

# SENTENCING AND NEUROSCIENCE

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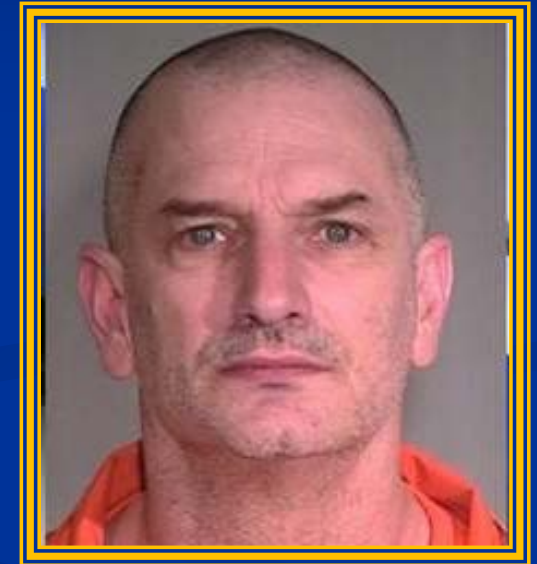
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# The Case of John McCluskey

New Mexico, 2014

- convicted of carjacking and murder  
brain scans admitted, showed  
substantial damage to frontal lobe



## Court Decision

- no death penalty
- jurors viewed brain abnormalities  
as mitigating factor

# The Case of Grady Nelson

Florida, 2010

- convicted of first degree murder
- brain mapping evidence ruled admissible for the first time

## Court Decision

- no death penalty
- jurors influenced by neuroscience evidence



# Neuroscience Defined

“The branch of life sciences that studies the brain and nervous systems [including] . . . brain processes such as sensation, perception, learning, memory, and movement.”

American Association for the  
Advancement of Science

## ***Cognitive Neuroscience***

cognitive science, psychology & neuroscience  
→ mechanisms of the mind

Key criminal law concepts of culpability depend on the internal workings of individuals' minds.

# Neuroscience Evidence as a Double-Edged Sword

Neuroscience evidence may diminish a defendant's blameworthiness for his crime even as it indicates that there is a probability that he will be dangerous in the future.

***“The Myth of the Double-Edged Sword”***



# The Neuroscience Study

- Unprecedented analysis of all criminal law cases (800) addressing neuroscience evidence between 1992-2012
- Extensive and systematic empirical data that show how neuroscience evidence is used in courtrooms

# What the Neuroscience Study Reveals

- Neuroscience evidence has been integrated into the criminal justice system in ways that have never before been documented or analyzed.
- The criminal justice system is willing to accept and comprehend the strengths and limitations of neuroscience evidence in ways that discredit the myth of the double-edged sword.



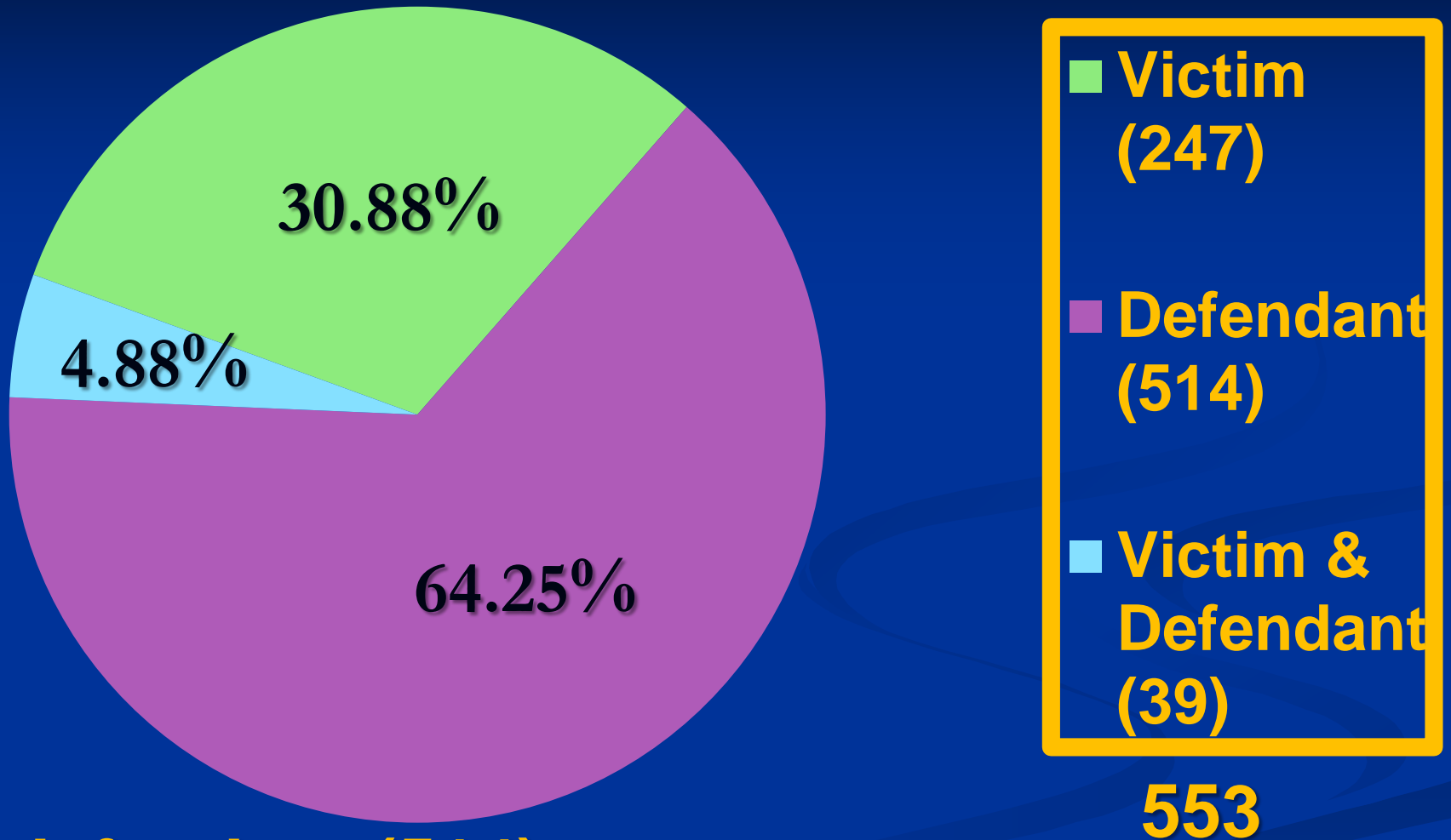
The key question is not  
*whether* neuroscience evidence  
should be used in the criminal  
justice system,  
but rather *how* and *why*.

