



## Resource Article

*Inside this edition  
"Helping Families Understand  
and Promote Their Child's  
Self-Regulation"*

Self-regulation emerges in infancy, develops over time, shaping our ability to interact with others and learn about our environment. What starts as a gaze grows into focused attention and helps us understand and problem-solve ordinary happenings and engage in school.

How early does this process start? And does early attention correlate with later executive functioning such as working memory, inhibitory control and cognitive flexibility?

Cuevas and Bell set out to examine infant information processing and its relationship to the emergence of executive functioning (EF) in early childhood. Their hypothesis: infant attention is a strong indicator of infant information processing speed; infants spending shorter periods of time looking at something, take in more information, and as a result are likely to continue to processing information more effectively throughout early childhood. The researchers reviewed four important research findings: 1) short looker (SL) infants who look briefly are

more efficient at processing information than those infants who look for longer times, 2) SL infants code information more globally than infants who look longer (LL) and take in more local input, 3) LL infants are likely delayed in their ability to disengage and shift visual focus, and 4) infants with SL have better visual recognition memory than those with LL.

Their longitudinal study included 201 infants who participated at 5 months, 152 participated at 2 years, 134 at 3 years, and 117 at 4 years. Most parents were high school graduates (99% of mothers, 98.4% of fathers), some had a bachelor's degree (44.7% and 32.8%, respectively). The average maternal age was 29.7, paternal age was 32.6.

Premised on the notion of infant attention, the researchers first examined attention at age 5 months. This was done using a puppet. Infants sat on their mother's laps until the infant looked at the puppet 4 times, separated by at least 3 seconds of looking away. A video camera placed

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behind the puppeteer documented the experience; it was then coded by a research assistant. The infants were coded as either short lookers (SL) or long lookers (LL). The remaining 6 tasks examined executive functioning. These age appropriate tasks will be mentioned by name and described only briefly (please refer to the article for further description). At 24 months additional tasks were introduced, including the A-not-B looking procedure (a toy hidden under a cup, another cup is introduced, child then asked, "Where's the toy?") and the 'Tongue Task' (toddler asked to hold a goldfish cracker on tongue without eating it at 10, 20 and 30 second intervals). At 36 months the Day-Night task was administered. This involved instructing children to say, "Day" when shown a picture of a 'Moon' and to say, "Night" when shown a picture of a sun. At 36 and 48 months the Simon Says task followed the Bear/Dragon procedure. Children were instructed to do what the nice horse (pig for the 48 months olds) "tells us" and not to do what the mean cow (bull for the 48 months olds) "tells us". Also given at both 36 and 48 months was the Dimensional Change Card Sort, where children are instructed to sort 6 cards based on one of two dimensions (color or shape). Additionally, at 48 months a modified version of a subtest of the Developmental Neuropsychological Assessment (NEPSY) was administered. Children were asked to point to

items that matched the target item (i.e., bears) on a page containing both distractors and targets.

Language testing was also administered. Verbal ability was measured using the MacArthur-Bates Communicative Development Inventory (MCDI: 24 months) "Words and Sentences" form. The Peabody Picture Vocabulary Test, 3rd edition (PPVT: 36 and 48 months) was used for receptive and verbal comprehension. Percentile scores were obtained from these two measures.

The resulting findings from the researchers' examination confirmed their hypothesis that infants with SL correlated with higher EF in early childhood when compared to children with LL children. It is interesting to learn that that by 5 months of age, attention style is already related to EF. In addition to learning more about infant self-regulation during the first year, this information could be useful to screen for possibility EF deficits later on as the infant into toddler and preschool years. This is also useful for early intervention providers working with families and helping them observe and understand their child's actions and interactions while finding natural opportunities to help their child grow and learn.

