



Adolescence and Juvenile Justice: Developmental and Neuroscience Findings and Implications

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Organization of Presentation

- What have we learned about developmental maturity as it relates to juvenile justice?
- What does the new neuroscience research tell us?
- What are the major implications of this rapidly expanding knowledge?

Adolescence

- For convenience, using ages 10 – 18 years
- Period of rapid transition in many domains
- Not all changes are well coordinated

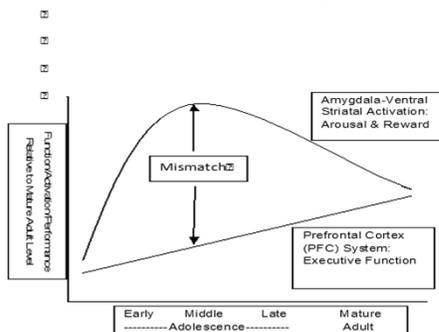
Developmental Maturity

- Cognitive Development
 - Numerous important changes
 - No sharp age markers, especially in logic or risk assessment
- Social Development
 - Increased behavioral autonomy
 - Increased peer interaction, influence, and susceptibility
- Emotional Development
 - Increased lability, strength of emotions, likely hormonal (pubertal) as well as brain-based
- "Judgment"
 - For all these reasons, develops slowly

"Car Without a Driver"

- Substantial increases in "approach" mechanisms, related to behavioral choice, romantic involvements, exploratory and risk taking behaviors. Also termed "bottom brain" or limbic system
- Growth in prefrontal cortex also begins during this transition, but is slower and longer lasting, into the mid-20s.
- Thus, a "developmental maturity mismatch" may underlie much adolescent risk behavior, including criminal activity and health risks.

Developmental Maturity Mismatch



Developmental Risks

- Impulsivity: hard to stop a runaway train
- "Planful" risk taking: exploring the world
- Increased intensity of desires, wants
- Internal checks from PFC (judgment) lag behind
- At the same time that adult external "scaffolding" declines

Implications

- Developmental maturity is a significant legal issue, with compelling science to indicate that there is a core developmental profile that characterizes adolescence
- Affects competence (ability to make legal judgments in proceedings), culpability (mitigation), and rehabilitative prospects
- Especially, transfer to adult jurisdictions needs to be made carefully and individually.
