child with ASD), an exception to the neutrality trend, was usually smiling and laughing throughout all activities, implying that a child’s personality or temperament might play into the enjoyment of pretend play.

The implications from this study suggest that alternative approaches to working on pretend play in children with ASD should be taken into consideration. The social imitative play of children with ASD implies that the main problem with pretend play lies in the inability to take on a creative, novel point of view. The finding that children with ASD engage in less object substitution implies that more attention should be given towards fostering creativity in children with ASD; learning to use objects in a novel manner would allow for the growth of the imagination, as well as the reduction of stereotypical play. A lack of attachment towards pretend play implies that children with ASD may benefit from gaining an understanding their control and power within their imagination. Finally, the neutrality displayed towards pretend play indicates that the dilemma of pretend play in children with ASD may be circular in nature; if they do not find an activity fun, children are less likely to engage in it. An exception to this trend implies that a child’s personality and temperament may play a large role in his or her approach to pretend play. Therefore, it is important to make pretend play appealing towards children with ASD, and to consider methods that would appeal to the individual, such as including special toys or rewards.

One limitation of the present study was that it did not consider teacher influence. This was observed through the exception of when TD children engaged in social imitative play due to teacher prompting. The observed teachers often taught children, whether with ASD or TD, how to play with certain toys. Furthermore, when teachers saw
children playing with toys in a non-stereotypical fashion, they often intervened and corrected the child. The mere presence of adult figures also may have skewed the results. Some children tended to cling onto adult figures and follow them around instead of engaging in any type of play. Another limitation of this study was that many of the children were not well versed in the concept of sharing or accommodating yet. There were many conflicts over toys, and some children would refuse to play with anything else until they obtained the desired object. This inability to share or settle on another toy inhibited some children’s pretend play, as they were too preoccupied to engage in it.

As this study took place over only ten weeks, a future study may take the form of a longitudinal study, in order to observe which trends persist throughout development, and which ones gradually fade. A future study may also investigate imitation’s role in pretend play with children as ASD, as it might provide another teaching method for learning creativity. A future study might also focus on a social and communicative aspect; it is possible that children with ASD may not understand the concept of fantasy, or have the words and symbols necessary for representation.

Creative, pretend play is likely a fond memory for most people, who can look back at their childhood and remember their imaginary friends and adventures in far away lands. Children with ASD may show reduced creativity and sophistication in their pretend play, but that does not mean that they will never get to experience the same memories. A qualitative analysis indicates that they do experience earlier stages of pretend play, and isolates individual variables that can be worked on and improved. The possibility for high levels of pretend play in children with ASD is out there, and may become a reality with further study.
References


Table 1

*Classification of Children and Teachers by Gender*

<table>
<thead>
<tr>
<th>Classification</th>
<th>Children with ASD</th>
<th>TD Children</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>2</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Females</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
### Examples of Type of Play

*Examples of Type of Play (Hobson, Lee, & Hobson, 2009)*

<table>
<thead>
<tr>
<th>Pretend Play</th>
<th>Sensorimotor Play</th>
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</thead>
<tbody>
<tr>
<td>Social Imitative Play</td>
<td>Make Believe Play</td>
</tr>
<tr>
<td>Talking on toy phone</td>
<td>Playing Superheroes, Pirates, etc</td>
</tr>
<tr>
<td>Feeding a doll</td>
<td>Going on a Treasure Hunt</td>
</tr>
<tr>
<td>Putting on “makeup”</td>
<td>Imaginary Friends</td>
</tr>
<tr>
<td>Cooking with toy food</td>
<td>Using a broom as a horse</td>
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<td></td>
<td>Swinging</td>
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<td></td>
<td>Playing on Slides</td>
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<td>Biking</td>
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