




Neuroscience and Individualized Sentencing of Juveniles

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Minnesota Sentencing Guidelines Commission



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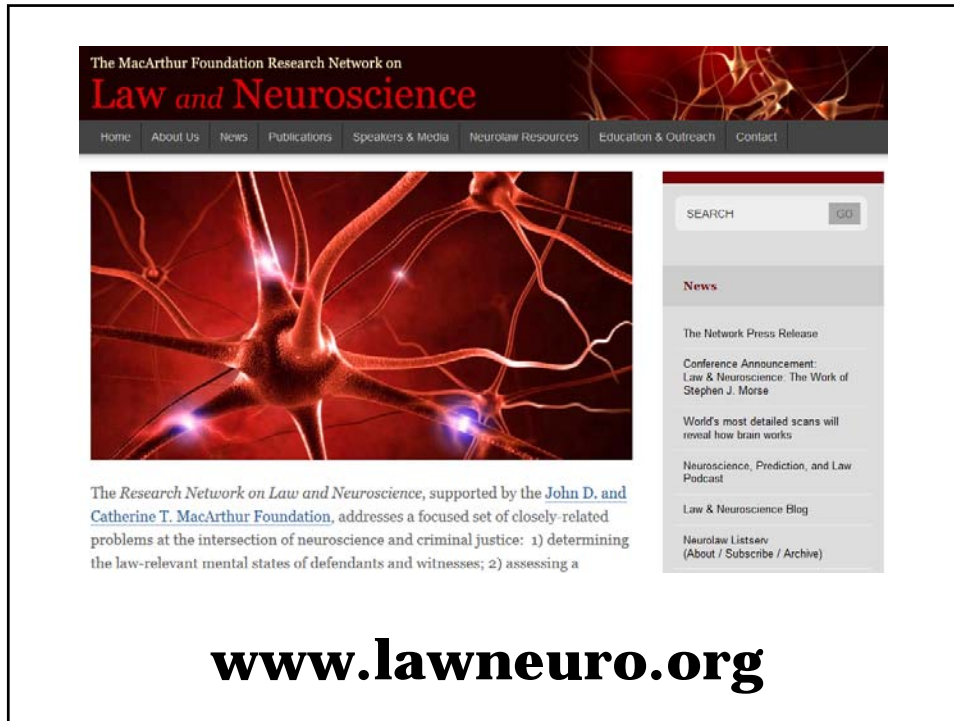
Conclusions



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News

The Network Press Release

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Law & Neuroscience: The Work of Stephen J. Morse

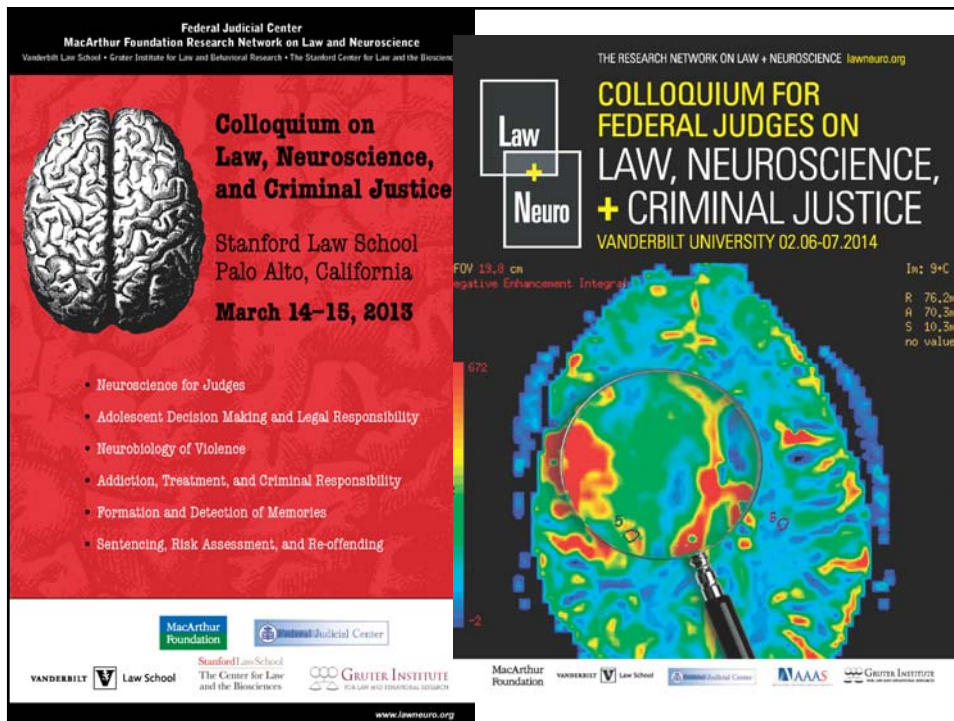
World's most detailed scans will reveal how brain works