# Neuroscience Evidence Defined

## Two broad groups of tests:

- “imaging tests” – generated by computer images of a human brain
- “non-imaging tests” – administered by a medical professional to an individual

# Categories of Cases



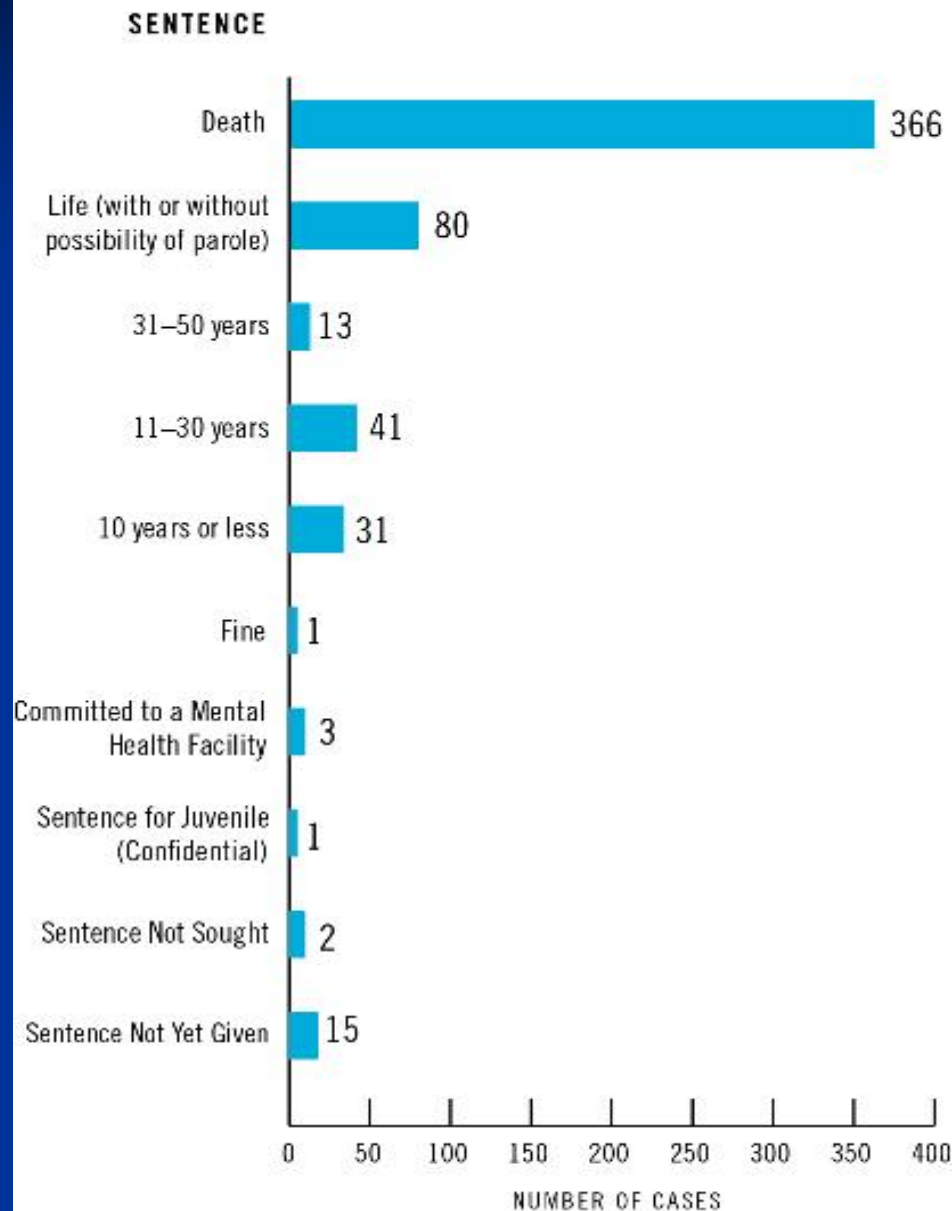
- defendant (514)
- victim & defendant (39)

