

# research & resources

## • WAISMAN CENTER NEWS FOR FAMILIES • UNIVERSITY OF WISCONSIN-MADISON

Spring, 2005

Dear Friends, Families and Colleagues,

We at the Waisman Center believe that it is important for families to hear from research teams not only when they are looking for participants but also after they have analyzed their data. In this issue of the Research Participation Core's newsletter, I have summarized findings from several studies completed at the Waisman Center in 2004.

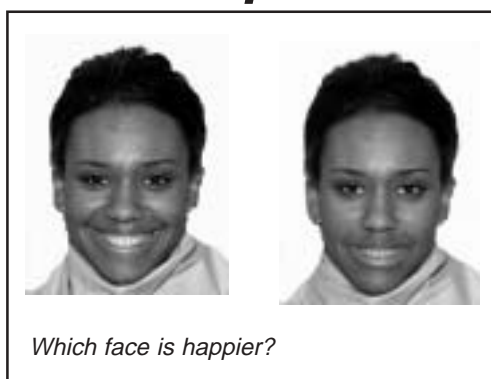
I chose to describe studies that explore the development of children's communication and cognitive processes—key areas of development that we need to understand in both children who are typically developing and children who have developmental disabilities. This summary represents just a small portion of the numerous research projects at the Center and I plan to include more in future newsletters. I have taken the liberty of editing the information so that all readers may easily understand it. If you would like to read more scholarly reports of these studies, feel free to look up the investigator on the Waisman Center's web site <http://www.waisman.wisc.edu> and you will find a link to their scientific publications. I hope that you will enjoy reading about these findings regarding speech and language, hearing, reading instruction, and the acquisition of knowledge about emotions. Thank you to all of the children and parents who participated in these studies!

*Sincerely—Susan Vial, Research Participation Core Staff Coordinator*

## ***How do Children Acquire Knowledge about Emotions?***

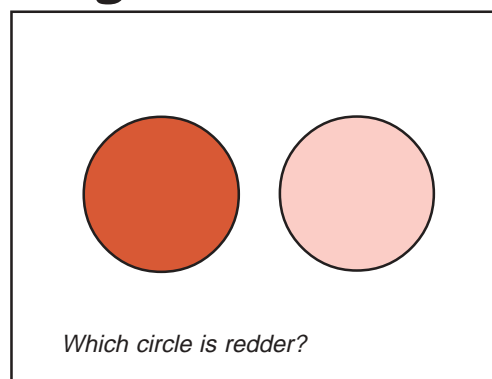
A study recently completed in the Waisman Early Childhood Program explored how children learn to use adjectives to make comparisons. Led by Waisman Center investigators Charles Kalish,

Ph.D., Professor of Educational Psychology and Seth Pollak, Ph.D., Associate Professor of



*Which face is happier?*

Face images courtesy of the MacArthur Foundation Research Network on Early Experience and Brain Development



*Which circle is redder?*

Psychology, Psychiatry and Pediatrics, the focus of the study was to determine when children first start

to understand relative levels of emotional intensity and to evaluate whether children comprehend

spatial comparisons (“bigger” or “taller”) before emotional comparisons (“happier” or “sadder”). Participants in the study were shown two pictures on a computer screen that were different in some aspect, such as size, color, or emotional intensity. The participants were then asked to choose one of the pictures, based on a relative descriptor, such as “Which face is happier?” Nine children between the ages of 2 and 3 years and 20 adults participated in this study. The results showed that at a young age, children are able to understand relative descriptions of emotional intensity. Children performed equally well in making emotional intensity judgments using different types of basic emotion words, indicating that when they understand “happier”, they also understand “sadder”, for example. Additionally, the study showed that children perform as well when making comparisons using spatial adjectives as they do when making comparisons using emotional adjectives. These findings are somewhat surprising because previous research had suggested that emotional contrasts are rare in parental speech. The study is a first step for these investigators in their exploration of children’s acquisition of emotional knowledge. They plan to continue this research, expanding the study to require more complex distinctions be made in the comparison of an increased number of stimuli.

## ***What are the Language Outcomes in “Late Talkers”?***

After 5 years and over 1,000 hours of data collection and analysis, the Early Language Learning Project has come to a close. Headed by Susan Ellis Weismer, Ph.D., Julia Evans, Ph.D., and Robin Chapman, Ph.D., the study included over 100 participants from Madison and nearby communities. The project monitored the development of language processing in typically developing children and in “late talkers,” with the goal of identifying factors that put children at risk of having continued problems in language learning. The results of the study indicate that late talkers have grammatical abilities (such as combining words into short ‘sentences’) that are underdeveloped based on the size of their vocabulary. The study identified 2 distinct groups of late talkers based on vocabulary and grammar skills: one group who caught up to the other group of children with typical language skills (“late bloomers”) and one group who continued to show delays. The longitudinal design of the project revealed that most of the late-talking toddlers had good language outcomes as kindergartners, with only 10% of the late talkers displaying language problems that led to a clinical diagnosis at 5-1/2 years of age. However, as a group, the children who had been late talkers were somewhat less skilled in language at kindergarten age than children with more typical early development profiles. The results of the study provide some assessment guidelines that may be helpful in a clinical setting to predict which toddlers with language delays are likely to have persistent language problems.

