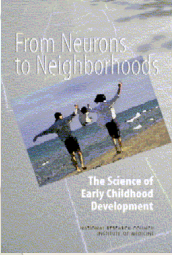


## Self-Regulation



**"The growth of self-regulation is a cornerstone of early childhood development that cuts across all domains of behavior."**

*From Neurons to Neighborhoods: The Science of Early Childhood Development*

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2.0 Self-Regulation	
At around 48 months of age	At around 60 months of age
2.1 Need adult guidance in managing their attention, feelings, and impulses and show some effort at self-control.	2.1 Regulate their attention, thoughts, feelings, and impulses more consistently, although adult guidance is sometimes necessary.
<i>Children follow simple rules and routines, seek to cooperate, manage classroom transitions, and make efforts at self-control (such as self-soothing and waiting) with adult guidance. Children also easily lose control of their attention, feelings, and behavior.</i>	<i>Children anticipate routines, cooperate with fewer reminders, can focus attention on the task at hand, and manage transitions. They are more capable of emotional and behavioral self-regulation but sometimes require adult guidance.</i>

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### Self-regulation consists of . . .

- **Inhibition:** the ability to resist a strong inclination to do one thing and instead do what is most appropriate or needed
- **Working memory:** holding information in mind while mentally working with it (such as remembering a goal while acting on it)
- **Cognitive flexibility:** being able to switch perspective, attention, or mental focus (such as taking into account another's perspective)
- Together, these are also called **executive functions**, and they affect social, emotional, and cognitive ability
- These skills develop over an **extended time** - from infancy through early adulthood
- These skills are based on the maturing brain

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Development of self-regulation . . .

At child care, what must you do to go outside when it's raining . . . ?

- Finish your activity
- Put things away
- Go to your cubby and put on your rain gear
  - Take off your shoes
    - Sit down on floor
    - Pull off shoes and put on boots
    - Stand up
  - Put on hat and coat
- Join other children and teacher at the door

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Dorsolateral prefrontal cortex (DLPFC)

Dorsolateral prefrontal cortex

- Contributes to planning and executing event sequences
- Long developmental timetable: matures throughout childhood and adolescence

from Brain Basics for Early Childhood Educators by Megan R. Gunnar, Institute of Child Development, University of Minnesota.

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Development of self-regulation . . .

Say the color of these words in columns as fast as you can:

Green	Yellow	Blue	Green
Red	Blue	Yellow	Yellow
Blue	Yellow	Red	Green

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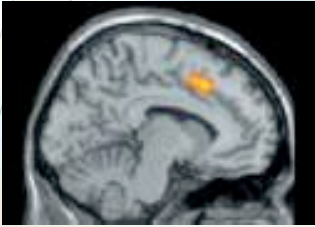
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**Anterior cingulate**

- Helps people inhibit a dominant response in favor of a secondary, subdominant response (inhibition)
- Has an extended developmental timetable: roughly 12 months to 25 years!

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**More on self-regulation . . .**

- Stress impairs self-regulation
- Young children who are most economically disadvantaged also show greatest problems with self-regulation
- Self-regulatory problems are most often identified by kindergarten teachers as what children lack when they are not ready for school
- Cultural expectations significantly influence the growth of self-regulation in children

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**How do we help young children develop self-regulation?**

- Developmentally appropriate expectations (are young children *capable* of the self-control we expect of them?)
- Tell children what *to do* - not what *not* to do
- Plan for transitions
- Help break up complex behaviors into smaller parts, and structure their memory for what to do
- Help children use words to regulate their actions and thinking
- Model emotional self-control, attentional focus, consideration for others
- Create a predictable but flexible daily schedule that encourages self-control by balancing active with quiet periods, individual with group activities, and provides opportunities for a "time-out"

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