553  
"Defendant Cases"

Chart 1

**Severity of Sentence by Number of Cases**

553 Total Cases



# What the Neuroscience Study Reveals

**Stages of Cases:** in a capital case, neuroscience may be incorporated during the guilt-or-innocence phase and/or the penalty phase

## Aggravation v. Mitigation

- Most death penalty states require jury to consider State's evidence of aggravation and defendant's evidence of mitigation.
- Aggravating factors must outweigh mitigating factors for defendant to be sentenced to death.

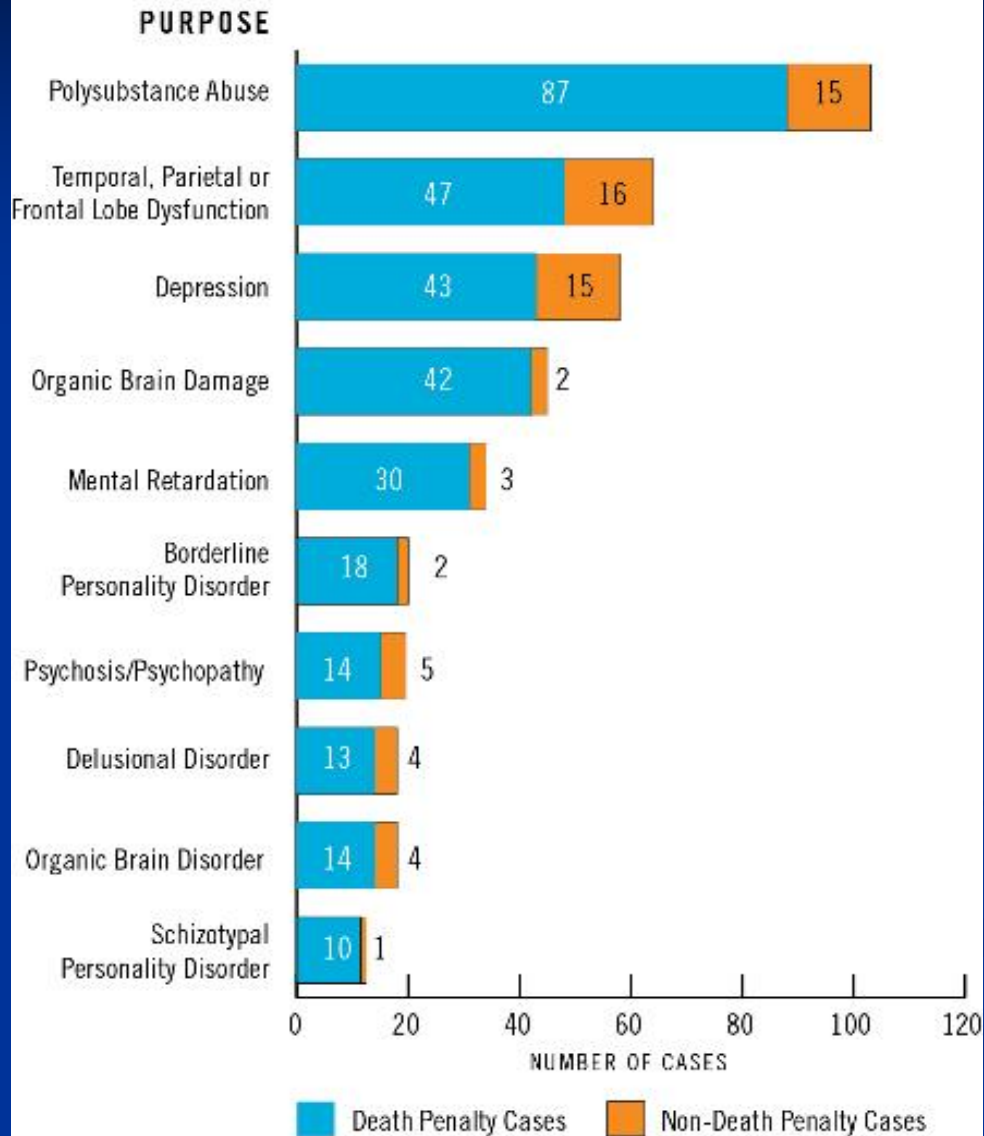
## Aggravation v. Mitigation cont'd.

- first empirical study to systematically investigate how courts assess the mitigating and aggravating strength of neuroscience evidence
- usually offered to mitigate punishments, especially in the penalty phases of death penalty trials
- courts typically accept neuroscience evidence for this purpose

This finding directly controverts the popular image of neuroscience evidence as a double-edged sword.