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Federal Judicial Center
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Colloquium on Law, Neuroscience, and Criminal Justice

Stanford Law School
Palo Alto, California
March 14-15, 2013

- Neuroscience for Judges
- Adolescent Decision Making and Legal Responsibility
- Neurobiology of Violence
- Addiction, Treatment, and Criminal Responsibility
- Formation and Detection of Memories
- Sentencing, Risk Assessment, and Re-offending

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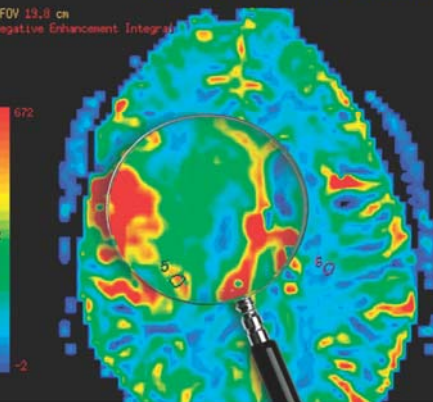
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VANDERBILT UNIVERSITY 02.06-07.2014




FOV 19.8 cm
negative Enhancement Integral

In: 9°C
R 75.2mm
A 70.3mm
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The screenshot shows the website for the Massachusetts General Hospital Center for Law, Brain & Behavior. The header includes the MGH logo, the center's name, and social media icons. A navigation menu contains 'About Us', 'Programs', 'News and Events', and 'Get Involved'. The main content area features a large image of people in white coats with 'JUVENILE' on their backs, and a 'Program Mission' section. The mission text states: 'The long-range goals of the juvenile justice program are to promote neuroscientific research that may elucidate the adolescent brain, to establish an effective resource for the translation of new neuroscientific findings that may have implications for juvenile justice to the policy arena, and to realize changes in juvenile criminal law and treatment that accurately reflect the science.'

<http://clbb.mgh.harvard.edu/juvenilejustice/>



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The Legal Context

Roper v. Simmons (2005) (prohibiting the death penalty for juveniles)

Graham v. Florida (2010) (prohibiting life without the possibility of parole for non-homicide juveniles)

Miller v. Alabama (2012) (prohibiting mandatory life without the possibility of parole for juveniles, even in homicide cases)

Montgomery v. Louisiana (2016) (applying *Miller* retroactively)

The Legal Context

Montgomery v. Louisiana (2016) :

Miller had limited LWOP to the “rare juvenile offender whose crime reflects **irreparable corruption**”

Also noted the language of “**irretrievably deprived,**”

LWOP can be applied only to “the rarest of juvenile offenders, those whose crimes reflect **permanent incorrigibility,**” which would exclude “the vast majority of juveniles”

The Legal Context

2016 Minnesota Statutes

609.106 HEINOUS CRIMES.

Subdivision 1. **Terms.** (a) As used in this section, "heinous crime" means:

- (1) a violation or attempted violation of section [609.185](#) or [609.19](#);
- (2) a violation of section [609.195](#) or [609.221](#); or
- (3) a violation of section [609.342](#), [609.343](#), or [609.344](#), if the offense was committed with force or violence.

