JOHNS HOPKINS
BLOOMBERG
SCHOOL of PUBLIC HEALTH

Section B

Self-Regulation, Attention, and Problem Solving

Qualifier: Cultures Vary

- Vary by parental expectations, disciplinary practices, religious and spiritual values, child-rearing goals

- Haitian:
  - Vulnerability of infancy leads to co-sleeping and around-the-clock physical contact

- Japanese:
  - Infants are separate beings to be drawn into codependecy through continuous physical contact

- Western world:
  - Teach infants independence through increasing self-reliance—sleep alone, follow schedule

Qualifier: Cultures Vary

- Africa and Southeast Asia:
  - Instant parental soothing before the baby cries teaches self-regulation later in life; assumes parent creates the non-stressed state (Papousek, 2000)

- United States:
  - Training self-soothing teaches independent problem solving
  - Baby will work it out and learn to seek the non-stressed state

Toddler Self-Regulation Effortful Control: 18-30 Months

- Effortful control (EC): child learns how to stop doing what he wants to do in order to do what he has to do to solve a problem or reach a goal (e.g., Red Light-Green Light, Simon Says)
- Organize behavior to follow directions
- Inhibit/delay/give self the green light to act
- Monitor behavior to change according to the situation

Terrible 2's or 3's

- The infant brain instinctively copes with negative stimulation through self-soothing
- Gradually the toddler learns to feel powerful in this control
- Drive to exercise power and satisfy needs leads to the "terrible 2's and 3's"

The Intersection: Brain, Temperament, Environment

- Previous theories studied domains separately

- Current view: dynamic view of self-control as function of child's
  - Choice ➡ temperament
  - Brain development ➡ executive control
  - Environmental training ➡ role models

Source: Ayoub and Fischer. (2006).

Toddler: Self-Regulation Leads to Socialization

- Modify drive to meet needs
- Modulate behavior to meet demands of others
- Assert control over impulses
- Parents nurture socialization by helping children learn effortful control in the way that their environment deems acceptable

Executive Functioning and Temperament

- Temperament explains individual differences in attention, effortful control, and self-regulation

- Study of overstimulating infants—emerging 4 month temperament predicts preschool behavior:
  - Reactive at 4 months, less self-regulation as toddlers
  - Inhibited at 4 months, inhibited as preschooler
  - At 1 year old, infants who have self-regulation skills to disengage from stressful situations also show less frustration and anger in preschool

Source: Kagan et al. (1998).

Fearful Temperament: Fearful Infants Have …

- Increased childhood fear, sadness, and shyness
- Decreased approach, impulsivity, and aggression at age 7
- Fear does not predict later frustration/anger

Source: Rothbart et al. (1994).

Nature-Nurture: Chicken-Egg Question

- Influences on early self-regulation skills
  - Temperament
  - Caregiver response
  - Cultural expectations

- Positive feedback cycle: easy to manage, easy to like, and gain more help in problem solving

Parent's Temperament and Self-Regulation

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Outcomes: Empathy

- Self-regulators: high in effortful control
  - Less attention on their own inhibition
  - More attention on the needs of others
  - High in empathy and guilt/shame
  - Low in aggressiveness

Source: Rothbart et al. (1994).

Outcomes: Early Effortful Control and Later Coping

- Preschoolers: those who could delay gratification have better self-control, and are better at coping with stress, frustration, and temptation

- Adolescence: later parent-reported attentiveness, concentration, competence, ability to plan, and intelligence, SAT scores (controlling for intelligence)

- Adulthood: goal-setting and self-regulation skills

Source: Michel et al. (1988 and 1990).