Chart 2

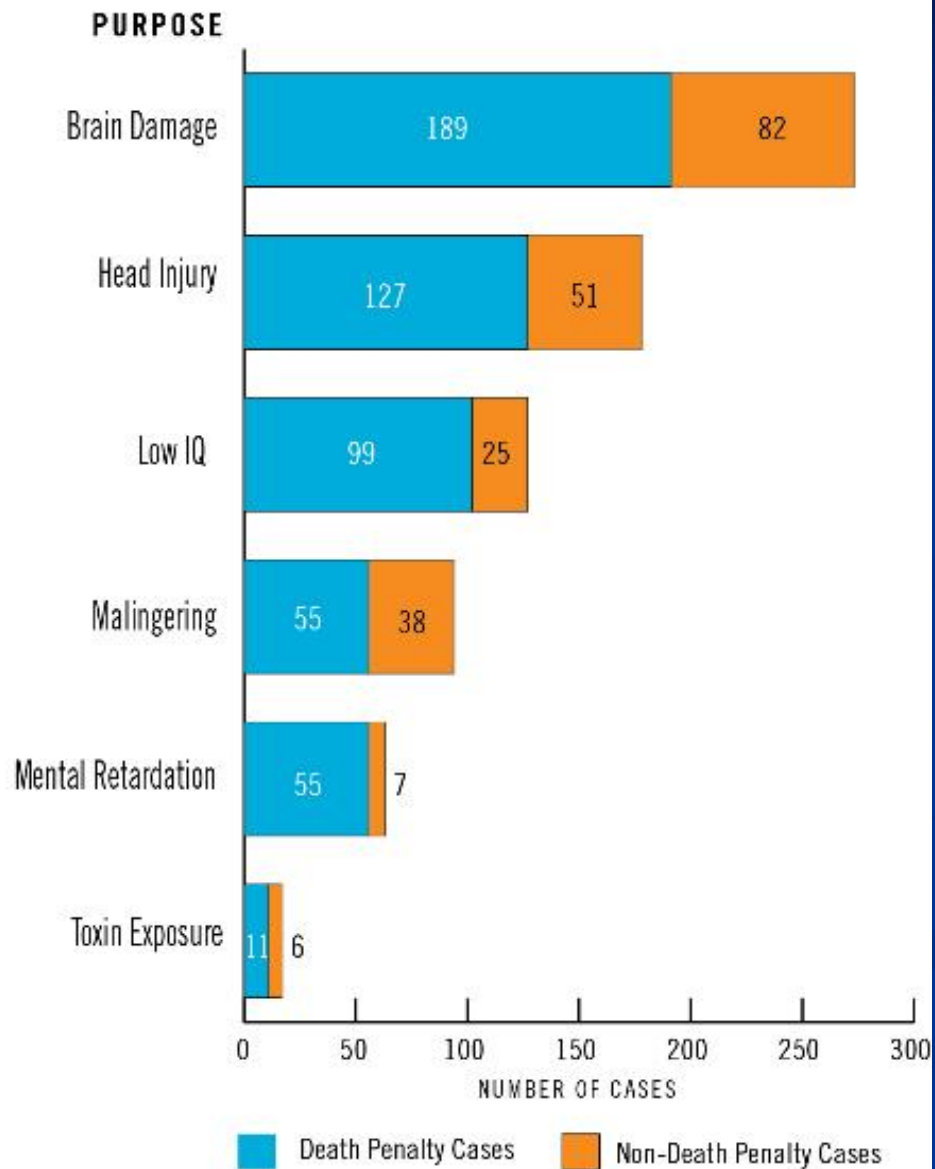
**Confirmed Neuroscientific Diagnoses by Number of Cases\***  
553 Total Cases



\* Categories are not mutually exclusive

Chart 3

**Purpose of Presenting Neuroscience Evidence by Number of Cases\***  
553 Total Cases



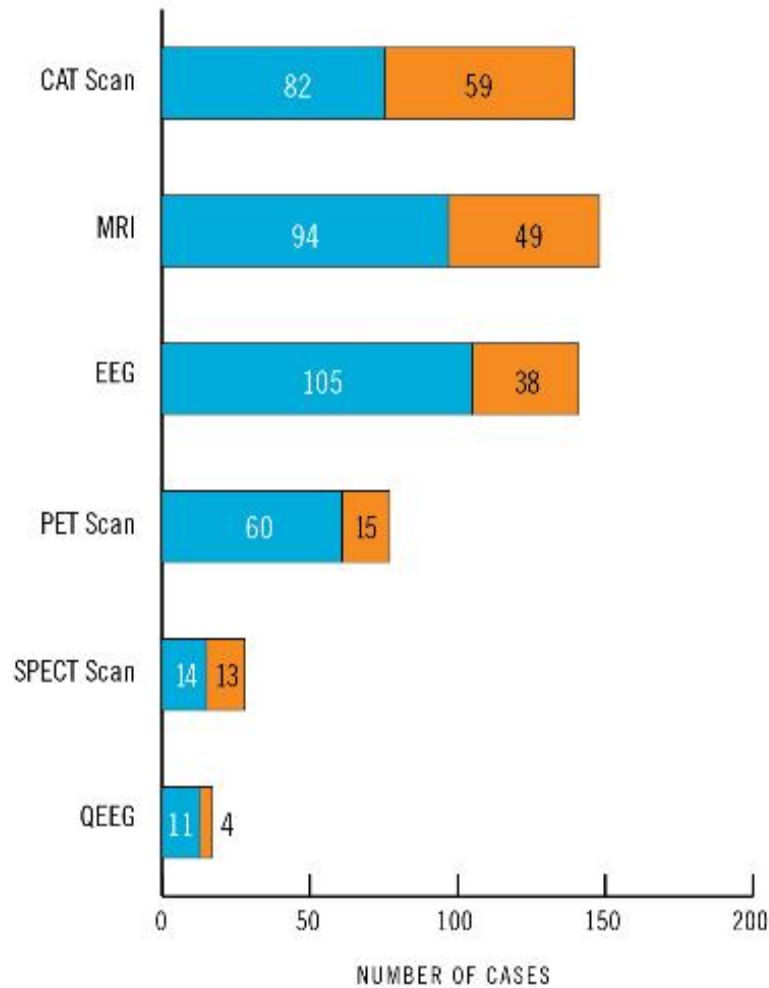
\* Categories are not mutually exclusive



