

THE IMPACT OF NEUROSCIENCE DATA IN CRIMINAL CASES: FEMALE DEFENDANTS AND THE DOUBLE-EDGED SWORD

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Data regarding gender disparities in sentencing are contradictory. We argue that one reason for the mixed results is that female defendants who commit similar crimes are treated differently depending upon whether the defense portrays them as someone with serious mental deficiencies or as a normal person who got caught up in abnormal circumstances. We suggest that judges and juries use neuroscience data to support their preconceived notions of what “bad” women are like, even as defense counsel presents these data to support claims that their clients are less culpable. Using a case study approach, we do a pair-wise comparison of four appellate decisions in which female defendants were accused of committing similar crimes under similar circumstances, but for whom data regarding brain impairments differed substantially to determine what difference the neuroscience data might make in case outcomes. This analysis provides preliminary data suggesting that neuroscience data can act to promote a defendant’s blameworthiness even as it is used to mitigate the findings.

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Are female defendants treated differently from male defendants? Data regarding gender disparities in sentencing are mixed at best (cf. Spohn & Beichner, 2000). Once arrested, women are less likely to be sentenced to

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jail or prison than men (Spohn & Beichner, 2000; Spohn & Holleran, 2000; Steffensmeier, Kramer, & Streifel, 1993; Steffensmeier, Ulmer, & Kramer, 1998), and most studies suggest that their sentences are shorter (Albonetti, 1997; Bushway & Piehl, 2001; Farnworth & Teske, 1995; Huang, Finn, Ruback, & Friedmann, 1996; Jeffries Fletcher, & Newbold, 2003; Mustard, 2001; Orsagh, 1985; Rodriguez, Curry, & Lee, 2006; Ulmer & Kramer, 1996). However, other studies suggest that women receive the same sentences as men for the same crimes committed under the same circumstances (Crew, 1991; Daly, 1996; Koepfel, 2014; Nobiling, Spohn, & DeLone, 1998; Steffensmeier et al., 1993), especially when focusing on prison terms (Freiburger & Hilinski-Rosick, 2013; see also Holleran & Spohn, 2004; Harrington & Spohn, 2007). Still other studies suggest that they receive shorter sentences for violent crimes, but longer sentences for drug offenses (Rodriguez et al., 2006; Mauer, Potler, & Wolf, 1999), yet a few have found significantly longer sentences for violent and property crimes (Myers, 2001; Steffensmeier et al., 1993).

At the same time, few studies have examined the impact gender has on the trial proceedings themselves, so what the sentencing data signify is far from clear. This article helps to remedy this lacuna. Neuroscience data have now appeared in enough criminal cases that we can draw some general conclusions regarding how judges and juries are using this material in their decisions. Here, we are interested in examining whether neuroscience data used to demonstrate brain disorder or injury has differential effects on trial outcome when the defendant is a woman.

In this article, we argue that one reason for the contradictory results is that female defendants who commit similar crimes are treated differently depending upon whether the defense portrays them as someone with serious mental deficiencies or as a normal person who got caught up in abnormal circumstances. In particular, we shall suggest that judges and juries use neuroscience data to support their preconceived notions of what sorts of women commit crimes under which circumstances, even as defense counsel presents these data to support claims that their clients are less culpable. Using a case study approach, we do a pair-wise comparison of four appellate decisions in which female defendants were accused of committing similar crimes under similar circumstances, but for whom data regarding brain impairments differed substantially, in order to determine what difference the neuroscience data might make in case outcomes. This analysis provides preliminary data suggesting that neuroscience data can act as a double-edged sword, promoting

a defendant's blameworthiness even as it is used to mitigate the findings. This preliminary finding contradicts Deborah Denno's recent analysis of appellate decisions, in which she asserts that she finds little evidence that neuroscience data promote findings of guilt (Denno, 2015).

We begin by briefly discussing confirmation bias and its potential impact judicial outcomes in criminal cases, and then turn to the short history of neuroscience data in the courtroom. Finally, we present an overview of our qualitative research.

I. THE NEW LIBERATION HYPOTHESIS: CONFORMATION AND IMPLICIT BIAS

One reason for the contradictory results regarding sentencing decisions for female defendants could be a contemporary version of Kalven and Zeisel's (1966) "liberation hypothesis." After analyzing survey data of judges regarding jury decisions, Kalven and Zeisel concluded that when cases are close on the evidence, juries are "liberated" from the dictates of the law and use extralegal factors, like criminal and gender stereotypes, in arriving at verdicts. Recent studies suggest that the interaction between "sentiment" (or bias) and legal considerations is more intricate than what Kalven and Zeisel purport (Smith & Damphousse, 1998; Spohn & Cederblom, 1991; Spohn & DeLone, 2000). In particular, it appears that decisions by both judges and juries are influenced, albeit unconsciously, by their own values, biases, and stereotypical thinking (Farrell & Givelber, 2010).

