MACARTHUR FOUNDATION RESEARCH NETWORK ON
Adolescent Development and Juvenile Justice
Development and Criminal Blameworthiness

Bringing Research to Policy and Practice
Questions to be Addressed in this Session

• Why is better understanding of adolescent development relevant to legislatures and courts when they are making decisions about the severity of criminal punishment?

• What are major implications of the Network’s research for boundary between juvenile and criminal courts and for sentencing of adolescents by either juvenile or criminal courts?
Blameworthiness vs. "Competence"

- Focus of this session is on blameworthiness of youthful offenders at time of the offense.

- Panel tomorrow will address implications of Network research for procedural fairness: i.e., whether a youth is sufficiently “competent” at time of adjudication to be tried at all.
Purposes of Criminal Punishment

• To prevent crime – through deterrence, incapacitation or rehabilitative intervention (“consequentialist” justification)

• To “do justice” – to impose justly deserved punishment in proportion to offender’s blameworthiness (“retributive” justification”)
Network’s Research is Relevant to Both Justifications

- Next session will focus on why what we know about adolescent development is relevant to judgments about the likelihood of re-offending or desistence: what is best way to prevent further offending?

- This session will focus on why what we know about adolescent development is relevant to relative blameworthiness and “proportionality”: how much punishment is deserved?
Basic Conclusion and Important Caveat

• “Proportionality” is not the only pertinent consideration in sentencing, BUT to the extent that it is taken into account, immaturity is morally relevant to blameworthiness and should have mitigating weight.

• Our focus in on mitigation, not excuse.
Why is Immaturity Morally Relevant to Theories of Mitigation?

- Two basic theories of mitigation: (1) offender’s capacity for blameworthy choice was “diminished” at time of offense; (2) offender’s conduct, though blameworthy, does not reflect a “bad” character.

- In general, immaturity mitigates blameworthiness in both respects.
Why Adolescents Lack Capacity for Fully Blameworthy Choice

- Still learning to modulate their impulses and to regulate their emotions

- Still learning to foresee and take into account long-term consequences and to delay short-term gratification

- Tend to be more susceptible to peer influence and more dependent on peer approval than adults
The Perils of Character Attributions in Adolescents

- One of the major developmental tasks of adolescence is formation of personal identity.

- To the extent that adolescent choices, including deviant ones, are tentative, impulsive, situational and experimental, they do not reflect enduring traits or values.

- Adolescent “character” is still taking shape.

- Mitigation based on immaturity draws on the same moral theory as systematic mitigation for first-offenders.
Now the Science....
Under the Law, Immaturity of Judgment May Mitigate Criminal Responsibility

• Self-control
  – Impulsivity
  – Excessive sensation-seeking

• Short-sightedness
  – Failure to think ahead
  – Orientation toward immediate gratification

• Susceptibility to Influence of Others
MacArthur Juvenile Culpability Study

- Are adolescents less mature than adults in ways specifically relevant to mitigation?
- Studied over 900 individuals from ages 10 to 30 in five sites
- Measures of planning, preference for immediate gratification, impulsivity, risk processing, sensation-seeking, susceptibility to peer pressure
- At what age do individuals demonstrate adult levels of maturity?
Self-Control
Impulsivity Declines With Age

10-11  12-13  14-15  16-17  18-21  22-25  26-30

Age
Sensation-Seeking Declines With Age

- 10-11
- 12-13
- 14-15
- 16-17
- 18-21
- 22-25
- 26-30

Age
Preference for Risk Peaks in Mid-Adolescence

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<tr>
<th>Age</th>
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With Age, Longer Time Spent Thinking Before Acting
Short Sightedness
Future Orientation Increases With Age
Older Individuals Are More Willing to Delay Gratification

![Bar chart showing amount accepted next day versus waiting one year for $1,000 across different age categories.](chart)
Risk Perception Declines and Then Increases After Mid-Adolescence
Risk Proclivity

Age

10-11  12-13  14-15  16-17  18-21  22-25  26-30

Risk Preference
Risk Perception
Susceptibility to Peer Pressure
With Age, Individuals Become More Resistant to Peer Influence
Peers Increase Risky Driving Among Teenagers and College Students But Not Adults
A Puzzle

• By age 16, individuals show adult levels of performance on tasks of basic information processing and logical reasoning

• Yet in the real world, adolescents show poorer judgment than adults
Basic Intellectual Abilities Are Mature By Age 16

10-11 12-13 14-15 16-17 18-21 22-25 26-30

Age
The Immaturity Gap

Intellectual maturity reaches adult levels at 16

Psychosocial development continues into early adulthood
Summing Up

- Adolescents are less able to control impulses and more driven by the thrill of rewards.
- Adolescents are more short-sighted and oriented to immediate gratification.
- Adolescents are less able to resist pressure from peers.
- Psychosocial maturity continues to develop into early adulthood, long after adolescents have become as “smart” as adults.
SECRETS OF THE TEEN BRAIN

Research is revolutionizing our view of the adolescent mind—and explaining its mystifying ways
What science tells us about the teen brain

- Functioning of the frontal lobes is not at adult levels

- Why is that important?
When the frontal lobes are damaged ....