Chart 4

**Use or Discussion of Brain Imaging Technology by Number of Cases\***  
553 Total Cases

**BRAIN IMAGING TECHNOLOGY**



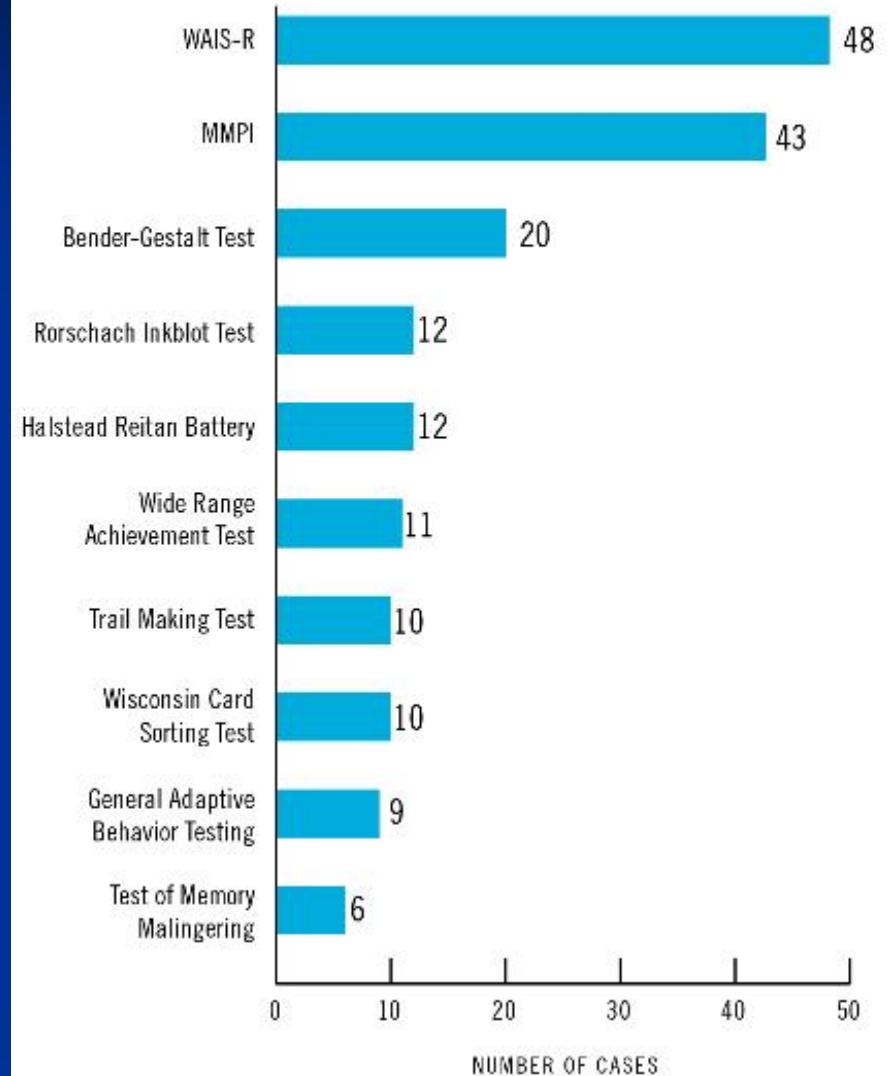
■ Death Penalty Cases ■ Non-Death Penalty Cases

\* Categories are not mutually exclusive

Chart 5

**Use or Discussion of Non-Imaging Tests by Number of Cases\*\***  
553 Total Cases

**TYPE OF TEST**



\* Categories are not mutually exclusive

\*\* Chart 5 lists the top 10 most widely used tests. There were 68 additional types of tests.