Such decisions would be clear instances of confirmation bias, the tendency to search for and interpret information in such a way that it confirms one's preconceptions (Watson, 1960; see also Kahneman, 2011; Tversky & Kahneman, 1974). Contemporary interpretations of this phenomenon suggest that it is a result of the informal heuristics we use to help make quick decisions in complex situations (Friedrich, 1993; Hergovich, Schott, & Burger, 2010; Kunda, 1999; Maccoun, 1998; Matlin, 2004; Nickerson, 1998; Oswald & Grosjean, 2004). Jon Hanson in particular has argued that these sorts of heuristics often infect our judicial system (Benforado & Hanson, 2005, 2008; Chen & Hanson, 2004; Hanson, 2012; Hanson & McCann, 2008; Hanson & Yosifin, 2003, 2004).

But we actually do more than selectively use information at our disposal. Data suggest that we will exaggerate a person's actual or potential control

over an event to justify our judgment of guilt, and we will revise the threshold for how much control is required for such a judgment (Alicke, Buckingham, Zell, & Davis, 2008; see also Alicke, 1994; Berg & Vidmar, 1975; Eftan, 1974; Lagnado & Channon, 2008; Lerner & Miller, 1978; Lerner, Miller, & Holmes, 1976; Neimeth & Sosis, 1973; Schlenker, 1980; Sigall & Ostrove, 1975; Sosis, 1974). Normally, we understand and explain others' behavior along two dimensions: the person's disposition, or personality, and the person's situation, or the surrounding context. It turns out that we are naturally strongly inclined to use dispositional explanations for behavior, even when we know that the situation was a very important factor in the response. In fact, we often assume that behavior corresponds to internal dispositions, despite strong evidence to the contrary (Gilbert & Jones, 1986; Gilbert & Malone, 1995; Jones, 1979; Jones & Harris, 1967; Jones & Nisbett, 1972; Miller, 1976; Ross, Lepper, & Hubbard, 1975; Snyder, Tanke, & Berscheid, 1977; Winter & Uleman, 1984).¹ In short: assigning the judgment of guilty could be more about the unconscious response biases of judges and jurors than it is the rational application of objective legal standards.

II. NEUROSCIENCE IN CRIMINAL CASES

Historically, courts have been wary about using expert testimony (cf. *Winnans v. N.Y. & Erie Railroad Co.*, 1859). Nonetheless, in 1881, in one of the first insanity defenses in the country, forensic psychiatrist Dr. Edward Charles Spitzka testified at Charles J. Guiteau's trial for the assassination of President Garfield that "Guiteau is not only now insane, but that he was never anything else," and he stated that the condition was due to "a congenital malformation of the brain" (cf. Rosenberg, 1995). The opposing side opined that Guiteau was only pretending to be insane for the purposes of the trial (cf. Christianson, 2002). Dr. John Gray, superintendent for the New York Utica Asylum, testified for the prosecution that Guiteau acted only out of "wounded vanity and disappointment." Bound up with this

1. In one classic experiment, for example, students were told to give a pro-Castro presentation to their classmates. Even though the students had no choice in their assignment—and other students were well aware of this fact—the audience ascribed the content of the presentation to the speakers' pro-Castro beliefs (Gilbert & Malone, 1995).

disagreement was the question of how and whether the brain abnormalities relate to criminal acts and behavior. This dialog continues today.

Nevertheless, it was not until the 1940s that modern courts begin to hear expert testimony by psychologists (*People v. Hawthorne*, 1940). *Jenkins v. United States* (1962) was the first significant case that recognized the value of clinical psychology in helping determine whether a defendant had a “mental disease or disorder.” Then *Simmons v. Mullins* (1975) extended the possibility of expert testimony to neuropsychology, when a psychologist was found competent to testify “as an expert on organic brain injury.”

Nowadays, neuroscience data are increasingly used in legal cases to support claims of decreased culpability—either supporting an NGRI defense (not guilty by reason of insanity) or as a mitigating circumstance in determining the appropriate finding or sentence (Kaufmann & Greiffenstein, 2013; Larrabee, 2012). (Denno (2015) collected 800 cases using neuroscience data over a ten-year period from 1992 to 2012; as we discuss below, we collected over 2,000 in just an 18-month period in 2014–2015.) One of the most discussed uses of neuroscience in recent times was the recent Supreme Court decision abolishing the death penalty for juvenile offenders in *Roper v. Simmons* (2005). The majority opinion relied on neuroscientific and psychological evidence regarding the developmental trajectory of adolescent brains, especially the prefrontal cortex, to conclude that adolescents are not cognitively mature enough to warrant the most severe (and final) punishment available.

Introducing neuroscience data into a trial is generally meant to help provide an organic explanation for the defendant’s behavior that might otherwise appear inexplicable. Previous analyses indicate that whether brain data will alter the outcome of a trial depends heavily on the type and severity of the crime, once a defendant is found competent to stand trial (Denno, 2015; Hardcastle, 2015). Normally, mitigating factors are weighed against aggravating factors, and brain data are no different. Therefore, one would expect brain data to be less likely to be mitigating, the more violent or predatory the crime. And in cases of severe and premeditated violence, it does not appear that brain data do much to influence the outcome at all. Previous studies suggest that approximately 9 percent of appellate cases that introduce neuroscience data are successful in changing the sentencing outcome for the defendant (Hardcastle, 2017). As Morse (2012) has argued, introducing brain data into trials appears to have little effect on how our criminal justice system actually functions.

