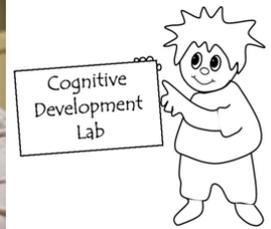


Cognitive Development Lab

Newsletter, Vol. 3



Greetings from all of us at the lab!

It has been a busy year in the Cognitive Development Lab. We have seen many of you recently, but for others it might have been some time since your son or daughter participated in one of our studies. We hope you are doing well. This newsletter is to update you on what has been happening in the lab and share the results of our recent studies. You will also find list of current studies we are running if you are interested in becoming involved again.

Last year we welcomed a new student to our lab, Alanna. She is currently preparing to run a study for her master's thesis. Sarah completed her master's degree and is beginning her PhD this fall. We have also had to say goodbye to many students recently. Tracy finished her residency at the London Clinical Psychology Consortium and is now working for the Dufferin Peel Catholic District School Board. Anisha successfully defended her

dissertation and just began her residency at BC Children's Hospital. Two of our students, Randall and Vanessa, have graduated and are working as clinical psychologists in Vancouver and London.

We have continued to be involved in the community and you may have seen us at the St. Jacobs Market or at a "Kids in the Kitchen" event at the Kitchener Market. We have also continued our "ask a researcher" project, where parents submit questions about children's communication and we provide an answer based on current research. We have included one question in our newsletter, but feel free to visit our website to see all the topics we have covered. You can also submit your own question via our website.



Special points of interest:

- ☺ Find out about upcoming research!
- ☺ Find out the results of the study your child participated in
- ☺ Learn about "Ask a Researcher!"

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Interested in becoming involved again?

We are always looking for families to volunteer to participate, and would be thrilled to have you visit our lab again! Here are some studies that are being run right now:

Current Studies

Nonverbal Communication Study: This study examines what cues children pay attention to when deciding who to trust. We are looking for children ages 7 and 8 to participate in this 45 minute study..

Sharing Behaviours Study: This study examines children's sharing behaviour depending on the social context (competitive vs. cooperative). We are looking for children ages 7 and 8 to participate in this 45 minute study.

Upcoming Studies

This winter, Alanna Valcke, will be visiting local schools and testing in the lab to study 3.5 to 5.5 year old's sharing behaviours. She is interested in how children share with others and whether this depends on the nature of the context (i.e. cooperative vs. competitive), communication with a social partner, and/or children's thinking and perspective taking skills.

Ask a Researcher!

Our "Ask a Researcher" project is where parents can submit general questions about children's communication. A member of our lab will review current research and provide an answer to your question.

You can visit <https://uwaterloo.ca/cognitive-development-lab/ask-researcher> to submit your question or drop it off in our question box during your next visit. Here is an example:

Question: I like to praise my child to let them know they've done a good job. Does it matter how I praise them?

Researcher Anisha's Answer: After a job well done, strive to praise children for the effort that they made, rather than attributing their success to who they are. For example, after they achieve a high score on a Math test, praise them with "Wow! I appreciate how you studied hard for that test", or, "It's great how you tried all the questions- even the ones that were hard", rather than, "you're such a good student", or, "you're so smart." Research shows that attributing success to children's ability paradoxically leads them to avoid challenges and persist less. Consider this example: if a child believes that her success is due to her intelligence, she might interpret difficulty as a sign that she might not be as smart as she was told. In order to preserve her idea of her intelligence, she might avoid situations which have a risk of failure. In contrast, a child who believes that her success is due to her hard effort would likely persist and work even harder when she comes across challenges.

Mueller, C., & Dweck, C. (1998). Praise for intelligence can undermine children's motivation and performance. *Personality and Social Psychology*, 75, 33-52.



Our Studies

How do ADHD traits impact the interpersonal behavior of children and parents?

Previous work in our lab has examined the communication skills of individuals with varying degrees of ADHD traits. In this study, we were interested in finding out more about the interpersonal dynamics between parents and their children in relation to ADHD traits. Children aged 8-12 years-old engaged in a cooperative problem-solving task with their mothers as well as completing a number of cognitive tasks. The following results emerged: First, in dyads

where the child had elevated ADHD traits, there was less reciprocity in the interpersonal behavior. That is, friendly acts towards one another were not mirrored in the same way that they were for dyads involving children with lower levels of ADHD. Second, when we used a computer program to calculate the paralinguistic styles of the mothers/children (i.e., pitch and volume level/variability) we found that when a child had elevated ADHD traits both