# Ineffective Assistance of Counsel “*Strickland* Claim”

U.S. Supreme Court →

- attorneys must investigate “all reasonably available mitigating evidence”
- includes defendants’ cognitive and intellectual deficiencies; such evidence has a pronounced impact on mitigation, especially in capital cases

# ***Strickland v. Washington***

## **two-pronged test:**

- (1) counsel's performance must be "deficient"
- (2) this deficient performance must have "prejudiced" the defendant
  - poor quality; "but for" cause of resulting conviction

## **relief typically granted in form of:**

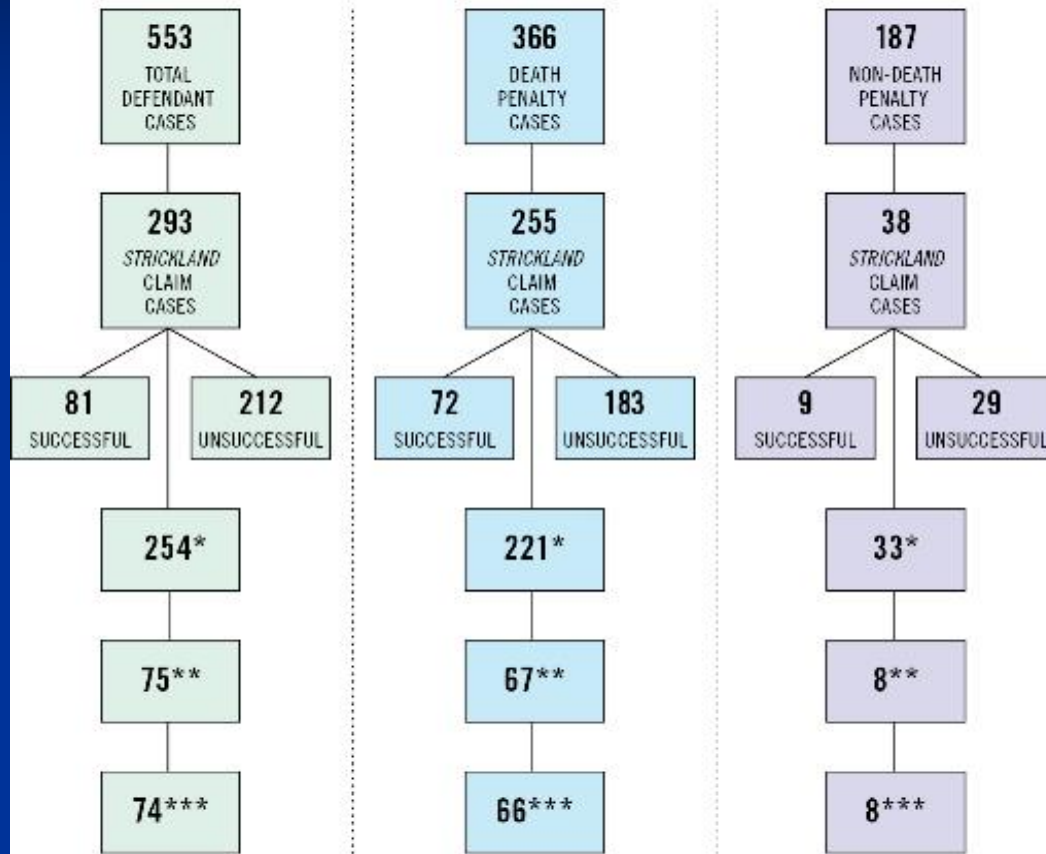
- new penalty phase
- reversal of conviction for a new trial
- remand with instructions to hold new evidentiary hearing

# What the Neuroscience Study Reveals: The Success of *Strickland* Claims

Among the *Strickland* claims recorded in the Study's 553 Defendant Cases, nearly all of the successful claims were based on an attorney's failure to appropriately investigate, gather, or understand neuroscience evidence.

Chart 6

**Number of Cases Raised To Support at Least One Claim  
of Ineffective Assistance of Counsel**  
553 Total Cases



\*Category 1: Number of *Strickland* claim cases that featured at least one claim based on misuse or non-use of neuroscience evidence

\*\*Category 2: Number of *Strickland* claim cases in Category 1 that were granted

\*\*\*Category 3: Number of *Strickland* claim cases in Category 1 that were granted based on the misuse or non-use of neuroscience evidence

## How Counsel Damage Their Cases:

- actively v. passively
- failure to adequately present a case in mitigation (FTPM)

# Why Counsel Omit or Mishandle Neuroscience Evidence

- sentencing phase was unexpected
- ignorance in mishandling of evidence or in communications with experts or clients
- straightforward incompetence
- belief that neuroscience evidence would do more harm than good

# Courts Reject “Strategic Decision”

- ***Hurst v. State*** – counsel failed to investigate and present “mental mitigation” evidence, claiming it would be “inconsistent” with client’s innocence
- ***Turpin v. Lipham*** - counsel failed to hire medical expert, claiming client’s mental health records indicated both aggravating and mitigating factors
- ***Simmons v. State*** - counsel failed to investigate, uncover, and present mitigating evidence

Double-edged sword argument is unpersuasive.

# What Do Courts Expect From Attorneys Using Neuroscience?

- What type of neuroscience evidence will be used?
- How will the court handle that evidence?
- When and why are the attorneys in these cases deemed ineffective?



