Behavioral Genetics and Criminal Sentencing Across Two Decades

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Evidence
- Records of four generations of relatives affected by serious mental and behavioral disorders
- Diagnosed with paranoid schizophrenia
- History of substance abuse

Court Decision
- Found incompetent to stand trial
- Pled guilty to all counts
- Sentenced to life in prison without parole
BRADLEY WALDROUP (TENNESSEE, 2012)

Evidence
- Genetic propensity for violence ("Warrior Gene")
- Low activity allele of the MAOA gene
- History of severe child abuse

Court Decision
- Evidence of gene-environment combination in Waldroup’s background led jury to decline issuing the death penalty.
BALANCING AGGRAVATING AND MITIGATING FACTORS

- **Aggravating Factor**
  - Any fact or circumstance that increases the severity or culpability of a criminal act.

- **Mitigating Factor**
  - Information or evidence relevant to the defendant’s character or the circumstances of the offense presented as a basis for a sentence less than death.
AGGRAVATING VS. MITIGATING FACTORS

- **Aggravating Factors**
  - Commission of an offense in an especially heinous, cruel or depraved manner
  - Use, threatened use or possession of a deadly weapon
  - Commission of an offense expecting to receive something of pecuniary value

- **Mitigating Factors**
  - Information about a capital defendant’s background/life prior to the crime
  - Capacity to appreciate the wrongfulness of the conduct
  - Aspects of the defendant’s character
Behavioral genetics researchers study genetic and environmental sources of variation in human behavioral traits to measure the inheritance of particular characteristics.
**BEHAVIORAL GENETICS AS MITIGATING EVIDENCE**

- **Genes:**
  - Are controlled by environment
  - May potentially predispose an individual to behavioral tendencies, such as aggression.

- **Behavioral Genetics Evidence Includes:**
  - The study of a defendant’s family history
  - Direct testing of the defendant’s physiological makeup (via brain scans)
SNAP SHOT OF THE LONGITUDINAL STUDY

Part 1

- Unique study of courts’ uses of behavioral genetics evidence over seventeen years through an analysis of 81 criminal cases decided between 1994 and 2011.

Part 2

- The study focuses on the role of behavioral genetics evidence through an analysis of 33 criminal cases decided between June 1, 2007 and July 1, 2011.
SUMMARY OF FINDINGS

- The use of behavioral genetics evidence within the last four years.
  - Applied almost exclusively as mitigating evidence in death penalty cases.
    1. To support claims of ineffective assistance of counsel.
    2. To provide proof and diagnosis of defendant’s mitigating condition.
  - No case where evidence is introduced by the State.
- Breakaway trends within the last four years.
GLENDA SUE CALDWELL (GEORGIA, 1987)

Evidence
- Argued defense of insanity caused by marital separation and fear of contracting Huntington’s Chorea Disease
- Exhibited stress and a borderline personality

Court Decision
- Found Caldwell guilty, but mentally ill
- Determined defense to be unsupported by evidence
- Acquitted 9 years later when officially diagnosed
Evidence
- Four generations of Mobleys engaged in acts of violence, aggression, and behavioral disorder.

Court Decision
- Court did not allow Mobley to be tested for genetic disability linked to high levels of aggression.
JEFFREY LANDRIGAN (ARIZONA, 1993)

Evidence

- Biological background indicating genetic propensity for violence.

Court’s Decision

- Landrigan received the death penalty.
- Held that Landrigan’s biological background wouldn’t have affected the outcome of his trial.
- Believed his behavioral genetics evidence could be used to predict future violence based on Landrigan’s lack of remorse.
SUSAN SMITH (SOUTH CAROLINA, 1995)

Evidence
- Depression and mental illness in family
- Was abused as a child
- Was attempting to commit suicide when she murdered her kids.

Court Decision
- Found that she lacked the necessary mental state for premeditated murder.
- Did not issue death penalty based on evidence of depression and attempted suicide
THE ROLE OF BEHAVIORAL GENETICS EVIDENCE IN 33 CRIMINAL CASES OVER THE PAST 4 YEARS

- Focus on the use of behavioral genetics evidence during the penalty phase of trial.
- Behavioral genetics evidence is of significance nearly exclusively in death penalty cases and is applied in no case involving less than a life sentence.
- In ten of this Study’s thirty-three cases, defendants originally sentenced to death had their death sentence vacated on appeal.
PURPOSE OF PRESENTING GENETICS EVIDENCE

Purpose
- Mitigation: 29 cases
- Mental Retardation: 3 cases
- Competency: 1 case
- Aggravation: 0 cases

Number of Cases
NATURE OF EVIDENCE SOUGHT TO BE ADMITTED

Number of Cases

- Expert Testimony: 24 cases
- Family History: 18 cases
- Behavioral History: 4 cases
- Medical History: 3 cases
REASONS FOR INTRODUCING GENETICS EVIDENCE

- Family Dysfunction: 4 cases
- Sexual Sadism: 1 case
- Propensity Toward Criminal Behavior: 2 cases
- Predisposition Toward Violence: 1 case
- Bipolar Disorder: 1 case
- Schizophrenia: 3 cases
- Mental Retardation: 3 cases
- Depression: 4 cases
- Mental Illness (Unspecified): 9 cases
- Alcohol Dependency: 14 cases
- Substance Dependency: 16 cases

- Genetics Evidence Rejected by Court
- Genetic Evidence Offered by Defendant

Number of Cases
Judicial skepticism of use of such evidence has faded over last 4 years

- In all 33 cases studied, courts accepted the validity of behavioral genetics evidence.
- Weight of evidence determined by case facts
- Some courts require a pretrial hearing on a defendant’s genetic predisposition
- Others have made it grounds for vacating a death sentence.
CONCLUSION

- Findings debunk arguments that such evidence will be legally detrimental to defendant.
- Break-a-way trends from earlier years
  - Courts accept such evidence in most of the cases where it’s offered and no longer view it as “exotic”
  - Courts rarely question the applicability or relevance of such information.
  - Courts emphasize the importance of determining whether the evidence, when used with other factors in mitigation, can outweigh the aggravating factors that support a death sentence.
- Results indicate uses beyond mitigating evidence.