

Owner Dolls Interpretation Guide

EXPLORING CHILDREN'S UNDERSTANDING OF WHEN OWNERSHIP CHANGES

Background

“Ownership” is the state of a person owning an object, that is, the object *belongs to* that specific person. Because ownership is not a physical characteristic of an object (e.g. color or size), young children may initially have a hard time identifying who owns an object and under what circumstances that ownership can change. Children may also have difficulty distinguishing between legitimate and illegitimate object transfers (e.g., “giving” versus “stealing”). As a result, children may use different strategies to help them form their concepts of ownership and ownership transfer. For example, research has shown that children may possess simple biases that affect the way they decide ownership. Regardless of whether these biases are correct or not, children may use them as they do not yet have a mature understanding of ownership and ownership transfer. Children who demonstrate **first possessor bias** believe that the first person in possession of an object, regardless of the type of transfer that occurs, is the rightful owner in all circumstances. For example, a child with first possessor bias might correctly assume that in the case of stealing, the original owner of the object before the theft is the rightful owner; however, they may also incorrectly assume that a person giving a gift is the rightful owner of the gift rather than the person receiving the gift. Conversely, children who demonstrate **current possessor bias** believe that the person who is currently in possession of the object, regardless of the type of transfer that occurs, is the rightful owner in all circumstances. For example, a child with current possessor bias might correctly think that in the case of giving, the person receiving the gift would take ownership over the object; however, they might incorrectly assume that a person who stole an object would be the rightful owner because s/he is currently holding the object.



This activity is based on a study conducted by researchers at Harvard University, who explored how children develop a mature understanding of the different forms of object transfer and how biases may affect young children's understanding. The researchers conducted two experiments with children ages 2 to 5 years. In **Experiment 1**, participants were presented two stories describing the transfer of a toy between two “children” (represented by two puppets). In one story, the toy was transferred between the two puppets in the form of giving a gift at a birthday party. In the second story, the toy was transferred between the puppets in the form of stealing. After each story, the researchers asked child participants questions to assess their understanding of who the rightful owner was at the end of the story. In **Experiment 2**, the researchers again told children giving and stealing stories, but with “adult” puppets instead of “child” puppets to assess if this would change the responses children had to the stories. The giving and stealing stories were modified so that they were consistent with adult interactions (e.g., a lamp and blanket are exchanged instead of toys).

Researchers found:

- Two and three year olds often demonstrated a “first possessor bias” - they assigned ownership of an object to the first owner regardless of whether or what form of object transfer took place.
- Four year olds showed a mature understanding of ownership transfer between children for both giving and stealing; however, they struggled with distinguishing the owner in object transfer between adults – they tended to show a “current possessor bias”.

- 5 year olds were able to distinguish the correct owner of the objects after the object transfer had taken place for both the child and adult stories, demonstrating a mature understanding of ownership and ownership transfer.

These results confirmed that, until the age of five, children generally do not have a mature understanding of ownership and often make judgments based on simple biases.

Why is this important?

The results of this study helps us understand how children begin to develop a mature understanding of ownership, providing insight into why young children struggle with understanding what objects belong to them and what objects belong to others. Understanding children’s thought processes in assigning ownership is especially important as toddlers transition to preschool and encounter more complex forms of ownership such as sharing. A majority of conflicts between children at this age center around property disputes (e.g. “MY toy!”) – these children are struggling with the concept of ownership and do not yet understand when ownership should and should not change. Although young children may not have a full understanding, their daily life affords many opportunities to observe and practice social norms of ownership transfer, such as receiving a birthday gift, returning a library book, or donating old clothes and toys. By understanding how children perceive these transfers, we gain a deeper understanding of how to support their own developing conception of ownership.

Method

Recruiting Methods

1. Introduce yourself to parents and explain that you are playing a game based on research conducted by scientists from Harvard University, looking at how children think about ownership. Ask if their child would like to participate/play the game.
2. Approach the child and ask if they are interested in playing a game to help you decide which puppet gets to take a toy home with them.
3. Walk around with a puppet to draw interest to the game.