Below we discuss the four most serious cases involving female defendants in which testimony about brain states had the possibility of changing the outcome significantly. Although some articles have appeared in law journals recently regarding the use of neuroscience in the criminal justice system in general (Catley & Claydon, 2015; Chandler, 2015; de Kogel & Westgeest, 2015; Denno, 2015), this article represents the first to examine how these data might influence juries and judges in their assessments of the facts of a crime and in their assignments of punishment for female defendants. Though this is a preliminary analysis, it does set the questions for future research in this area.

III. CASE STUDIES

This study includes appellate criminal cases with judicial decisions released from October 1, 2015, through April 30, 2016, that reference brain data in the decision.² Searches on the WestLaw database using the parameters “brain OR neuro!” resulted in well over 2,000 cataloged appellate decisions released during the study timeframe.³ Decisions that referenced only brain data from victims were eliminated, as were *pro forma* decisions that reduced or remanded sentences for minors, following the Supreme Court rulings in *Roper v. Simmons* (2005) and *Miller v. Alabama* (2012). That left 692 appellate decisions citing brain data in the judicial finding. Of those, 27 had female defendants (or 4%) and 665 were male (96%). Paralleling previous studies, we find that the brain data proffered in cases of severe and premeditated violence are received and used in exactly the same

2. This timeframe is relatively arbitrary. Although some types of scans were admitted prior to the 21st century, the full range of brain scanning technology did not appear in courts until later. We opted not to include the first cases covering the range of brain data technologies in order to give the judicial system time to settle *Daubert* (1993) and *Frye* (1923) considerations.

3. Legal databases do not contain all criminal decisions; they comprise only a subset of all appellate decisions, and not all decisions are appealed. Moreover, the decisions that get stored in a database are those with large consequences, are especially complex, or have interesting and larger judicial implications. Therefore, the cases we analyzed are necessarily only a portion of the decisions from the past 18 months that have relied on neuroscience data, and they are skewed away from smaller, lower-impact decisions. However, because brain data are costly and difficult to procure, they are only likely to be proffered as evidence in the higher-impact cases.

manner as other sorts of evidence, which is to say that they are generally not successful in mitigating the outcome of the trial.

Women account for approximately 7 percent of the total U.S. prison population;⁴ hence, women are underrepresented among those who have access to or use brain data in criminal proceedings to bolster claims of competency, mitigation, or innocence. As a result, it has been thus far impossible to run quantitative analyses testing whether neuroscience data in criminal cases are differentially successful, depending on the gender of the defendant. It has also prevented us from looking at the influence of race, ethnicity, and socioeconomic background as it interacts with gender. (Hardcastle, 2017, is the first study that examines the impact race, ethnicity, and socioeconomic status have on access to, use of, and the relative success of neuroscience data in criminal cases.)

In 18 of the cases involving female defendants, the women were convicted of a violent crime. Thirteen were convicted of murder, attempted murder, or manslaughter; three of assault; and two of burglary or armed robbery. In the remaining cases, four lost their parental rights;⁵ three involved driving under the influence; one concerned fraud; and one was a case of animal neglect and abuse. Four of the 30 female defendants (11%) were minors when the crimes they were accused of committing occurred.

In two sets of case studies below, we examine the prediction that, in cases for which mitigating evidence could make a difference in outcomes, neuroscience data can serve as a so-called double-edged sword: it can mitigate when the defendant is portrayed as a normal person caught up in abnormal circumstances, but it can aggravate when the defendant is portrayed as having brain abnormalities or deficiencies. In the four cases presented below, the primary differential between pairs of defendants is brain functionality. This research not only helps to fill a gap in the literature regarding how neuroscience data is used by juries and judges in their deliberations, but it may also provide evidence that women are treated differently in the criminal justice system depending on which stereotypes of criminal they fit into. A pair-wise comparison of four appellate decisions

4. Currently, there are 112,961 women and 1,448,564 men incarcerated in U.S. prisons.

5. We note that we can find no published cases (with or without neuroscience evidence) involving men losing their parental rights. Indeed, none of the cases involving loss of parental rights that we analyzed even mentioned the fathers of the children. Loss of parental rights being a completely female process is a subject that deserves separate treatment.

illustrates how neuroscience data can feed social stereotypes of who is blameworthy, which could then impact judicial outcomes.

The purpose in presenting these two sets of case studies is to illustrate how neuroscience data can make a difference in outcome in criminal cases in which the crimes committed are not so heinous that mitigation would be virtually impossible. We focus on female defendants because data regarding their treatment in the criminal justice system appears contradictory, and there currently are no widely accepted theoretical models to account for them.

The first set of case studies examines two women who were minors when they allegedly committed their crimes. Both were charged with first-degree murder even though neither materially participated in the killings themselves. The second set of case studies involves two women who were charged with homicides but claimed self-defense from sexual assault.