# Case Studies Representing Successful Neuroscience-Related *Strickland* Claims

## (1) *Simmons v. State*

105 So. 3d 475 (Fla. 2012)

failure to investigate/present mitigating evidence

## (2) *Frierson v. Woodford*

463 F.3d 982 (9th Cir. 2006)

failure to review prior history and testimony

## (3) *Hooper v. Mullin*

314 F.3d 1162 (10th Cir. 2002)

failure to properly handle evidence and experts

## Case Studies cont'd.

- (4) ***Waters v. Zant*** 979 F.2d 1473 (11th Cir. 1992),  
*vacated*, 11 F.3d 139 (11th Cir. 1993)

failure to distinguish aggravating and mitigating  
circumstances

- (5) ***Stankewitz v. Wong***

659 F. Supp. 2d 1103 (E.D. Cal. 2009)

failure to research early childhood disorders

- (6) ***James v. Ryan*** 679 F.3d 780 (9th Cir. 2012),  
*vacated*, 133 S. Ct. 1579 (2013)

failure to evaluate mental health and drug abuse

# ***Strickland Claims – Summary***

- It is critical for attorneys to fully investigate and present mitigation evidence, particularly in death penalty cases.
- Neuroscience--in all of its many facets--is an important component of mitigation.

# Neuroscience and Future Dangerousness

## *Future Dangerousness:*

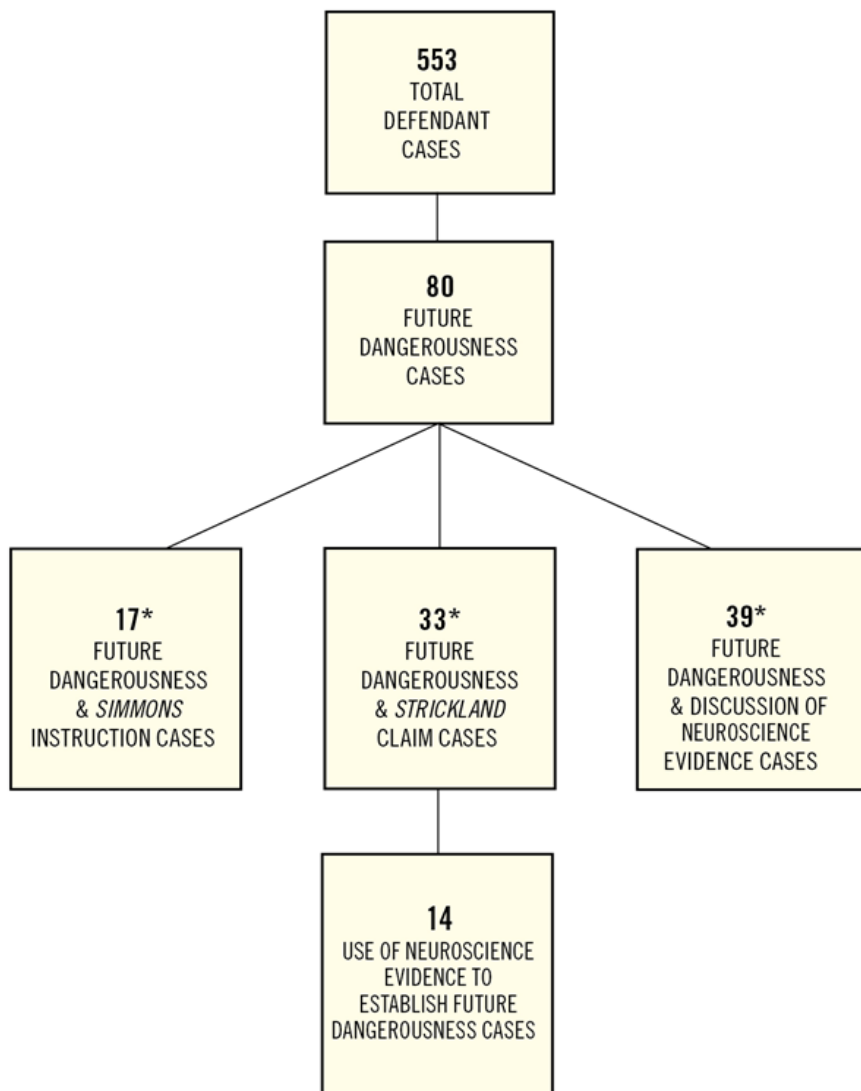
- likelihood that defendant will commit future crimes
- aggravating factor considered at penalty phase of capital trial

**Prosecutors are unlikely to seek the death penalty based on the claim that neuroscience evidence indicates future dangerousness.**

Chart 7

Number of Cases Addressing Defendants' Future Dangerousness\*

553 Total Cases



\* Categories are not mutually exclusive

# **Simmons v. South Carolina**

512 U.S. 154 (1994)

If a prosecutor in a capital case raises concerns regarding a defendant's future dangerousness, the jury must be instructed that life in prison is equivalent to life without the possibility of parole.