Important Modifications

- In the interest of keeping the interpretation short and engaging, the “giving” story for the adult puppets was omitted from the museum activity, as the results of this story yielded the same results as the “giving” story for the child puppets.
- In the original study, the question “[second possessor] is holding the toy at the end of the story. Does s/he need to give the toy back to [first possessor]?” was used to determine whether children demonstrated a “loan bias”. Because no loan bias was seen in any of the stories, this question was omitted in the museum version. The other two questions in the research study were shortened into a single, more concise question – “Who should take the toy home?”
- Prototyping in the museum revealed that children’s comprehension is aided by the use of visual cues when telling the stories. For example, it is helpful to hold up a specific puppet whenever that puppet’s name is mentioned in a story – this helps children keep track of which puppet is which. The educator should also be careful to leave the object in the story centered between the two puppets to prevent affecting children’s responses with a “proximity bias” (e.g. the toy car is near the girl puppet so it belongs to her).

Materials

- 1 male child puppet, 1 female child puppet, 1 male adult puppet, 1 female adult puppet
- Toy horse, toy car, doll scarf
- Plastic cups (to keep the puppets sitting upright)

Activity Instructions (the “study method”):

Please see *Appendix A* for a print-ready script

In this activity, we focus on how children understand transfers of objects such as receiving an object as a gift or obtaining an object through stealing.

1. Explain the rules to the child: *Hi! I’m going to be telling you some stories and at the end I’m going to ask you some questions about the stories. Are you ready?*
2. Introduce two of the child puppets to the child: *“This is my friend Sam, and this is my friend Jordan. Do you want to say hi to Sam and Jordan?”*
3. Present the first story and act it out with the puppets to provide a visual:
4. *It’s Jordan’s birthday and Sam wants to give her a birthday present. So Sam looks around his room and decides to give his toy horse to Jordan for her birthday. Sam gives the toy to Jordan and Jordan says, “Thank you! I can’t wait to take it home and play with it!”*
5. Put the toy horse between the two puppets and ask the child: *At the beginning of the story, Sam was holding the toy, and at the end of the story Jordan is holding the toy. Who should take the toy home? Why?*
6. Present the second story:
7. *On a different day, Sam decided to bring his toy car to the park. Jordan is also playing at the park. Sam puts the toy car down to go drink some water. While Sam is drinking water, Jordan sees the car and takes the car. When Sam comes back from the water fountain, he can’t find his car and says, “Oh no! My car is gone!”*
8. Put the toy car in between the two puppets and ask the child: *At the beginning of the story Sam was holding the toy and Jordan is holding the toy at the end of the story. Who should take the toy home? Why?*

Switch the child puppets to adult puppets and tell the “Stealing” story again (with modifications):

1. Introduce two of the adult puppets to the child: *“This is Mr. Smith and Mrs. Jones. Do you want to say hi to Mr. Smith and Mrs. Jones?”*
2. Present the story:
3. *Mrs. Jones wore her scarf to the park. Mr. Smith who is also at the park. Mrs. Jones puts her scarf on the bench next to her and goes to talk to her friends. While Mrs. Jones is talking to her friends, Mr. Smith sees the scarf and takes it. When Mrs. Jones comes back she can’t find her scarf and says, “Oh no! My scarf is gone!”*
4. Put the scarf between the two puppets and ask the child: *At the beginning of the story Mrs. Jones is holding the scarf and Mr. Smith is holding the scarf at the end of the story. Who should take the scarf home?*
5. Allow the child to play with the puppets and toys while you talk to the adult about the research.

Activity Tips

Help Parents Observe:

- Does your child correctly identify the end-owner of the object in all of the stories, or only in certain stories? If only in certain stories, which stories did s/he struggle with?

