

Playing the Picture Finding game with the Researchers at the



Early childhood is a time when children discover many new words. Word recognition tasks are often used to determine the average age of acquisition for these words, and this data can then be applied to the study of various other cognitive topics, including generalization or inductive inference, when using words and pictures. In our previous research, we studied how children draw inferences between phonologically or conceptually similar labels (such as HOUSE-MOUSE or PUPPY-DOG). The present task will be a supplemental study of the recognition of certain words used in previous tasks. Children will be shown slides of pictures and be asked to find the picture representing the target word on each slide.

Take a look at these pictures. Can you find the house?



House

Researchers:

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Children's Analogical Transfer of Story Problems

Hearing stories is a frequent and central part of children's development. Further, children's ability to generalize the themes of those stories to real life events and situations is a powerful tool by which children learn ways to solve novel problems. Many studies have demonstrated that it is very difficult for young children to extend their knowledge to new situations on their own – i.e. using the solution in a story they hear and applying it to a novel situation – however, the goal of this study is to compare what kinds of interventions lead to children's ability to transfer their knowledge from one situation to another.

In the present study, we show children two stories with different characters and settings (surface features) but with the same solutions to the problems (deep structure). The stories are simple and non-threatening, such as getting a toy down from a shelf by stacking boxes. We then either ask children to generate an analogy to the stories, b) ask children to compare what is similar between the two stories, or c) directly highlight and explain the deep structure of the stories. We then give children a third story but instead of providing the solution, we ask them to provide the solution. The effectiveness of each of these methods in fostering analogical transfer is then assessed by how well children in each condition solve the third story problem.

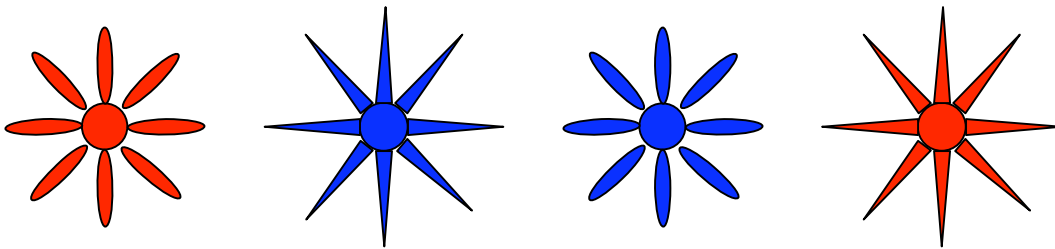
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Playing the Card Sorting Game with the Researchers

Dimensional Card Sorting Task is one of the tasks routinely used to investigate the development of attention in young children. In this task participants are presented with a set of cards depicting familiar objects that differ on two dimensions (i.e., color and shape). Children are first asked to sort cards according to one dimension (i.e., shape), and upon completing the task, they are asked to sort cards according to a different dimension (i.e., color). Despite understanding and remembering the rules, 3 year-old children persevere in their sorting by the original dimension; performance on this task does not improve until 4 or 5 years of age, suggesting that young children have limited control over deliberately switching their attention among stimulus dimensions.

This study is aimed at contributing to our understanding of this phenomenon. In particular, we will explore the possibility that perseverations will be attenuated if children first are asked to sort by a dimension that is not easily discriminated and then switch to sorting to a dimension that can be discriminated very easily. Each child may play the game several times. For example, we might first ask children to sort flowers and stars into different piles, with the shape of flowers and stars being quite similar to each other (see examples below). Then, we might ask children to sort red and blue cards in different piles, with the color being in this case a dimension that can be discriminated more easily. Our findings will contribute to the understanding of the effects of dimension discriminability on flexible attention switching in young children.



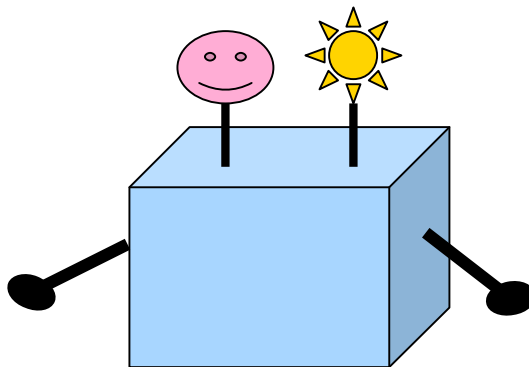
In this set of items, shape is a less discriminable dimension than color

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Playing the Pop-Up Toy Game with the Researchers

In this study we investigate causal reasoning in 4- to 5-year-old children. We present children with a toy box which has two levers; pressing these levers causes two toys to pop-up at the top of the box (see a picture below). In this game we ask children to press one lever at the same time as the experimenter presses the other lever, so that it remains ambiguous which lever activates which toy. After briefly playing with this toy together with the experimenter children are given some time to play alone. During this time they can choose to keep playing with the toy box or with a new toy. We are interested whether children will prefer to play with the old toy when the mechanics of this toy are ambiguous to the child.



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