

Brain Development, Executive Function and Self-Regulation

Toddlers perceive the world and engage with it differently than adults do because their brains are still developing. This impacts both how they respond to us and how we can best support them.

When you are helping them learn limits remember how interested infants and toddlers are in cause and effect. They are exploring causal relationships in order to better understand their world. Unfortunately, if you demonstrate that there is a causal relationship between the wall outlet and an energetic "No!" from you, they will smile gleefully and practice touching the outlet to illicit your "No". When you need to limit a behavior, go to your child, get down on her level, say her name, touch her gently, and give a simple direction.

You might say, "Be safe, you may touch your mirror on this part of the wall." Then, gently guide the child to the new place for touching. It is important to set limits but setting limits does not mean you have to depend on the word "No". Remember, to be as firm as necessary and as gentle as possible. (Darla Miller Phd.)

Babies and toddlers brains are structured quite differently from ours. On the one hand they have an incredible number of neurons that act like a sponge absorbing information from all directions. At the same time they are just beginning to develop their prefrontal cortexes; the part of the brain that makes it possible to focus on one thing and ignore everything else. Developmental psychologist, Alison Gopnik explains that this is an ideal format for taking in their brand new world. However, it doesn't always feel ideal to us when we want them to get dressed, eat at least a bite or two, or to wait just one more minute.

The undeveloped prefrontal cortex is also the part of the brain they will depend on to inhibit inappropriate behavior. As infants and toddlers they have almost no ability to inhibit. That is why positive child guidance is such a great tool for helping them to learn our expectations. They are all about doing and if we can reframe our messages into what we want them to do next, they are much more likely to be able to respond.

Much of what toddlers are learning is about how to manage themselves- to self regulate. They have very limited capacity to manage their emotions and their impulses. They also have difficulty with flexibility. This means the same toddler that is distracted by the speck of dust near his sneakers and the music playing in the other room is also unable to let go of his desire to put spoons in the dishwasher.

Although it may seem counterintuitive, research suggests that children learn to self-regulate through responsive caregiving. Sometimes adults are afraid to be responsive because it sounds like giving in or spoiling. The following scenario may illuminate what is meant by responsive caregiving:

Maggie is two years old and has asked her mother for the candy bar that is cleverly placed on the shelf at her eye level in the grocery store. Beth, her mother, has chosen all of the food she wants for her family, and tells Maggie, “No, Maggie, we have bananas you can eat once we are in the car.” Even though Maggie loves bananas, she is unable to manage her feelings about not getting the candy bar she wants right away and she throws herself down on the floor of the aisle, crying loudly. Beth crouches down next to Maggie and calmly acknowledges how disappointing it must feel to be unable to have the candy bar. She offers Maggie a hug to help her calm down. Maggie continues crying in her mother’s arms while Beth finishes her grocery transaction. Once Maggie and Beth are in the car, Beth puts on soothing music and offers Maggie the banana again.

Sometimes parents imagine that being responsive means always saying yes or taking whatever action is necessary to stop the upset. What makes an interaction responsive is how you acknowledge and support your child as she deals with feelings, impulses or situations that are challenging. Our willingness to support infants and toddlers by soothing, distracting, and remaining calm in the face of their inner (and outer) turmoil, will help them develop skills to do it for themselves.

Additional Resources

Books:

1. How Toddlers Thrive: What Parents Can Do Today for Children Ages 2-5 to Plant the Seeds of Lifelong Success [Tovah P Klein] Dr. Klein does a wonderful job connecting parenting skills and current science on executive function.
2. Mind in the Making: The Seven Essential Life Skills Every Child Needs [Ellen Galinsky] This book includes research from developmental psychologists all over the world and a group of skills that align well with that research.
3. Positive Child Guidance, [Darla Ferris Miller], Darla Miller is one of my mentors. You can find older editions of her book second hand for a reasonable price.

On the Web:

1. Alison Gopnik suggests that their brains are designed differently than ours in order to maximize learning. Her TED talk is worth a look:

http://www.ted.com/talks/alison_gopnik_what_do_babies_think.html

2. Adele Diamond is a leading expert on executive function and her presentation defines executive function and its significance for children’s learning. She also correlates Montessori education to a positive impact on developing executive function at the following website:

<http://www.youtube.com/watch?v=qgyUPH3a2Ss>