- Were your child’s answers consistent between the stories using child puppets and the stories using adult puppets?
- Did your child demonstrate any simple biases? If so, which one?
- How certain was your child of the answers s/he gave?

Keeping Kids Interested

- Allow the child play with the puppets and the other objects/toys
- Ask the child to make up his/her own stories where the characters are giving or sharing the objects
- Ask the child to identify differences between the different puppets
- Ask the child if s/he has ever received or given a gift

Results of the Original Study

The results of the study indicated that participant age, the type of object transfer (e.g. giving or stealing) and whether the transfer took place between children or adults all had an impact on how children responded when asked about the rightful owner of an object. In **Experiment 1** - the version with child puppets – toddlers (2 and 3 year-olds) demonstrated a first possessor bias (see Figure 1). In the stealing story, toddlers showed that they could correctly assign ownership to the first possessor. However, in the giving story, toddlers on average showed that they did not correctly understand the object transfer, as they still chose the first possessor as the end-owner, despite the object actually belonging to the current possessor at the end of the story. The preschoolers (4 and 5 year-olds) in the first experiment showed a more mature understanding of ownership transfers, correctly assigning ownership in both the giving and stealing stories. The results of the study indicate that although all children understood who the owner of an object should be in the case of theft, an understanding of who the owner of an object should be in the case of giving is something that develops as children get older and overcome their naïve biases. All age groups on average showed correct judgments for the stealing story; however, it was only as age increased that there was an increase in the correct judgments of ownership for the giving story.

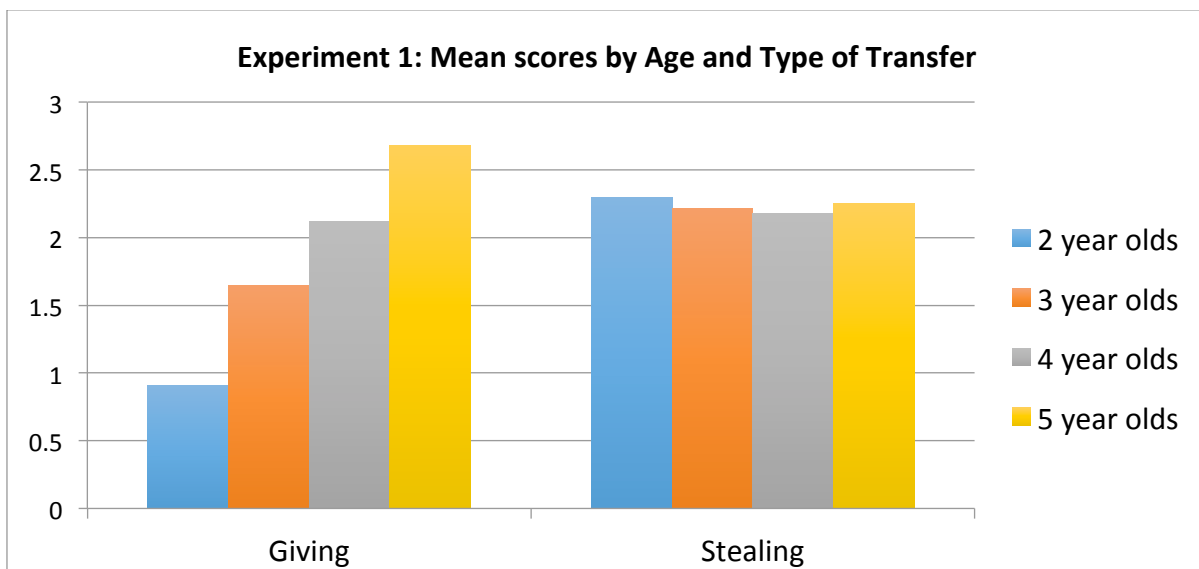


Figure 1: Children’s “scores” for giving and stealing stories in Experiment 1. “Participants were given 1 point for identifying the correct owner for each question (3 total), and 0 points for identifying the incorrect owner