Cueves, K. & Bell, M. A. (2014). Infant Attention and Early Childhood Executive Function. *Child Development*, 85(2), p 397-404. Accessed from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3766399/>

# What do the data say?



## Why is self-regulation important?

There is growing evidence that self-regulation skills are linked to improved learning and behavior. Rubin, Coplan, Nelson, Cheah, and Lagace-Sequin (1999) associated early self-regulation abilities with capacity to follow instructions, focus attention, and cooperate with requests. Blair and Diamond (2008) found that early self-regulation predicted positive adjustment to school. Mustich (cited in Walker 2013) noted that self-regulation is needed for children to become *thoughtful, patient people*, which is not only important in school, but important in life. When considering self-regulation skills, it is perhaps clear to see why these abilities are associated with successful participation in school and beyond.

Children who are able to regulate their behaviors, thoughts, and emotions are capable of stopping and starting behaviors. They are able to monitor their own actions and reactions and calm down and rouse up in response to different interactions and circumstances. They are able to follow directions, focus their attention on tasks, and cooperate with peers and adults. They are able to participate in turn taking and restrain an impulse to grab, push, bite, or use other impulsive behaviors to get what they want. They are able to persist when needed and tune out distracting stimuli when it interferes. They are able to overcome small stresses and cope with small challenges. Of course, all of these abilities take time to develop.

Self-regulation is multifaceted and it develops gradually and gains sophistication from reflective regulation in infancy (e.g., self-soothing by thumb sucking, gaze aversion), to voluntary control in toddlers (e.g., complying with simple adult directions or simple rules), and growing into active intentional control (e.g., anticipating the best response to different circumstances such as waiting a turn on the swings rather than pushing a peer) requiring less and less adult reminders and prompting throughout the early childhood years (Kopp, 1989).

The foundations of self-regulation begin early in a child's life. Accordingly, parents and caregivers of young children are naturally suited to present children opportunities for learning and enhancing self-regulation abilities. Self-regulation is not a set of skills taught like items on a checklist, but self-regulation can be intentionally facilitated by the people in children's lives. Self-regulation is learned through supportive interactions with adults and peers within the context of day to day actions and interactions. And teaching self-regulation involves being responsive to children's needs, modeling self-reflection, and scaffolding children's self-regulation by gradually reducing direct support as children demonstrate new skills (Walker, 2016). Early intervention providers are also in a unique position to help families recognize, understand, and promote self-regulation development.

Blair, C. & Diamond, A. (2008). Biological processes in prevention and intervention: The promotion of self-regulation as a means of preventing school failure. *Development and Psychopathology*, 20, 899-911.

Kopp, C.B. (1982). Antecedents of self-regulation: A developmental perspective. *Developmental Psychology*, 18, 199-214.

Rubin, K.H., Coplan, R.J., Nelson, L.J., Cheah, C.S. & Lagace-Sequin, D.G. (1999). Peer relationships in childhood. In M.H. Bornstein & M.E. Lamb (Eds.). *Developmental Psychology* (4th Ed.) (451-501). Mahwah, N.J. Erlbaum.

Walker, K. (2016). Helping infants and toddlers learn self-regulation. *Texas Child Care Quarterly*, 40(3).



# Consultation Corner

From February through July 2018 we are excited to have **Claire Lerner and Julia Yeary** as our Consultation Corner experts.

During this series Claire and Julia will address a variety of questions aimed at *Helping Families Understand and Promote Their Child's Self-Regulation*



**Claire Lerner, LCSW-C** is a licensed clinical social worker and child development specialist.

She served as the Director of Parenting Resources at ZERO TO THREE for more than 18 years, where she oversaw the development of all parenting educational content. In addition, Claire has directed several professional development projects designed to build strong, trusting, collaborative relationships with families of young children. Claire currently serves as the Senior Parenting Advisor at ZERO TO THREE to enable her to spend more time working directly with families.

Claire is the author of numerous parenting publications, curricula and articles in addition to a podcast and video series for parents and professionals. Claire writes a column for PBSparents.org and has also written columns for Parenting: The Early Years and American Baby Magazines. She is frequently quoted in other Parenting publications and has been a source on early childhood development for NPR and numerous national daily newspapers such as The New York Times, Wall Street Journal, USA Today, Los Angeles Times, the Boston Globe and the London Times.