A. Minor Female Defendants

1. *People v. Nash* (2015)

Katila Ann Jean Nash was found guilty of first-degree murder with the special circumstances of burglary and sentenced to 25 years to life (*People v. Nash*, 2015). She was 15 years old at the time of the offense. Nash, her older sister Angelique Elandra Nash, and her friend David Deshawn Moses went to the home of 81-year-old Dorothy Session, whom they did not know. They had been randomly knocking on doors, asking whether “Michael” was home. When Sessions unexpectedly opened her back door, Moses asked to use her phone, and she willingly let Nash and Moses into her home, while Nash’s sister remained in the street. Moses confessed to hitting Session at least twice, who died later that evening from blunt force trauma. He explained that he had intended on stealing money in order to get food and that he had not planned on killing anyone. Nothing, however, was taken from her home. Nash was in the house when Session was being beaten, but she did not strike her. Crying, she ran to find her sister during or after the incident.

At Nash’s trial, a forensic psychologist testified that her IQ was 76, which falls in the range “between below average and mental retardation or deficiency.” He also diagnosed her with ADHD, anxiety, depression, obsessive-compulsive disorder, PTSD, and “mixed receptive expressive language disorder.” Her oral comprehension and her ability to listen and

then immediately repeat back a story was at the second grade level; her ability to recall the story the next day was at a first grade level. In addition, he indicated that she has “difficulty processing more than one stimulus at a time,” had problems maintaining a sense of self, and that her behaviors, attitudes, and plans were quite erratic. He concluded that she did not “have the reasoning ability or the words needed to understand and form or carry out plans.”

However, in contrast to the forensic psychiatrist’s testimony, the court found that there were “no factors or circumstances in mitigation,” and in addition, that the “seriousness and violent nature of the offense” made Nash an unsuitable candidate for probation. In its conclusion, the court noted that “what is very striking . . . in listening to the evidence of the case [is] that though she was aware what was happening in the home, absolutely no attempt was made to help the defenseless elderly victim. *She still does not understand . . . her actions*” (italics added).

Defense counsel requested a competency hearing for Nash, who was being tried as an adult, but a jury found her competent to stand trial. During the competency hearing, it was revealed that Nash had been a dependent on the court since she was 10 years old due to parental neglect and abuse. Her mother was an addict and had used methamphetamine when she was pregnant with Nash. One side effect of prenatal exposure to methamphetamine is abnormal brain development. Nash’s father had molested her and also abused drugs. Nash had appeared in juvenile court previously on two counts of battery. At that time, her attorney had requested a competency hearing, asserting that she was not “mentally endowed” such that she could assist in her defense. He withdrew that request after she agreed to a plea deal on misdemeanor battery. During the two years between her arrest for Session’s murder and the trial, Nash also pled guilty to felony resisting an officer. She had also been placed on administrative restriction several times for manipulating staff, profanity, and defiance while awaiting trial in juvenile hall.

On appeal, Nash argued that she was denied due process because the competency determination should have been in accordance with the standards of juvenile proceedings, which do not require a mental disease or developmental disorder in order to be found incompetent. That appeal was denied. She also claimed that 25 years to life was cruel and unusual punishment in her particular case, given her “youth, minimal culpability, mild mental retardation, psychological challenges, and . . . mental disorders.” The

court disagreed, citing the trial court's conclusion that her "conduct demonstrates a *significant danger to our community*" (italics added by the appellate court). Finally, she argued that there was no evidence for special circumstances murder. Given that she was not the actual killer, the prosecution has to show that "the aider and abettor had intent to kill or acted with reckless indifference to human life while acting as a major participant in the underlying felony" (*People v. Bustos*, 1994). The Attorney General argued that Nash showed reckless indifference by not coming to Session's aid, and that Nash fled with her sister to avoid being caught. This argument prevailed, and this appeal was denied as well.

2. *Waterman v. State* (2015)

Rachelle Waterman was convicted of criminally negligent homicide for failing to warn authorities that two of her friends were planning on killing her abusive mother (*Waterman v. State*, 2015). She was 16 years old at the time of the offense. Waterman confided to Brian Radel and Jason Arrant that her mother had beaten her, thrown her down stairs, menaced her with a knife, and threatened to sell her into slavery, and that she wished her mother dead. The two young men, in response, decided that they would kill Waterman's mother. When Arrant told Waterman what they were planning, she asked him not to do it. Her request was not communicated back to Radel, but his attempt at her mother's life failed. Waterman did not warn the authorities or tell her mother about the foiled plan. Weeks later, Waterman told her friends that her mother had beaten her again. They decided to try again, this time trying to disguise the murder as a traffic accident. When Waterman and her father were out of town, they broke into the Waterman residence, kidnapped Waterman's mother in the family van, beat her to death, and let the van go over the side of a cliff with her body in it. They then burned the van with gasoline.