In **Experiment 2**, results were similar to Experiment 1 across all age groups, with one exception: 4 year olds in the case of stealing (see Figure 2). 4-year-olds were more willing to allow adult puppets keep an object regardless of the legitimacy of the object transfer (they showed a current possessor bias). They seemed to have difficulty distinguishing between legitimate and illegitimate object transfer between adults. The researchers propose that this is because, by four years of age, children have likely noticed that sometimes adults are allowed to take objects away without permission (e.g., confiscating a toy). 4-year-olds may have used this knowledge as a factor in their deciding about ownership in the stealing story – perhaps thinking: “sometimes adults are allowed to take things”. More specifically, they will allow adults (but not children) to keep objects that they took without permission. In comparison, the toddlers (2 and 3 year olds) identified the correct owner in the adult stealing story, though this was most likely due to a first possessor bias, and the 5 year-olds were able to assign ownership to the correct owner in both legitimate and illegitimate forms of object transfer between adults.

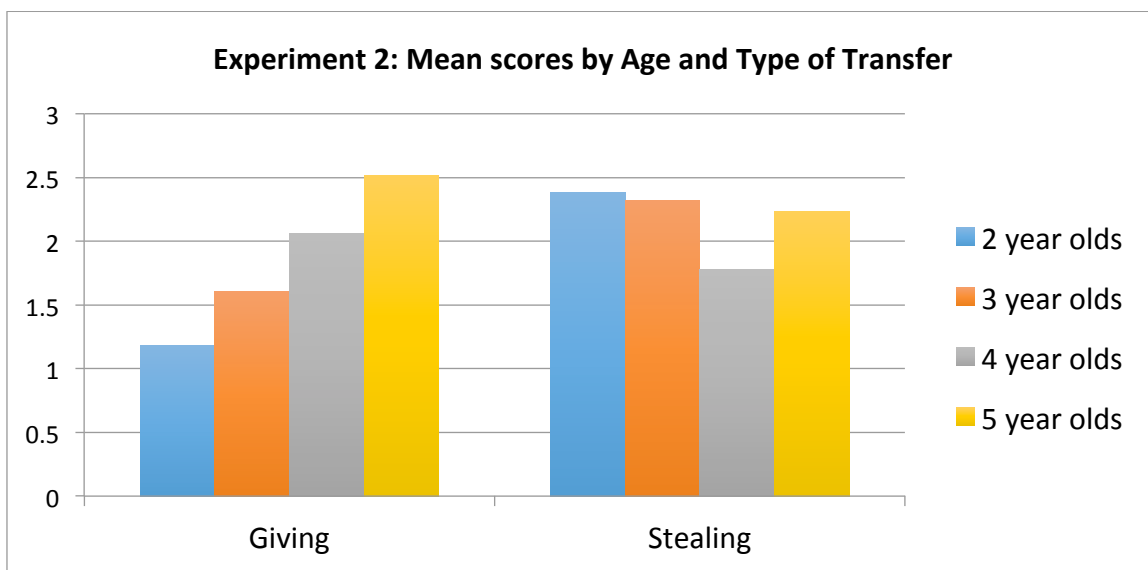


Figure 2: Children’s “scores” for giving and stealing stories in Experiment 2. Participants were given 1 point for identifying the correct owner for each question (3 total), and 0 points for identifying the incorrect owner

Larger versions of the graphs can be found in *Appendix B*

Taken as a whole, the data from both experiments in the study seem to indicate that a fully mature understanding of ownership and object transfer develops when a child is around 5 years old. The researchers proposed several explanations for why younger children may not have a complete understanding of ownership transfer. One explanation is that since ownership is an invisible attribute, children must be able to understand that any change in ownership has happened. If they are unable to infer this change from visual or verbal cues, young children may be unable to understand that the ownership of the object has changed from the first possessor to the second possessor, resulting in first possessor bias. Another explanation proposed was that even very young children recognize that property is important, but feedback from parents and others show inconsistency in ownership rules (e.g. parents settling object disputes tend to support both the current possessor and original possessor about equally, regardless of the type of ownership transfer). As a result of this inconsistency, it may be that young children default to the first possessor bias, preventing any object transfer given their awareness of the importance of the ownership over that property.