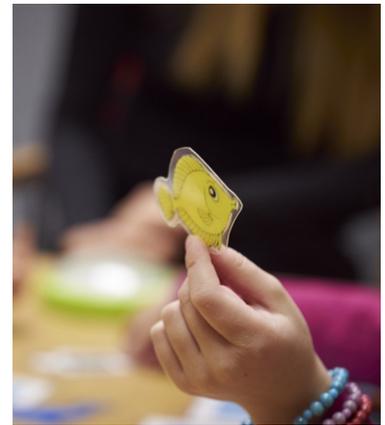
the child and the mother used a more exaggerated style of speaking (i.e., elevated and more variable pitch and volume). Children with more difficulty inhibiting their reactions on a cognitive task showed more exaggerated paralinguistic styles. Results have been published in the *Journal of Experimental Psychopathology* and *Frontiers* - and help us understand the ways in which behavioural traits affect various aspects of social and communicative acts.

How does feedback help children become better communicators?

Young children often fail to provide enough information so that their listener's understand them. In this study, for Sarah's master's thesis, we looked at 4- to 6-year olds' ability to fix their messages following feedback from an adult indicating they have been misunderstood. Participants in the study were asked to describe a series of pictures in detail to an experimenter and received feedback when their descriptions were not detailed enough. The results showed that providing the children with detailed feedback, which included why

their statement was misunderstood (e.g. "There were two red clowns and I don't know which one you mean"), helped them to repair their message compared to when they were provided with vague feedback (e.g. "I don't know which one you mean."). We also found that children's ability to think flexibly about a problem (called "cognitive flexibility") was related to their ability to clarify their messages. This study allows us to know what parents can do to facilitate their children's communication as well as the types of thinking skills children

benefit from having when faced with communicative tasks.



How do ADHD traits impact adolescents' perspective-taking skills?

For this study we looked at 15- to 19-year-olds' ability to understand the perspective of another person during communication, a skill known as communicative perspective-taking. We were interested in seeing how ADHD symptoms and adolescents' thinking skills affect their ability to 'read' the communicative intentions of others. Highlighting the importance of communicative perspective-taking for everyday life, results showed

that adolescents with worse perspective-taking skills rated themselves as having worse relationships with their peers. We also found that adolescents who have higher levels of ADHD traits have more difficulty understanding other people's perspectives and that this difficulty is, in part, caused by a weakness in a thinking skill called "working memory." Working memory involves the ability to hold information in one's head and work with this infor-

mation. These findings are important because they show us some specific area of difficulty that interfere with adolescents' communication skills. These could eventually be good areas to target in treatments meant to improve social skills. This work was presented at the Canadian Psychological Association 2015 meeting and is currently being reviewed for publication in a scientific journal.

Can we develop a questionnaire which assesses preschoolers' executive functioning?

Executive functioning (EF) refers to higher order processes that aid in the monitoring and control of thought and action and facilitate goal-directed behavior. These skills have been found to be crucial for children's social functioning, behaviour, and academic skills. We

were interested in designing a new assessment tool that would provide a snapshot of children's executive functioning skills without having to conduct a lengthy battery of cognitive tasks. Thus, we designed a caregiver report measure that asked parents to report on the behaviour

demonstrated by their preschool-age child that would be indicative of executive functions. We found that parents' report of their child's behavior was related to the performance of their child on a series of executive tasks. This measure is published in the journal *Psychological Assessment*.

How does social experience relate to children's feelings of social anxiety?

Retrospective studies suggest that those individuals with higher levels of social anxiety report more experiences of teasing as a child. In order to expand this work, we sought to determine whether there was a similar relation when children report on their own experiences. Children ages 8- to 12 completed questionnaires about their positive/negative interactions with

peers, levels of social anxiety, and concerns about revealing traits they see as being flawed to others. We found that children who had experienced more frequent relational teasing (i.e. verbal aggression) also reported more social anxiety. In addition, results suggest that children who are teased develop increased concerns about portraying themselves negatively, which in turn pre-

dicts higher social anxious feelings. This research highlights the impact of social context on a child's sense of self, which in turn leads to feelings of anxiety. Such findings are useful for developing treatments aimed at alleviating children's social anxiety. This work was presented at the Canadian Psychological Association meeting in 2016.

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Visit our
website!

<https://uwaterloo.ca/cognitive-development-lab>



We are a group of researchers in the Psychology department at the University of Waterloo who are interested in finding out more about how children's thinking and communication skills develop. We conduct studies with preschool and school-age children in order to better understand how children learn to communicate and interact effectively with those around them. Our lab is a family-friendly environment where parents and children alike can feel comfortable, and all our studies are designed like games so children have fun participating! We hope to see you and your family again soon!