As in *Nash*, Waterman was charged as an adult and indicted for first-degree murder, as well as second-degree murder and kidnapping, on the theory that she was complicit in the crime. She was also charged with criminally negligent homicide because she did not actively plot to kill her mother; rather, she placed her mother in danger by her actions (or inaction). In her defense, she claimed that she was not serious when she spoke about wanting her mother dead and she did not believe that her friends would actually kill her mother. As part of her defense, expert testimony

outlined adolescent brain development. The expert noted that because she was a teenager, her prefrontal cortex, the region responsible for long-term planning, managing risk, and controlling impulsive behavior, was not fully developed. As a result, even though she could comprehend the risks associated with behaviors, she could not fully “appreciate” the consequences of potential actions.

Unlike *Nash*, the court found that Waterman was not complicit in the murder or kidnapping. However, the jury concluded that there was indeed a substantial risk that Waterman’s mother would be killed and that Waterman did not foresee this risk. They also concluded that failing to perceive this risk constitutes a “gross deviation from the standard of care that a reasonable person would observe in the situation”—the definition of criminal negligence.

As in *Nash*, Waterman appealed the conviction because the law assumes that a “reasonable person” is a fully functioning adult. Also as in *Nash*, the appeals court ruled that minors being tried as adults are held to adult standards, not those of youthful offenders. As the appeals court explains, “The definition of criminal negligence has no subjective component. . . . The jurors found that Waterman acted with criminal negligence precisely because she did *not* appreciate the substantial and unjustifiable danger to her mother’s life” (italics in original). The definition of criminal negligence in Alaska “does not require the State to prove a defendant’s awareness of the risk.” In both cases, the defendants were found guilty explicitly because they were unable to appreciate the implications of their own behavior and the behaviors of others. However, the outcomes of the trials were radically different.

3. Discussion

In 2013, fewer than 700 female prisoners were under age 20 (less than 1%), across both state and federal prisons, and only 30 were under age 17 (Carson, 2015). And yet 11 percent of our female cohort were minors. This is grossly disproportionate to the percentage of underage women currently serving time in prison. Even if we were to assume that all the underage female offenders in prison were convicted of homicide, this would still bring the percentage of underage women up to only 4.5 percent (relative to all female homicide convicts), which is still less than half of the percentage of underage women in our study. In other words, minor female defendants

being tried as adults are more likely to have brain data introduced in trial than adult female defendants. This fact should not be terribly surprising, given that the potential time spent in prison for a homicide conviction can be disproportionately long for minors—life in prison for someone under the age of 18 would last longer than someone convicted over the age of 32, the median age of a female homicide offender in 2011 (calculated using data from the FBI Uniform Crime Report, 2011). Hence, attorneys would be *prima facie* more zealous in their defense in cases involving a minor being tried as adult.

One has to wonder how Nash could be found guilty of first-degree murder with special circumstances when no evidence was presented a trial that she knew of Moses's intent to steal money (she reported that she believed that they were looking for an acquaintance), or that anyone had any intent to kill anyone. Indeed, Session voluntarily let Nash and Moses into her home, and the evidence proffered clearly showed that Nash had difficulties responding in a planful manner to challenges. The court itself overtly recognized that Nash did not understand the implications of her behavior.

We submit that the description of Nash's life history and her mental deficiencies fits the stereotype of violent female convicts: an addicted mother, an abusive father, a ward of the state, undereducated, low IQ, defiant attitude, emotional problems, learning disabilities, and behavioral difficulties. Nash embodies the very cultural paradigm for female offenders (cf. Barnett, 2006; Chesney-Lind, 1999; Farr, 1997; Huckerby, 2003; Sarat, 1993; Wilczynski, 1991; see also Salisbury & Van Voorhis, 2009). We suggest that the proffered brain data, coupled with her tumultuous upbringing, served as a double-edged sword both in suggesting that she was not as responsible for her actions as a normal adult might be, and in giving license to the judge and jury to treat her as incorrigible and dangerous, even though she was in effect a bystander for the entire episode.

Nash was never told by Moses or her sister that knocking on doors and asking for "Michael" was a way to find out whether a house was occupied or and that they were looking for an unoccupied house in order to rob it. In contrast, Waterman was explicitly told what was planned; the perpetrators plainly and directly informed her that they intended to kill her mother. And yet, it was Nash who was found guilty of first-degree murder while Waterman was convicted of "only" negligent homicide. Leaving aside the neuroscience data, the facts of the two cases would suggest that Waterman

should be the more culpable because she had actual knowledge of the events beforehand.

However, Waterman was never diagnosed with any developmental or learning disabilities. The brain data presented at her trial portrayed her as a completely normal 16-year-old girl, who was behaving as other 16-year-old girls might. As such, she did not fit the cultural stereotype of female offenders. Instead, she was portrayed as someone who got caught up in a bizarre situation beyond any adolescent's capacity to cope. Even though in both cases, the minor defendants were clearly and unequivocally convicted on their lack of ability to appreciate their own behaviors, the outcomes of the two trials are strikingly different. One jury found cause to convict the defendant of murder, and the other did not.