Questions Parents May Ask

What age does my child have to be in order to participate?

The original study included children ages 2 to 5 years. However, since our goal is to share research with the public and are not collecting any data, children of any age are welcome to participate.

Where can I learn more about this research?

A copy of the original study is in the interpretation box. Dr. Peter Blake's Social Development and Learning Lab at Boston University is online at: <http://www.bu.edu/cdl/sdll/>

How did my child do?

Children all develop at different paces and not every child is the same. In this activity, we're not really testing your child. This activity is primarily used as a way to show grownups how their child thinks about ownership and object transfers. It's a way we can show really interesting research that is going on that is relevant to your child.

When will my child no longer have biases?

Having biases is common among young children. Every child develops differently and his or her biases may go away at different times.

Activities for Parents to Try at the Museum

- Go on a scavenger hunt with your child! Challenge them to find natural objects in the exhibit such as bones, shells, plants or rocks. Does your child believe that s/he has ownership over the natural objects such as a shell or a leaf because s/he found it? Or does your child assume that these natural objects cannot be owned?
- With many museum activities, children can often create things they get to take home. Does your child assume ownership over something they make? If s/he gives something s/he made to you, does your child assume that it now belongs to you, or does s/he still believe that s/he has ownership over it?
- Challenge your child to build a block tower, and ask whom the design belongs to. Does your child's take ownership over the design? Design a maze with your child. Do they think that you have joint-ownership over the ball maze design? Use a maze that somebody else built. Does your child think that they are the owner of that design, even if they simply used it?

Activities for Parents to Try at Home

- Sort different objects you have at home with your child. Have your child place objects that belong to him/her in one box, objects that don't belong to him/her in a second box, and objects that are shared with everyone in a third box. How does your child make these decisions? Ask them why they chose to put certain objects in certain boxes.
- Make up stories with dolls or stuffed animals your child may have. Begin the story with a conflict between the characters over an object. Ask your child to help you finish the story by deciding which character is the owner of the object and who gets to take it home. What strategies or explanations does s/he use to make such a decision?

Sources and Resources

Blake, Peter R., Paul L. Harris. "Children's Understanding of Ownership Transfers." *Cognitive Development* 2009: 133-45.

Appendix A - OWNER DOLLS ACTIVITY SCRIPT

In this activity, we focus on how children understand transfer of objects through receiving an object as a gift and obtaining an object through stealing.

- 1) Explain the rules to the child: *Hi! I'm going to be telling you some stories and at the end I'm going to ask you some questions about the stories. Are you ready?*
- 2) Introduce two of the child puppets to the child: *"This is my friend Sam, and this is my friend Jordan. Do you want to say hi to Sam and Jordan?"*
- 3) Present the first story and act it out with the puppets to provide a visual: *It's Jordan's birthday and Sam wants to give her a birthday present. So Sam looks around his room and decides to give his toy horse to Jordan for her birthday. Sam gives the toy to Jordan and Jordan says, "Thank you! I can't wait to take it home and play with it!"*
- 4) Put the toy horse between the two puppets and ask the child: *At the beginning of the story, Sam was holding the toy, and at the end of the story Jordan is holding the toy. Who should take the toy home? Why?*
- 5) Present the second story:
On a different day, Sam decided to bring his toy car to the park. Jordan is also playing at the park. Sam puts the toy car down to go drink some water. While Sam is drinking water, Jordan sees the car and takes the car. When Sam comes back from the water fountain, he can't find his car and says, "Oh no! My car is gone!"
- 6) Put the toy car in between the two puppets and ask the child: *At the beginning of the story Sam was holding the toy and Jordan is holding the toy at the end of the story. Who should take the toy home? Why?*