# Themes Among Future Dangerousness Cases

- In all but one of the cases, the court affirmed the defendant's death sentence.
  - *State v. Ross*, 646 A.2d 1318 (Conn. 1994)
- In the remaining cases, attorneys demonstrated far less egregious behavior than in the *Strickland* claim cases
- A number of the remaining cases referred to neuroscience mitigation evidence as a double-edged sword.

# Future Dangerousness Cases: Neuroscience as a Double-Edged Sword

- *Bryan v. Mullin* 335 F.3d 1207 (10th Cir. 2003) (Henry, J., concurring in part and dissenting in part)
- *Ex parte Lucas* 877 S.W.2d 315 (Tex. Crim. App. 1994)
- *Maldonado v. Thaler* 662 F. Supp. 2d 684 (S.D. Tex. 2009), *aff'd*, 625 F.3d 229 (5th Cir. 2010)
- *Dowthitt v. Johnson* 180 F. Supp. 2d 832 (S.D. Tex. 2000)

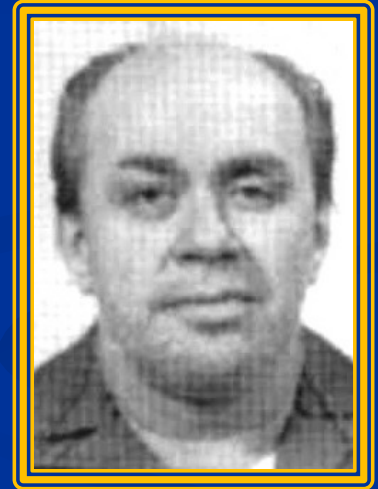
# Future Dangerousness Cases

## *Fleenor v. Farley*

47 F. Supp. 2d 1021 (S.D. Ind. 1998), *aff'd*, 171 F.3d 1096 (7th Cir. 1999)

- *unanticipated expert testimony*

Court found that counsel was aware that “the nature of any mental disorder or behavioral problem would be explored in detail, including any persistent and continuing patterns of violent conduct.”



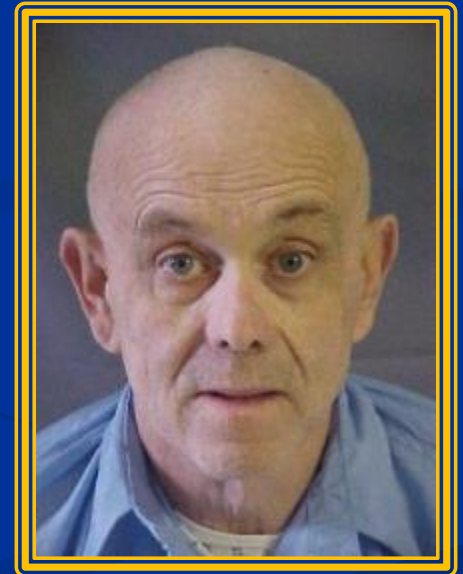


# Future Dangerousness Cases

## *Bryan v. Mullin*

335 F.3d 1207 (10th Cir. 2003) (Henry, J., concurring in part and dissenting in part)

- *the slide from mitigation to danger*
  - Counsel lacked medical evidence necessary to adequately argue an insanity plea
  - Bryan explicitly did not want his counsel to present evidence portraying him as mentally ill
  - Bryan told counsel that he would not accept a guilty plea, even if doing so meant avoiding a death sentence



# Future Dangerousness Cases

## *Maldonado v. Thaler*

662 F. Supp. 2d 684 (S.D. Tex. 2009), *aff'd*, 625 F.3d 229 (5th Cir. 2010)

- *the special case of mental retardation*

Court found that “[t]he double-edged nature of the mitigating evidence would make it not reasonably probable that the jury would answer the special issues differently had trial counsel emphasized low intelligence in the punishment phase.”



# Future Dangerousness Cases

## *People v. Peeples*

793 N.E.2d 641 (Ill. 2002)

- *the two sides of cognitive deficiency*

Court found that if the jury had heard evidence regarding Peeples's mental impairments, in addition to Peeples's history of violent behavior, "the sentencer could have reasonably concluded that this evidence demonstrated [Peeples's] future dangerousness."

# Future Dangerousness Cases

## ***Smith v. Workman***

550 F.3d 1258 (10th Cir. 2008)

- *the role of psychiatric experts*

## ***Ake v. Oklahoma***

470 U.S. 68 (1985)

“When a defendant demonstrates to the trial judge that his sanity at the time of the offense is to be a significant factor at trial, the State must, at a minimum, assure the defendant access to a competent psychiatrist.”

# Contradiction Presented by the Double-Edged Sword

Courts urge attorneys to fully investigate and present mitigating evidence such as neuroscience.

Yet, in a limited number of cases, courts also accept arguments that neuroscience evidence can be indicative of a defendant's future dangerousness.

# Conclusion

The criminal justice system accepts:

- the strengths and limitations of neuroscience evidence in ways that discredit the myth of the double-edged sword
- modern methods of assessing defendants' mental capabilities, and expects attorneys to do the same

As courts continue to support neuroscience tools, empirical data will provide a foundation for discussions regarding the use of neuroscience evidence in criminal cases.

**Questions?**