

### The Making of a Serial Killer: Nature vs Nurture

Although serial killers were defined and classified by the FBI in 1988, this type of murder still requires more research to be done to identify its causes. Therefore, the objective of this paper is to look into the various possible roots of serial killers with an emphasis on social and biological psychology. Using a plethora of literature, this paper will explore how previous researches and case studies of serial killers have supported and debunked the theories investigated. First, this paper will discuss the nurture aspect of the debate. More specifically, social psychology, with an emphasis on early childhood experiences will be discussed. Next to be discussed is biological psychology, which explores the nature side of the debate and gives importance to genetics, chromosomal abnormalities, and hereditary predispositions to murder.

Before the term “serial murder” was coined and defined by FBI agent Robert Ressler in 1988, there were no specific expression used to define scenarios in which a single offender murders multiple people (Ressler et al, 1988). Serial murderers were simply grouped into the same category as mass murderers, which is a more generic term (Ressler et al, 1988). The United States experienced a continuous rise in reported homicides from 16,606 in 1976, to 20,615 in 1986 (Ressler et al, 1988). By researching the homicides that fell within those ten years, the FBI discovered differences and variations in homicidal nature and motivations. As a result, the FBI created the first typology of multi-murders - organized and disorganized killings. In this typography, disorganized killers are viewed as impulsive, less intelligent, and have less regard for capture and incarceration (Douglas et al, 2006). On the other hand, organized killers are cunning and meticulous planners. Compared to disorganized killers, organized murderers are

more dangerous because of their ability to conceal evidence and evade capture, enabling them to kill time and time again. Using this typography, Ressler further defined three different types of multiple killings- mass, spree, and serial murder (Ressler et al, 1988).

Mass murders are events in which a minimum of three people are killed in one location at the same time (Ressler et al, 1988). Famous examples of mass murders include the Orlando Nightclub shooting in 2016 during which Omar Mateen shot and killed 43 people at the LGBTQ Pulse nightclub. Moving on to spree murders, which is defined as any occasion in which three or more people are killed within a very close timeframe. These murders can occur in different locations. One infamous spree killer is Andrew Cunanan, the man who shot and killed fashion designer Gianni Versace. Cunanan killed 5 people in a short period of just three months. The main difference between spree and serial murders is that spree killings does not include a “cooling off” period (Osborn and Salfati, 2014). Lastly, serial murder is a phenomenon in which at least three people are killed over “an unspecified time period with a noticeable cooling off” period in between each death (Osborn and Salfati, 2014). In the United States, high profile cases include John Wayne Gacy, Jeffrey Dahmer, and Ted Bundy. Bundy confessed to killing 33 women in several different states between 1974 and 1978. Throughout his years in crime and his “cooling off” periods, Bundy would revert back to his “normal” life as a law student and engage in normal relationships with those around him. Bundy even had long-term relationships with women throughout his life (Born to Kill: Ted Bundy). The most defining and noticeable characteristic of serial killers - the cooling off period - is a “state of returning to the offender’s usual way of life between homicides” (Douglas et al, 2006). The sadistic and violent cycle in which serial killers kill acts as a temporary release of pressure and stress. Similar to how addicts

use drugs to relieve pressure, cravings, and to feel better before the next fix, serial killers kill to release tension until their need for murder and control surfaces again.

Finding a reason that a person would become a serial killer requires bringing the killer's life experiences and environment into perspective and consideration. One of the most studied factor contributing to the evolution of serial murderers is the abuse they suffered during their early years (Finkelhor, 2019). According to David Finkelhor, an American sociologist specializing in child sex abuse and related cases, childhood abuse includes neglect, physical, sexual, and psychological mistreatment (Finkelhor, 2019). In a 2005 study published in the *Journal of Police and Criminal Psychology*, 26% of serial killers suffered from child-sex abuse, 36% were physically abused and 50% experienced mental abuse. A common denominator found amongst the various studies of adolescent experiences of killers is that youths who have witnessed and experienced violence and trauma in their homes and/or their communities have a "greater probability of suffering from long term mental, physical, [and] emotional trauma" (Higgs, 2012). Due to their difficult upbringings, these individuals also experience struggles that are linked with "regressive behavior, aggression, conduct issues, anxiety and depression, and attachment disorders" (Finkelhor et al., 2019). Looking at the case studies of Fred and Rose West, Richard Ramirez, Kenneth Bianchi, and other infamous serial killers reveal that each of these offenders had experienced at least some form of abuse during their childhood, which later became a major participating factor for their future life in crime. For example, Richard Ramirez was frequently beaten by his father. To avoid his father, Ramirez would often sleep in cemeteries. In addition, his early life on the dangerous streets of Los Angeles exposed him to drugs at a young age (Born to Kill: Richard Ramirez), permanently altering his perception and behavior in relation to the rest of society.