• Individuals have trouble planning effectively towards a goal
  – They cannot see the consequences of their action for the future
  – They have trouble translating an abstract goal into a concrete plan

• They can look “normal” on tests of intelligence

• They can follow routines, but have problems with
  – Novel situations
  – When they must act differently than they normally do

• They can be very influenced by people and forces in the environment
Suggests the Following Possibility

• Because the brains of teenagers are not yet fully developed.....
  – Some of their behaviors may result from immaturity

• If a 4 year old child doesn’t follow signs posted on a bus, we don’t hold them responsible.
  – We realize that they are not yet capable of reading

• So what ARE the brain differences?
How do we measure this?

WOW! This is going to be way cool!
Take advantage of iron in blood

- Oxygenated and deoxygenated blood have different magnetic properties

Regions of differences are plotted

--------------- Finger Movement

--------------- No Finger Movement
Teens don’t use the frontal lobes effectively

- Their frontal lobes become active when adults don’t need them
  - “Is it a good idea to swim with sharks?”

- Their frontal lobes don’t become active when they need them
  - When they have to ignore information

IDENTIFY THE INK COLOR

BLUE
Frontal lobes aren’t as connected

- The connections between the frontal regions and other areas of the brain region increase during adolescence
  - Very important allowing internal ideas about how to control of behavior to be translated into action
  - A general, no matter, how brilliant, is ineffective if he can’t communicate with his troops
What does this mean?

• Adolescents may not have all the neural “hardware” in place for adult behavior.

• This “hardware” is especially important in non-routine situations when judgment calls need to be made and emotional influences are high.

• Like other general trends of development, these brain trends can say little about a specific individual.
  – All children crawl before they walk, but it is exceedingly difficult to predict when a given child will begin to walk.
Policy Implications of the Network’s Findings
Overview of Implications

- Findings provide strong case for mitigation based on immaturity under either “choice” theory or “character” theory
- But implementation raises complex problems of legal design
- Two basic approaches: individualized assessment vs categorical, age-based rules
- Each has benefits and drawbacks, but age-based mitigation rules (relating to jurisdictional age, reduced maximum sentences, etc) are preferable
Summary of Network Findings

- Research shows continued development well into the mid-20s in brain regions that govern thinking ahead, impulse control, and risk-taking. This research helps explain why adolescents tend to be more short-sighted, more impulsive, and more willing to engage in risky behavior.
Individualized Assessment

• Ideally, offender’s level of immaturity, and the impact of particular developmental deficits (e.g., impulsivity, foresight, risk-taking) on the conduct, could be assessed in each case.

• This is prevailing approach for mental disorder (did mental disease affect offender’s cognition or volitional control at time of offense?)

• **Problem**: we lack scientific tools to make reliable individualized assessments of maturity, and trying to do so carries substantial risks in practice
Categorical Line-Drawing

- Development of impulse control, judgment, foresight, etc, follows age gradient.

- Customary policy approach is to use age-based lines to approximate required level of maturity for different tasks (e.g., making medical decisions, driving, voting, alcohol access).

- Drawback is that age-based lines are inherently over-inclusive and under-inclusive due to individual differences in maturity and in situational differences in blameworthiness for any given act.
Best approach: Age-based Mitigation

• Under present circumstances, categorical age-based mitigation approach is highly preferable to either (1) ignoring the incapacities of adolescents (and imposing disproportionate punishments) or (2) trying to make individualized assessments of relative immaturity (and inviting arbitrary and often discriminatory judgments)
Where to Draw the Line?

• Science doesn’t tell us where to draw these age lines.

• **BUT** the policies chosen should at least be compatible with the scientific evidence

• **AND** policies chosen should also reflect costs of erroneously severe punishments vs erroneously lenient ones
Compare Roper v Simmons

- Although some 17-year-olds may deserve the ultimate punishment of death, the vast majority do not.

- An individualized decision presents a serious risk of disproportionate punishment because jurors might interpret immaturity as an aggravating circumstance rather than a mitigating one.

- Thus a categorical exclusion <18 is the better constitutional rule.
Age-Based Mitigation Should be Built into the Process at All Stages

- Minimum age of delinquency jurisdiction (e.g. 12)
- Juvenile court sentencing structure should reflect age distinctions between older and younger adolescents
- Minimum age of criminal court jurisdiction should be no lower than 14. While strong proportionality-based arguments can be made for setting the minimum age of criminal court jurisdiction at 15 or 16, where the age is set should also take into account other factors, such as the dispositional age of juvenile court jurisdiction and the role played by the juvenile judge in the transfer decision.
  - Maximum sentences in criminal court should be reduced for adolescent offenders
  - Minimum sentences in criminal court should be eliminated or reduced for adolescent offenders