The sort of neuroscience data presented at the two trials was very different. In *Nash*, the data were specific to the individual and strongly indicated a youth with significant challenges. The court judged her as a "significant danger" to society, though no evidence was presented to support this conclusion. In *Waterman*, the data were general and illustrated how typical youths normally process information about the world around them. The court did not find her to present any special danger to the community; they were silent on this issue. The two types of data support different stereotypes of young women: one as dispositionally criminal and the other as dispositionally normal. We suggest that perhaps the differences in these data, and their associations with different stereotypes, affected the outcomes of these trials.

B. Self-Defense Against Sexual Assault

1. People v. Carpenter (2015)

Phyllis Carpenter was found guilty of first-degree murder and sentenced to 50 years in prison for stabbing her neighbor Benjamin Cole to death; the Illinois Appellate Court upheld the verdict and sentence (*People v. Carpenter*, 2015). At trial, Carpenter argued that she was incapable of appreciating the criminality of her actions because she experienced a dissociative episode during the event as a result of Cole attempting to assault her sexually. In addition, Carpenter has several serious medical conditions, including orthopnea, which causes her to be short of breath when lying horizontally. She claimed that Cole knocked her down onto his bed when she came to his apartment to borrow a cigarette and then pinned her there with his

knees. She thought he was going to kill her and that she was going to die because she could not breathe. The next thing she claims to remember is getting stitches put in her hand in a doctor's office. It appears that she stabbed Cole over sixty times with three different knives in at least two locations in his apartment.

A clinical neuropsychologist testified that Carpenter's IQ was 74, between "low average and extremely low range," noting that her learning and memory were "severely impaired," and that she suffered from depression, probably due to the death of her husband. He hypothesized that her diminished capacity was not due to underlying psychological difficulties but rather cardiovascular and kidney impairments. A forensic psychiatrist learned that Carpenter had been sexually molested when she was four and that she has experienced some sort of dissociative episodes since childhood. A rebuttal forensic psychologist testified that Carpenter's childhood "dissociative" episodes were more consistent with having panic attacks. However, all the mental health experts testified that Carpenter was not malingering in her claims regarding her inability to remember the events in question.

In sentencing, the court included the "very brutal" nature of the crime as an aggravating factor. The court was also skeptical about the claim of self-defense, asking, "How many stab wounds does it take to defend yourself, and when does it cross the line into the area of rage or vengeance?" These considerations were counter-balanced by facts of Carpenter's older age, ill health, and lack of criminal background. In the end, Carpenter was still sentenced to what is likely to be the remainder of her life.

2. *People v. Duran* (2015)

In another case of putative self-defense from sexual assault, Candace Rochelle Duran was found guilty of voluntary manslaughter and sentenced to 12 years in prison for stabbing her handyman Howard Villanueva to death. Duran met Villanueva, who was homeless at the time, in a convenience center parking lot. Duran hired Villanueva to do some odd jobs in her house, and she also allowed him to live there while he was doing this work. They smoked methamphetamine together. She claims that he attacked her in her home with a knife and tried to sexually assault her. She managed to grab his knife and then stabbed him with it 12 times; he died from exsanguination within minutes. Villanueva's previous girlfriend testified that he

became violent when using methamphetamine and was abusive. He tested positive for methamphetamine after his death.

The only neuroscience data presented at Duran's trial was a description of what happens when one is under great stress. A clinical psychiatrist with expertise in the effects of stress testified for the defense that, when under intense stress, a person is likely to be driven by impulses instead of reason, behave defensively, and act to save his or her own life. Afterwards, it can be hard to remember exactly what happened and a quick return to usual activities can be normal. A staff psychologist from a nearby state hospital who also has expertise in the effects of stress testified for the prosecution. He claimed that under intense stress, people do not selectively remember parts of the episode; indeed, he indicated that a marker of malingering is claiming not to remember an event.

At sentencing, the court found several aggravating factors, including the violent conduct, great bodily harm to the victim, and use of a weapon. The only mitigating factors listed were Duran's relatively light criminal record (though the court had been informed that felony charges of robbery and receiving stolen property were pending against her) and her youth. Though the jury found Duran guilty of voluntary manslaughter as a lesser-included offense of first-degree murder, the judge sentenced her to near the maximum term allowed: 11 years for the homicide and one additional year for the use of a deadly weapon.

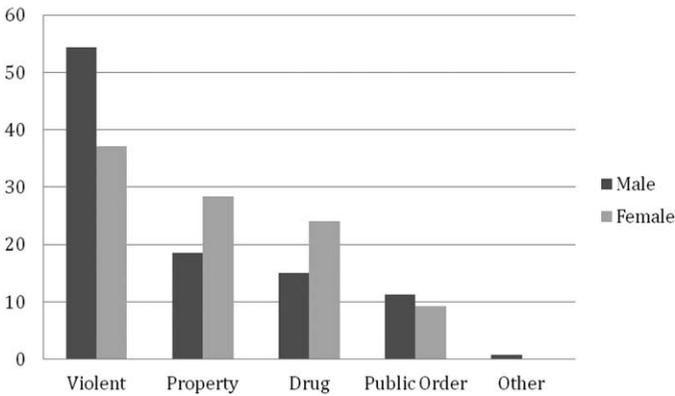
3. Discussion

Women convicted of criminal activity have the reputation of not being as violent as men; however, a closer examination of the data shows that this assumption is incorrect. Among women in state prisons at the end of 2013, over a third were serving sentences for violent crimes, whereas only a quarter were convicted of drug offences (Figure 1) (Carson, 2015).⁶ Whereas more than half of male state prisoners were convicted of violent crimes, we can see that the percentage of female prisoners convicted of murder or manslaughter is virtually identical to that of male prisoners (13.7% v. 13.9%)

6. In contrast, 59% of the female prisoners in federal prison are there for drug-related offenses, and only 4.4% committed violent offenses. However, because only 12.4% of all female prisoners are in federal prisons, their numbers are less significant (Carson, 2015).

