

# Parent Newsletter



At Reflection Sciences, we seek to be a clearinghouse of information about executive function, summarizing the latest research and providing useful tips for caregivers. We are pleased to bring you the inaugural issue of our Parent Newsletter!

## Measuring What Matters:

Reflection Sciences, Inc. was featured on the front cover of the University of Minnesota's Connect Magazine! The article highlights executive function's growing importance and the story of how Reflection Sciences came to be. To read the full story, visit <http://connect.cehd.umn.edu/measuring-what-matters/>



## The “Batman” Effect:

Playing dress-up could be more important for your child than you might think. Our Co-founder and CEO Dr. Stephanie Carlson explains how pretend role play and encouraging a child to pretend to be someone more competent than themselves, like Batman, can improve executive function skills. This phenomenon, called *psychological distancing*, allows children to take a broader perspective on the situation and reflect on their own thoughts, actions, and emotions. They are then able to make a *choice* about how to react, opposed to reacting impulsively. To see the video, visit our youtube channel. <https://youtu.be/CKAxGIWrByE>



## When Less Is More:

Children are known to be impatient, especially when tempted by a special treat or toy. In one experiment by Dr. Stephanie Carlson and her students, children were given two options, a bowl with a **large** amount of treats (such as M&Ms) and one with a **small** amount. They were told that whichever option they pick, those treats will be given away to a puppet and they will get the *other* option. Children need to infer that in order to get the larger amount of treats for themselves, they have to choose the smaller amount of treats. That's why we call it the "Less is More" task. Typically, 3-year-olds in this experiment, even though they want *more* treats, will continually point to the larger option, thus receiving fewer treats. Four-year-olds, on the other hand, will typically make the mistake of pointing to the larger option in the first trial, but learn, shift their perspective, and correct their decision-making in the remaining trials, thus achieving their goal and ending up with the most treats.

*So how can we improve the performance of the 3-year-olds?*

Dr. Carlson decided to take advantage of something children do naturally: pretend. By presenting children with a *symbol* for each option, for example an elephant for the larger treat and a mouse for the smaller treat, 3-year-olds were able to distance themselves from the situation and choose the mouse, which they know stands for the smaller option, thus succeeding in receiving the larger amount of treats.

*How can I help my child?*

The idea behind this experiment is to demonstrate how symbols can help children to make sense of problems they face. By appealing to a child's affinity for pretend play, we can help them to slow down, take a broader perspective on the situation, and make a less impulsive decision.

## Managing Stress Through Mindfulness:

Long periods of stress in children have been shown to cause damage to neural tissue, especially the areas of the brain that allow for executive functioning. To combat stress, a team of researchers led by our Co-founder Dr. Phil Zelazo randomly selected preschool children to receive mindfulness training at the University of Minnesota's Shirley G. Moore Lab School. These children were later found to have better attention and perspective taking compared to their peers, possibly because they had learned new ways of coping with stress. Dr. Zelazo and Dr. Carlson have recently expanded this promising line of research to include low-income children attending KIPP schools in Houston, TX and Washington DC. To see the video, visit our YouTube page. <https://youtu.be/S3B-699fUw0>



## Father-Figure Support and EF:

Most of the research done on parenting and EF has tended to focus only on the mother-child relationship, excluding the male caregiver. In a study of father-figure support on a child's wellbeing, Reflection Sciences Trainer and PhD student Alyssa Meuwissen found that father-figures in the home provide children with higher energy, more unpredictable play, which might allow children to practice self-regulation. In addition, children who interact with multiple parents and caregivers are exposed to a wider variety of parenting styles, which requires adapting to different sets of rules, a key skill of executive function. *High quality* father caregiving was related to lower levels of behavior problems in school, higher IQ, and higher math and reading scores in children. To see the full article, go to <http://bit.ly/1VTZBOx>