(b) "Previous conviction" means a conviction in Minnesota for a heinous crime or a conviction elsewhere for conduct that would have been a heinous crime under this chapter if committed in Minnesota. The term includes any conviction that occurred before the commission of the present offense of conviction, but does not include a conviction if 15 years have elapsed since the person was discharged from the sentence imposed for the offense.

Subd. 2. **Life without release.** The court shall sentence a person to life imprisonment without possibility of release under the following circumstances:

- (1) the person is convicted of first-degree murder under section [609.185, paragraph \(a\)](#), clause (1), (2), (4), or (7);
- (2) the person is convicted of committing first-degree murder in the course of a kidnapping under section [609.185, paragraph \(a\)](#), clause (3); or
- (3) the person is convicted of first-degree murder under section [609.185, paragraph \(a\)](#), clause (3), (5), or (6), and the court determines on the record at the time of sentencing that the person has one or more previous convictions for a heinous crime.

[See Note.]

History: [1998 c 367 art 2 s 6](#); [art 6 s 3, 15](#); [2002 c 401 art 1 s 13](#); [2005 c 136 art 2 s 5](#); [art 17 s 9](#); [2015 c 21 art 1 s 98](#)

NOTE: Subdivision 2 as applied to juvenile defendants was severed and the previous version of that subdivision revived in *Jackson v. State*, 883 N.W.2d 272 (Minn. 2016).



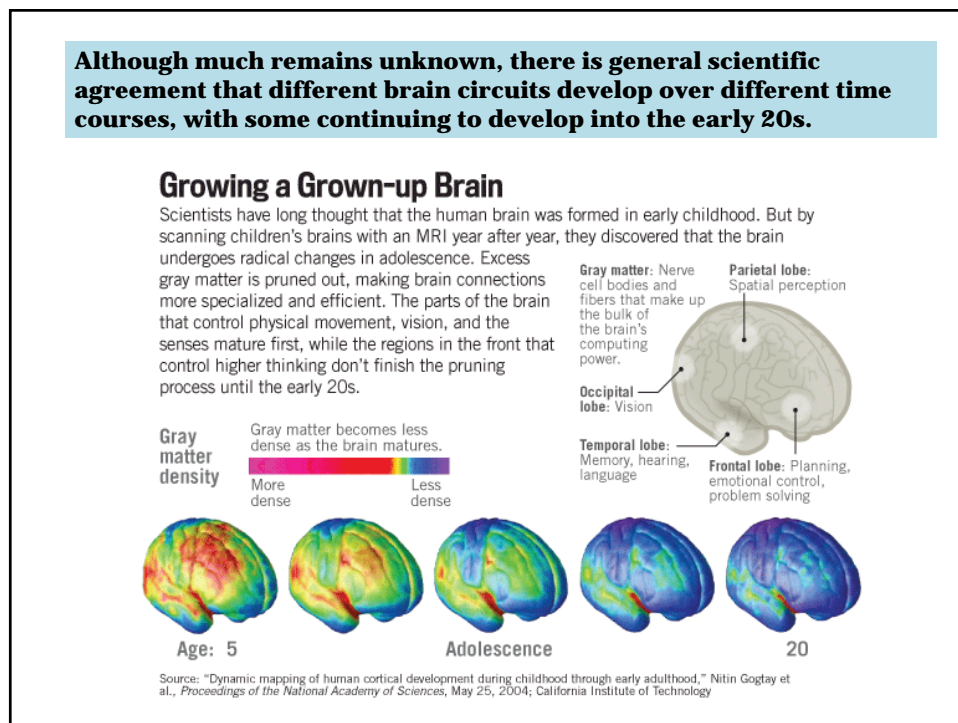
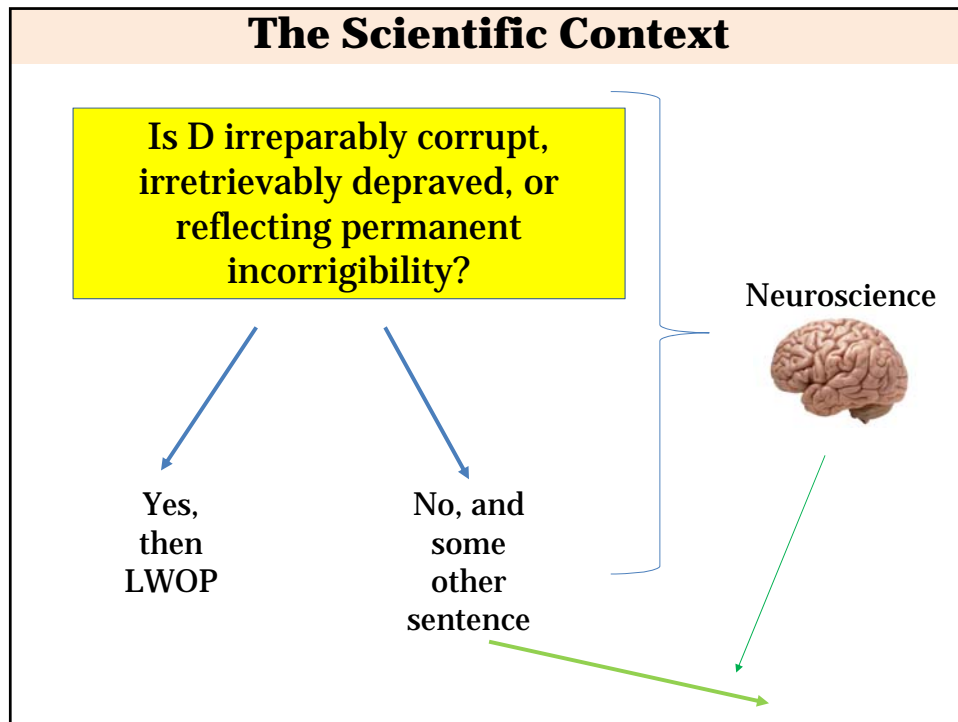
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There is less agreement about whether and how this scientific knowledge about adolescent brain development can / should be meaningfully used in legal contexts.