Figure 1. Violent crimes include murder, manslaughter, rape/sexual assault, robbery, and aggravated/simple assault. Property crimes include burglary, larceny-theft, motor vehicle theft, and fraud. Drug crimes include drug possession and drug trafficking. Public order crimes include weapons charges, driving under the influence, court offenses, commercialized vice, morals, and decency offenses, and liquor law violations. Other includes juvenile offenses. Derived from Carson (2015).

Estimated percent of sentenced prisoners under state jurisdiction, by crime and gender, 2013

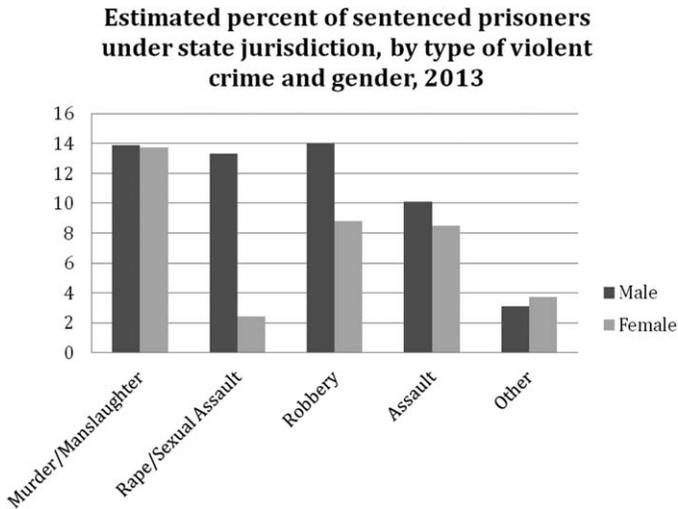


(Figure 2) (Carson, 2015).⁷ Sexual assault and rape are the difference makers between male and female violent offenders. In other words, women are as likely to commit homicide as men, though men are much more likely to commit sexual assault.

In both of homicide cases discussed above, the juries decided that the violence was too great and too prolonged to be explained solely in terms of self-defense, even though no motives other than self-defense were introduced. But Carpenter was found guilty of first-degree murder and Duran of manslaughter. In many respects, though, Carpenter was the more sympathetic defendant. Aged sixty at the time of her trial, she was a widow who lived quietly with her daughter, had no previous criminal history, and was in extremely poor physical health. Duran, in contrast, abused drugs, had

7. Though we do not have any cases that concern drug convictions among the female defendants in our database, we do note that a significantly greater percentage of women are serving time in state prisons for drug offenses than are men (24% v. 15.1%) (Carson, 2015).

Figure 2. Murder/manslaughter includes all homicide charges. Assault includes both simple and aggravated. Other includes both public order and juvenile offenses. Derived from Carson (2015).



a criminal past (and present), and obviously made poor decisions by inviting a homeless drug addict to live with her in her home.

What made the difference for the juries? We submit that, once again, neuroscience data played a key role. Carpenter was portrayed as someone with a serious mental illness, even if the experts did not agree on exactly what that was. And her illness, apparently, allowed her to stab her neighbor repeatedly and brutally without being aware of what she was doing. She, in other words, was described as being aberrant, whereas Duran was not. Duran was characterized as a normal person who happened to be in a very stressful situation. And Duran received the significantly lesser conviction and sentence. Again, we note that the neuroscience evidence used in Carpenter's case was specific to her brain, whereas that in Duran's trial were descriptions of how normal people in general react when under stress.

These cases replicate the pattern we saw with the underage female defendants. Nash was represented as someone with severe mental illness, whereas Waterman was portrayed as being a normal young woman. In both the examples of underage female defendants and defendants who claim self-defense against sexual assault, the expert testimony designed to mitigate and explain the actions of the defendants with mental illness and

brain deficiencies appears to have instead led the courts to view the defendants as more blameworthy.

CONCLUSION

It is our contention that the use of neuroscience by defense counsel for women, although comparatively less common than with men, can and does backfire. We are less confident in Denno's (2015) conclusion that neuroscience data are not used as a "double-edged sword—one that will either get defendants off the hook altogether or unfairly brand them as posing a future danger to society" (503), especially where women are concerned. Although we find no evidence that the courts *explicitly* used brain data to draw any conclusions about future dangerousness, we do find suggestions that such data can and do "[enhance] a defendant's blameworthiness" (Denno, 2015, p. 544), particularly as the data underscore the judges' or juries' underlying sentiments or biases regarding what sort of women are likely to do bad things. In other words, neuroscience data can bolster confirmation bias, which can lead to "liberation" from other legal and cognitive constraints.