## ***What Teaching Methods Produce More Skilled Readers?***

Waisman Center investigator and University of Wisconsin-Madison Psychology professor Mark Seidenberg and colleague Michael Harm of Stanford University recently examined which methods of teaching children to read produced the most skilled and efficient readers. They designed a computer model that imitates the way in which children learn to read. Similar to the learning process in children, the researchers first helped the computer model build a spoken vocabulary by exposing it to sounds. The model was then taught to read by

learning meanings from sounds and learning meanings from spellings. The model was also taught the relationships between spellings and sounds—also called phonics—to determine if learning methods including or excluding phonics were more beneficial. The results of the study showed that when the model learned phonics in combination with another method, the learning process was much faster. Learning phonics helps to establish the connections between spelling and sound and meaning, and produces more skilled readers.

## ***New Research Project Focuses on Fragile X Syndrome***

A new longitudinal study of the language and communication difficulties of children and adolescents with fragile X syndrome is recruiting participants, both male and female, between the ages of 10 and 15 years. Participation can begin any time in 2005 and will require yearly visits to the University of Wisconsin-Madison for four years. Travel expenses, including hotel and airfare, will be covered by the project. Led by Len Abbeduto, Ph.D., professor of educational psychology, the objective of this research is to identify the biological, environmental, and psychological factors that lead to different outcomes in language and communication.

For more information or to schedule a visit, contact Dr. Len Abbeduto at—

[abbeduto@waisman.wisc.edu](mailto:abbeduto@waisman.wisc.edu) or  
608-263-1737.

You can also learn more about this project on-line at—  
<http://www.waisman.wisc.edu/adolescents.html>



## ***How do Children Locate and Distinguish Sounds?***

A research project on children's ability to identify where sounds are coming from was recently conducted by Ruth Litovsky, Ph.D., Assistant Professor of Communicative Disorders. Participants in the study were presented with one sound (the original sound) and, after a designated time had passed, a second sound (the echo sound). Adults completed the same tasks for comparison with the children. The results show that, when the sounds were presented with very little time between them, both children and adults reported hearing only one sound. When the time between the presentations of sounds increases, both sounds can be heard; however, children needed a larger delay in presentation in order to discern two sounds than adults. Additionally, the study found that as the time between sounds is increased further, participants were also able to identify where both sounds were coming from. These results indicate that identifying the locations of sounds is more difficult for children than determining whether there are one or two sounds. The results of the study have important implications for children's ability to learn in classroom settings and can help determine how to create an optimal learning environment.

## ***International Adoption Project Seeks Participants***

Seth Pollak, Ph.D., Associate Professor of Psychology, Psychiatry, and Pediatrics leads the Wisconsin International Adoption Project (WIAP). The project is investigating the successes, challenges, and needs of children who have spent some early part of their lives in institutional, orphanage, or foster care settings. The research conducted by WIAP will provide answers and aid to families, community agencies, adoption professionals, educators, and medical professionals to help children and families reach their full potential. The WIAP maintains a confidential registry of families who are interested in

being contacted about research opportunities. When you register, WIAP will send a questionnaire for you to complete about your child's developmental history and, although the project will contact you when a research opportunity arises, you are never obligated to participate.

**Contact:** For more information or to join the WIAP registry, contact the WIAP research coordinator via email at

[ChildEmotion@waisman.wisc.edu](mailto:ChildEmotion@waisman.wisc.edu) or by phone at (608) 262-5148.

You can also learn more by visiting <http://psych.wisc.edu/childemotion/>

## Films in the Field

Saturday, August 13, 2005

8:00 p.m. at the West Campus Recreational Fields  
adjacent to the Waisman Center

Mark your calendars and plan to attend this special event! A family-oriented movie will be projected onto a 20-foot by 40-foot inflatable screen. Bring a blanket and enjoy this FREE outdoor movie under the stars! Film T.B.A. This 2nd annual event is sponsored by the Friends of the Waisman Center. For additional information, call Teresa at (608) 263-5837 weekdays or [palumbo@waisman.wisc.edu](mailto:palumbo@waisman.wisc.edu)

## research & resources

• WAISMAN CENTER NEWS FOR FAMILIES •  
UNIVERSITY OF WISCONSIN-MADISON

Published by the Research Participation Core. If you would like your name added to or removed from our mailing list, please contact us.

**Len Abbeduto**, Ph.D.  
Faculty Core Director

**Seth Pollak**, Ph.D.  
Faculty Core Co-Director

**Susan Vial**, M.S.W.  
Staff Coordinator, Newsletter Editor  
608/263-5192

**Shannon Cole**, Contributing Writer

---

E-mail: [rpc@waisman.wisc.edu](mailto:rpc@waisman.wisc.edu)

Waisman Center's web site:  
<http://www.waisman.wisc.edu>

Research Participation Core  
Waisman Center–Room 465  
University of Wisconsin-Madison  
Madison, WI 53705-2280