Three arguments in favor of using neuroscience evidence in individual juvenile sentencing are.

- 1. Bolstering – it makes departure more difficult to justify.** Because the neuroscience converges with behavioral evidence and conventional wisdom, the case is even stronger that the default should be NOT to treat <18 year olds as adults.
- 2. It's relevant – so use it (similar to how you use other imperfect, but relevant and admissible evidence).** Even acknowledging the many limitations of the evidence, it meets the relevance bar and is thus appropriate for the sentencing judge to consider.
- 3. It might be especially effective or persuasive.** Pragmatically, the brain evidence might capture the imagination of the sentencing judge, and/or allow the judge a more politically and socially palatable rationale for a less punitive sentence.

Two major challenges are:

1. **We don't know enough.** We don't have sufficient scientific knowledge about how the brain enables complex mental states (of the type the law requires us to consider).
2. **What we do know may not be useful for individual adjudication.** To date, neuroscience has not yet been able to provide clinicians with meaningful data about particular *individuals*. This creates a Group to Individual (G2i) inference challenge.

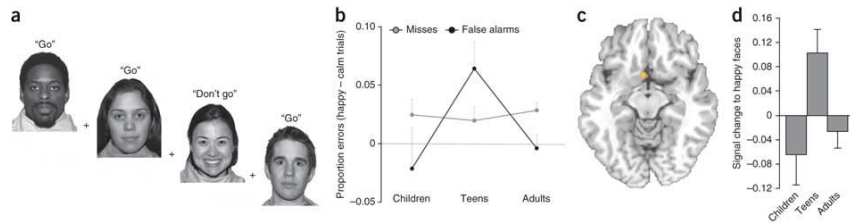
What we DON'T know:

The brain-mind-action relation is a mystery. ... Despite the astonishing advances in neuroimaging and other neuroscientific methods, we still do not have sophisticated causal knowledge of how the brain works generally and we have little information that is legally relevant. ... virtually no studies have been performed to address specifically legal questions.