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1) Introduce two of the adult puppets to the child: *“This is Mr. Smith and Mrs. Jones. Do you want to say hi to Mr. Smith and Mrs. Jones?”*

2) Present the story:

Mrs. Jones wore her scarf to the park. Mr. Smith who is also at the park. Mrs. Jones puts her scarf on the bench next to her and goes to talk to her friends. While Mrs. Jones is talking to her friends, Mr. Smith sees the scarf and takes it. When Mrs. Jones comes back she can't find her scarf and says, “Oh no! My scarf is gone!”

3) Put the scarf between the two puppets and ask the child: *At the beginning of the story Mrs. Jones is holding the scarf and Mr. Smith is holding the scarf at the end of the story. Who should take the scarf home?*

4) Allow the child to play with the puppets and toys while you talk to the adult about the research.

Appendix B - OWNER DOLLS FIGURES AND GRAPHS

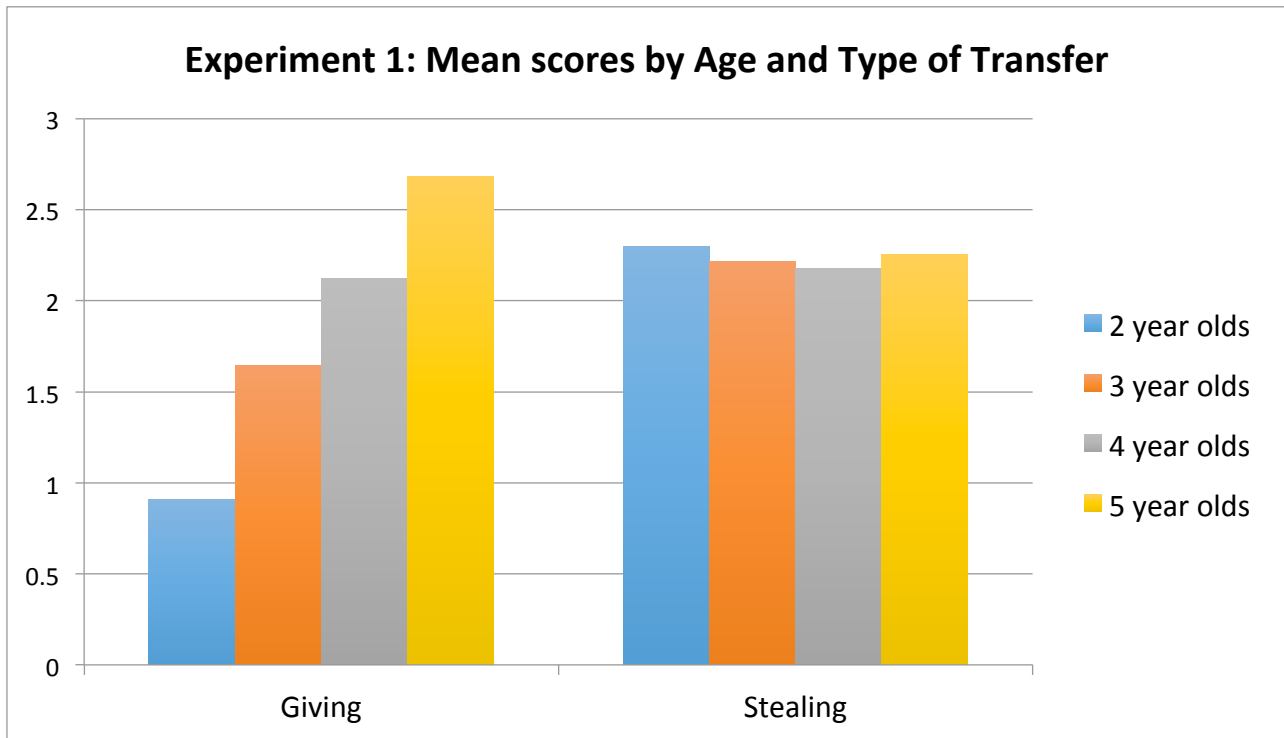


Figure 3: Children's "scores" for giving and stealing stories in Experiment 1. "Participants were given 1 point for identifying the correct owner for each question (3 total), and 0 points for identifying the incorrect owner"