We recognize that four cases cannot support a definitive conclusion that neuroscience data function as a double-edged sword for female defendants. Nonetheless, we can see hints, at least in the cases discussed here, that neuroscience data are used in the minds of judges and juries, not to mitigate or explain, but to justify what they already take to be the truth. In addition, defense attorneys who work with female defendants also see the potential for neuroscience data to cut both ways.

For example, in another case of a female minor convicted of first-degree murder, the specter of a double-edged sword regarding neuroscience data pervaded the trial, as the defense worked not to present what could be relevant brain data. Cyntoia Brown was found guilty of first-degree premeditated murder, first-degree felony murder, and especially aggravated robbery, for which she was sentenced to life plus 8 years, concurrently (*Brown v. State*, 2014). She was 16 at the time of the offense. While working as a prostitute for a man called "Cutthroat," she shot one of her clients, Johnny Allen, in the back of his head while he was lying facedown in bed. She then took two of his guns and the money from his wallet and fled in his truck. She claimed that she was afraid that Allen was lunging for a gun

when she shot him and that she had to take Allen's property to satisfy Cutthroat's demands for payment for her interlude with Allen.

Post-conviction mental health evaluations revealed that she had both high IQ and alcohol-related neurodevelopmental disorder. However, Brown's counsel had decided against pursuing a mental health defense, even though it was clear to them that Brown was suffering from some sort of disorder, because the pre-trial psychiatric evaluation Brown had was based on, in part, "bad things" about Brown's behavior, which "painted her in a very negative light," including an escape attempt from Western Mental Health Institute, drug and alcohol abuse, prostitution, a lengthy juvenile history, and a variety of disciplinary problems. As they note in appeal: "usually there is baggage with any mental health . . . findings" (*Brown v. State*, 2014, p. 3). In other words, they were concerned that presenting her brain disorders, which could help to explain her decision making under duress, would also negatively prejudice the courts, that it would suggest blameworthiness more than it would suggest mitigation.⁸ They were concerned that the evidence would feed into perceptions that Cyntoia was "bad" rather than "mad."

We suggest that brain data aggravate instead of mitigate when they support judges' and juries' biases regarding who is "bad" and who is not. We hypothesize that those with brain damage or mental illnesses are more likely to be seen as incorrigible, whereas those with normal (or normally developing) brains are more likely to be seen as victims of circumstances. We believe that these tendencies to rely on familiar tropes especially come into play when confronted with women who have done truly terrible things, who defy all social expectations regarding how women are supposed to behave under duress, and about whom there is little understanding of their actions and motives. It is easier to point to a broken brain as the culprit than to try to sort out what the implications of having a broken brain might be on their minute-by-minute decisions and actions.

Being a victim of abuse, being developmentally delayed and uneducated, being unloved and neglected (or worse) as a child, and having a mental illness are all familiar ways of explaining to ourselves why women might grow up to do bad things. At the same time, given that all these things can

8. The post-conviction court found that even if this evidence had been brought into trial, it would still have been reasonable for a jury to have found Brown guilty. An appeals court affirmed the lower court's denial of the petition for post-conviction relief.

permanently affect the brain, it can be challenging to see the women's violent behavior as anything other than an expression of their core character. Bad things were done to them, which in turn made them bad. In their crimes, they were not reacting to circumstances over which they had little control; they were displaying their underlying natures. And those with a bad character are punished more harshly than those who merely find themselves in unfair situations.

There are two popular, yet contradictory, social perspectives regarding how women in the criminal justice system are treated. On the one hand, female criminals could be viewed as "doubly deviant." According to this perspective, women are held to higher standards of behavior than men, and women who commit crimes are punished both for deviating from the basic social norms that guide everyone's actions and for violating the higher behavioral expectations for women, and therefore receive harsher sentences than men (cf. Heidensohn, 1985). On the other hand, as primary caregivers, women are seen as less dangerous and as having more social importance than men (Daly, 1987; Steffensmeier et al., 1998). According to this view, judges and juries should therefore treat them preferentially. This article examines in part which perspective appears more likely to be true.

Our preliminary answer is that it is complicated. Some women are treated more harshly, for they both deviate from the rules of society as well as are deviant themselves. These women's behaviors are illustrative of their aberrant core character. Other women are treated more gently, for they are normal people caught up in abnormal circumstances. They are simply reacting as best they can with the cognitive tools they have in a situation beyond their control. And which women are perceived as which depends upon the sorts of brains they are described as having.

These cases presented above are only suggestive, and further investigation into how evidence of brain malfunction is actually used in court cases is warranted. In particular, teasing out the differences in outcomes between data specific to an individual versus those general to a normal population would be critical next step, as would doing a careful pair-wise comparison in cases with female and male defendants to determine whether the pattern we believe we have uncovered is gender-specific. Nonetheless, we believe we have made an important first step in understanding the how nuances of female criminal defendants are perceived by judges and juries.

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