Stephen J. Morse, *Avoiding Irrational Neurolaw Exuberance: A Plea for Neuromodesty*, 62 Mercer L. Rev. 837, 849 (2011)

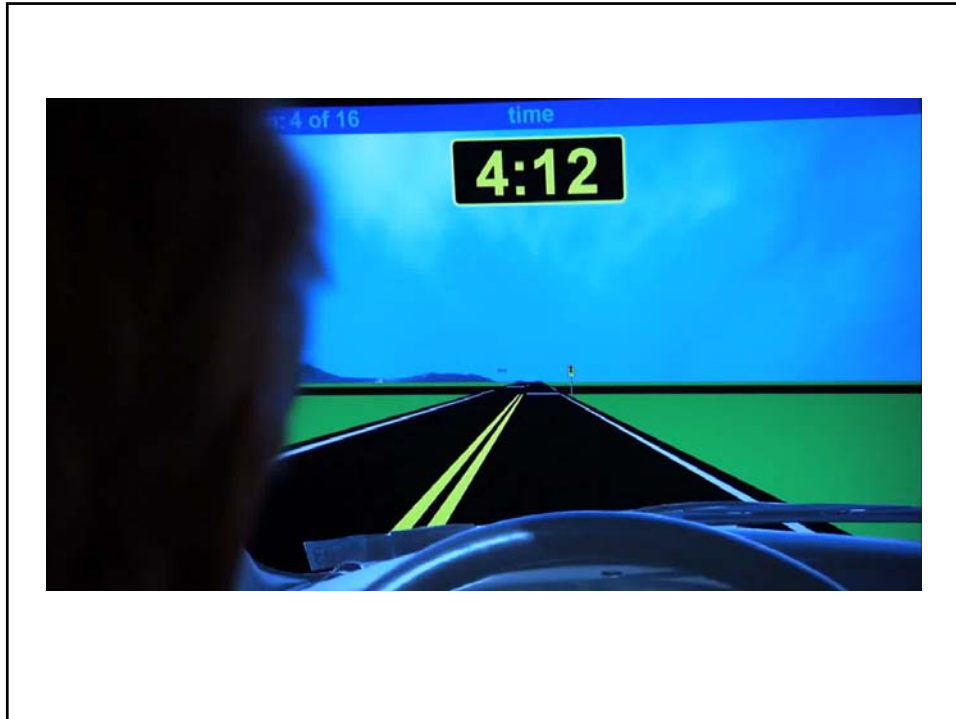
Where does brain data about adolescent risk taking come from?

Example: a neuroscience “go no-go task”



Sarah-Jayne Blakemore & Trevor W Robbins, Decision-making in the adolescent brain, *Nature Neuroscience*, 15, 1184–1191(2012), doi:10.1038/nn.3177

Here's an example of a peer influence brain scanning study by Temple scientists Jason Chein and Larry Steinberg:



Such research is impressive!

But ... it's only a beginning.

These are just the beginning findings from an emerging field ... One very clear direction for future work is to ascertain the particular qualities of an individual that are most closely associated with preference for risk in general, and with vulnerability to social influence in particular. **At this point we know very little about what makes a given individual "at-risk" for susceptibility to peer influence, or what attributes or experiences might protect an adolescent from being unduly influenced.** – *Dr. Jason Chein*

The Challenge of Group to Individual (G2i) Inference

“While science attempts to discover the universals hiding among the particulars, trial courts attempt to discover the particulars hiding among the universals.”

David L. Faigman, *Legal Alchemy* 69 (1999).



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Neuroscientific Evidence In Court
:: *Juvenile Justice*



Roper v. Simmons (2005)

Shirley Crook
(murdered by Christopher Simmons)

Conclusion: What can we say about the possible use of neuroscientific information in sentencing heinous juvenile crimes in Minnesota?

1. If brain data is used at all, it will be NOT be brain data from any of the actual offenders. It will be group-averaged brain data from brains of adolescents in research studies.
2. There is disagreement in the scholarly community about whether and how this group-averaged information can be meaningfully applied in individual cases.
3. It would be reasonable not to consider the neuroscience. It would also be reasonable to consider it—but only if attorneys and courts should proceed with appropriate caution.