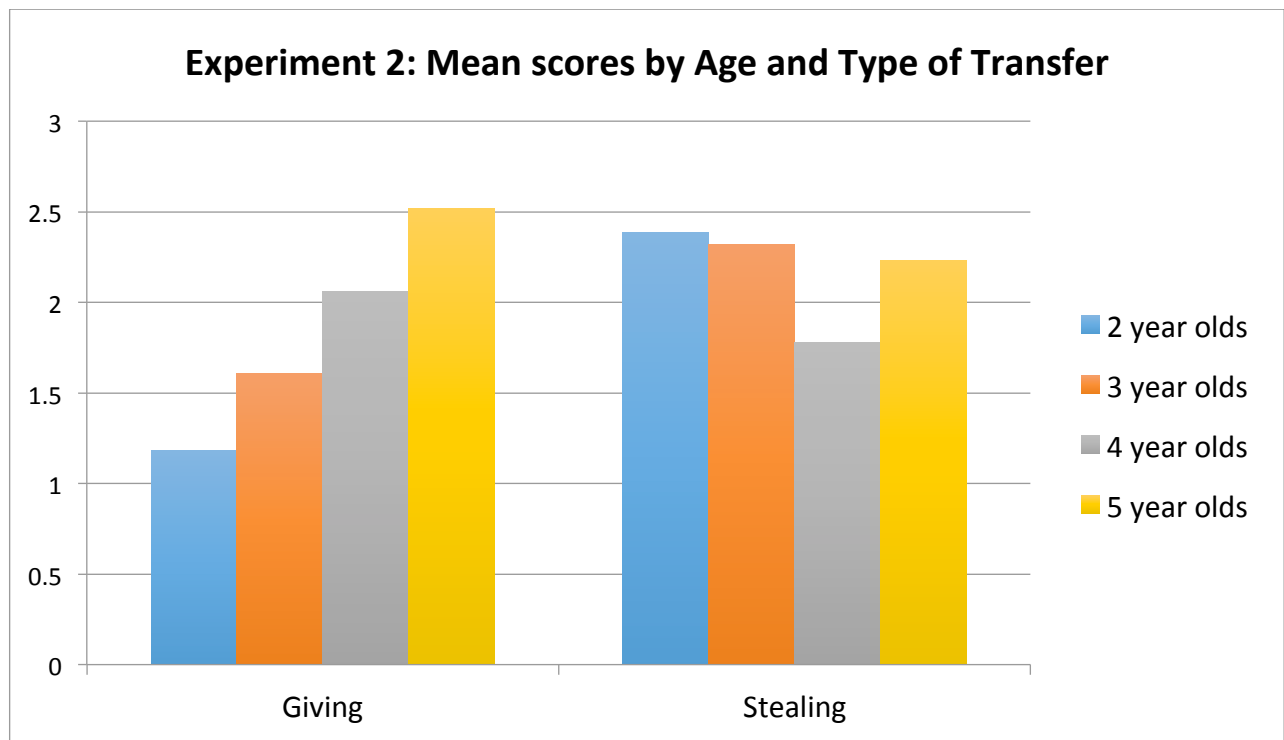


Figure 4: Children's "scores" for giving and stealing stories in Experiment 2. Participants were given 1 point for identifying the correct owner for each question (3 total), and 0 points for identifying the incorrect owner"