Claire has also been a practicing clinician for over 30 years, partnering with parents to understand the behavior and development of their young children. In addition, she provides consultation and training to local preschools and pediatric residents.

Claire has also participated on numerous national advisory panels and task forces related to early child development including the National Parenting Education Network and the American Academy of Pediatrics' Committee on Early Childhood Development.

Claire received a B.A. with High Distinction, in Psychology from the University of Michigan, Ann Arbor and a MSW from New York University Graduate School of Social Work. She also received a Certificate in Infant Mental Health from Wayne State University.

## Consultation Corner (continued)



**Julia Yeary, ACSW, LCSW, IMH-E®** is the Director of Military Family Projects for ZERO TO THREE.

In this role, she works to establish stronger support for families and their very young children experiencing stress and trauma. Julia provides training and consultation for communities throughout the country, and has facilitated numerous webinars and distal trainings for multi-disciplinary professionals.

She also works extensively to help professionals in supporting military-connected parents as they deal with the multiple anticipated stressors associated with military life. Julia has extensive history working with military families, serving as the Director for New Parent Support Program and as a home visitor at Camp Pendleton, California with Marine Corps. She also worked in Family Advocacy and Family Readiness. Julia has

authored several articles including “When a Parent is Away: Promoting Strong Parent-Child Connections During Parental Absence” (ZERO TO THREE Journal, April 2012), the e-book, *A Professional’s Guide to Creating Activities for Strengthening Parent-Child Connections*, and co-authored the psycho-educational parenting curriculum for Veterans, *Baby Brigade*. She served as the project manager in the development of the mobile app for military-connected families, *Babies on the Homefront* ([www.babiesonthehomefront.org](http://www.babiesonthehomefront.org)).

Julia received her Masters in Social Work in 1980 from the University of Hawaii. She is a graduate fellow of the Infant, Early Childhood, and Family Mental Health Capstone Certificate Program, University of Wisconsin, and roistered in Trauma-Informed Child-Parent Psychotherapy.

Julia Yeary was born and raised in a military family. Her father retired after 30 years in the Navy, having served in WWII, Korea and Viet Nam. Julia is married to a Marine retired after 30 years of active service. They reside in Madison, WI. Her volunteer work includes serving as a Representative for the National Military Family Association since 2004.

Check out the ZERO TO THREE website for useful resources from our consultation corner experts and others

[www.zerotothree.org](http://www.zerotothree.org)



## On the WWW

The Center on the Developing Child Harvard University produced a short almost four minute video titled InBrief: The Science of Child Development.

This video presented by Jack Shonkoff, M.D. addresses basic concepts of child development, brain research, and the critical importance of relationships and social emotional development.

Dr. Shonkoff is an editor of the groundbreaking book From Neurons to Neighborhoods, which is also a valuable resource.

This short video along with several others on child development is available online at:

**[www.developingchild.harvard.edu](http://www.developingchild.harvard.edu)**

The direct link to the Science of Child Development video is:



## Continuing Education for KIT Readers

The Comprehensive System of Personnel Development (CSPD) is offering a continuing education opportunity for KIT readers.

In line with the focus on **Helping Families Understand and Promote Their Child's Self-Regulation**, readers are invited to receive continuing education contact hours for reading the monthly KIT publications (February through June and completing a multiple-choice exam about the content covered in these KITs.

KIT readers will receive the exam for this series in July 2018. There is no need to register for the CEUs.

Rather, if you are interested, complete the

exam online at [www.edis.army.mil](http://www.edis.army.mil)

Upon successful completion of the exam, you will receive a certificate of non-discipline specific continuing education contact hours.

KIT Newsletters  
are available  
online at  
[www.edis.army.mil](http://www.edis.army.mil)

*Thank you for your continued interest in the KIT.*

