Research Spotlight

The Picture Finding Game

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. These data can then be applied to the study of other cognitive topics, including generalization or inductive inference, when using words and pictures. Dr. Anna Fisher and graduate student Layla Unger are particularly interested in the degree to which children utilize this knowledge in various reasoning tasks. In the Picture Finding Game, children are shown black and white slides of pictures. Then, children are asked to find the picture representing the target word on each slide. For example, we might ask children to find the picture of the rose among the set below.

The Numbers Game

Kindergarten is also a time when children learn many new math skills and concepts, such as identifying numerals, counting, and comparing sets of different sizes. The purpose of the Numbers Game is to develop an age-appropriate assessment of Kindergarten students’ math skills and knowledge. During this task, participants are presented with problems like the one depicted in the example below, and the experimenter reads the instructions for how to complete the problem. Kindergarten students who take part in this assessment are only given generalized positive feedback (e.g., “You did a great job!”); they are not told whether their responses are correct or incorrect. The data collected from this study will only be used to contribute to the evaluation of math instruction materials that are being investigated in other studies being conducted this year. These data will not be used as an academic evaluation of participants in any way.

Experimenter instructions: “Please circle seven of these bunnies.”
Research Spotlight, continued …

The Reasoning Game

In this study, Dr. Anna Fisher and graduate student Karrie Godwin are investigating young children’s understanding of categories and the development of category-based reasoning. In particular, they are interested in examining the role of conceptual and perceptual information on category-based reasoning and induction in early childhood. Specifically, they are interested in the degree to which children utilize their knowledge of categories and perceptual similarity in a reasoning task where these sources of information are in conflict. They are also interested in whether labels help children make inferences. In the Reasoning Game, children are shown sets of three pictures similar to the ones presented here. For example, we might show children a lemon, a tennis ball, and a lemon slice. For half of the trials, children may be told the object labels. For the other half of the trials, no labels will be used. Children will learn that one of the objects has a particular property, and then the children must decide whether this property can be generalized to the other two objects.

The Naming Game

In a related study, Dr. Anna Fisher and graduate student Karrie Godwin are investigating young children’s understanding of categories and the development of category-based reasoning. In particular, they are interested in examining the role of conceptual and perceptual information on category-based reasoning and induction in early childhood. Specifically, they are interested in the degree to which children utilize their knowledge of categories and perceptual similarity in a reasoning task and whether familiarity with labels helps children make inductive inferences during a reasoning task. In the Naming Game, children are shown a series of pictures similar to the one presented below. Then, children are asked to identify the animal or object pictured.

Example trial: “We are going to play a game with pictures. I am going to show you a picture and I want you to tell me what the picture is called. Okay, let’s play the game. What is this called?”

Undergraduate Researchers in Training

Students in Dr. Anna Fisher’s Developmental Research Methods class are preparing their final projects for the semester. Though the research protocols are still being developed, the students are planning to study many educationally relevant early childhood tasks. For example, groups are studying whether children share more when an adult models generosity, whether children persist longer on challenging tasks when adults comment on their effort, whether children’s stated preferences are swayed by knowing what peers or older children have previously chosen, how children resolve discrepancies between a character’s words and facial expression, and what type of counting experience helps children learn to recognize numerals. Families whose children participate will receive fuller parent descriptions via the child’s backpack. Everyone can read the study descriptions on the Research Bulletin Board outside the Children’s School Office. What an interesting set of developmental psychology topics!