Environmental factors such as childhood abuse and repeated trauma during the early stages of life can cause a child to seek relief through animal cruelty. An example of a serial killer who was a product of his environment is Edmund Kemper. Kemper is a serial killer who killed and dismembered six college students, his mother, and his mother's friend in Santa Cruz, California. As a child, Kemper's mother, Karnell, would lock him in the basement that was infested with rats. Karnell was a neurotic and domineering alcoholic who frequently abused and humiliated Kemper throughout his life. As a child, Kemper began to exhibit antisocial behaviors and developed a fascination with animal torture. When he was 10, Kemper buried the family cat alive. After the cat died, Kemper dug it up, beheaded it, and mounted the head on a pike. The constant abuse at the hands of Clarnell left Kemper with a sense of helplessness and powerlessness. In his police interview, Kemper stated that by torturing and killing animals, he felt that he was able assert some form of control and dominance in his life (Born to Kill: Edmund Kemper). Sociologist Arnold Arluke compared the criminal records of 150 animal abusers to those of non-animal abusers. He discovered that animal abusers are five times more likely to commit violent acts against other individuals. Therefore, engaging in animal abuse at an early age can be an early indicator of future murders, assault, rape, and other violent crimes. When criminologist Eric Hickey studied 62 male serial killers, he uncovered that 30, or 48%, of these killers have been rejected by a parent or parent figure (Hickey, 2002). For many children, a rejection from a significant figure in life is a turning point in their lives as "[t]he social experiences which make people dangerous violent criminals are the significant experiences rather than the trivial ones in their lives" (Finkelhor, 2019). Many of these children do not have a healthy coping mechanism for their ordeal. Once rejected, many of these children would dive

and immerse themselves into their fantasies and self indulgences, leaving them unable to understand social norms as they go through puberty.

Criminal psychology professor Eric Hickey proposed that childhood sex abuse is linked to crime due to Trauma Control Theory. Hickey theorized that an offender's sense of shame and inadequacy due to their childhood abuse is "deeply hidden behind a facade of self-confidence" (Hickey, 2002). As a result, there is a sharp contrast between the destabilizing influences that plague these killers internally and what they portray to the public. The split between the individuals dark and light side gives way to two forms of social identity: virtual and actual (Goffman, 1959). The virtual social identity embodies the killer's self-confidence and is an aspect of the individual that is being presented to the public. On the other hand, the actual social identity is the version of self that is unmanaged and scarred by past experiences. Therefore, it represents the individual's internal self and the identity that the perpetrator keeps hidden from others (Goffman, 1959). The serial couple murderer, Fred and Rose West, brutally tortured and murdered 12 women between 1967 and 1987. As a child, Fred was sexually abused by his mother from the age of 12 onwards until adulthood (Born to Kill: Fred and Rose West). Similarly, at the age of 13, Rose began to have a sexual relationship with her father as well as her younger brothers (Born to Kill: Fred and Rose West). Building on Goffman's study in the 1950s, political scientist Stephen Holmes proposed a new theory called Fractured Identity Syndrome in 1999. As a child develops through their early adolescent years, they compartmentalize traumatic experiences, also known as 'fragmentalization', which allows for certain characteristics and personality traits of serial murderers to take form (Holmes et al, 1999). Through fragmentalization, the individual becomes deeply aware of their separate internalized thoughts, feelings, and driving forces, which creates their "actual" social identity that allows them to

rationalize and act out their serial killings years down the line (Goffman, 1959, Holmes et al, 1999).

Many of these killers who have experienced childhood trauma continuously reminisce about these ordeals later on in life. Many of them reenact their trauma on their victims as a way of gaining revenge and mastery over their own past traumas (Van der Kolk, 1989). For example, Henry Lee Lucas was dressed up as a girl by his mother, who had an obsession with daughters and did not want male offsprings. His mother would also beat him regularly, force him to watch her engage in sexual acts and relationships, and refused to give him medical attention when he suffered from a severe eye injury, which eventually resulted in him losing his eye. Lucas would go on to kill women who reminded him of his mother and sexually mutilate their corpse (Fox and Levin, 2018). Lucas embodies the mother-hate theory which proposes the possibility that serial murderers will displace their anger from the abuse inflicted upon them by their mother or a mother-figure onto their victims (Van Der Kolk, 1989). The victims of serial killers often have similar physical characteristics as the abuser in the perpetrator's life. Infamous serial killers such as Ted Bundy and Kevin Bianchi would select victims that physically resemble their mothers. After kidnapping and subduing their victims, Bundy and Bianchi would reenact the same abuse they had suffered from their mothers onto their unfortunate victims (Fox and Levin, 2018). In 2007, psychiatrist Donald T. Lunde evaluated Bianchi and concluded that until Bianchi murders his mother, his hate for her will never be satiated which is further supported by the idea that "true catharsis is only achieved once the killer kills their own mother" (Fox and Levin, 2018). Overall, a person's upbringing, environment and personal experiences play a crucial role in shaping their criminal behavior in later life.

On the 'nature' side of the argument, some argue that biological predispositions have a causal link to serial murder. In 1911, Italian criminologist Cesare Lombroso cultivated the idea of 'born criminal' through biological factors. Lombroso determined that certain physical traits are indicators of criminal behavior such as prominent chins, hawkish noses, large jaws, high cheekbones, and more. However, Lombroso's theory has since been refuted by modern criminology since atavistic features do not have ethical reasoning nor are there any substantial proofs that a person is predestined to crime based on their physical characteristics. Even though Lombroso's biological theories have since been debunked, there are other valid biological predispositions for criminal behavior. In 2000, Dr. Richard Davidson, a professor of psychiatry and psychology at the University of Wisconsin, published a scientific report that studied and compared the brain scans of over 500 individuals. The study compared the brain scans of people with a known history of violence and antisocial personality disorders to those of individuals considered to be ordinary with no criminal record or personality disorders. In his study, Dr. Davidson found that the brain scans of murderers and individuals with antisocial disorders have distinct brain activity that differs to those regular folks. The brain scans highlighted the different activity levels in the amygdala, the orbital frontal cortex, and the anterior cingulate cortex. The amygdala plays a crucial role in regulating emotions and controlling fear. Studies have found that the orbital frontal cortex controls and restrains impulsive behavior and emotional outbursts while the anterior cingulate cortex deals with conflict management. When studying these 500 brain scans, Dr. Davidson found that the brain activity within the orbitofrontal and anterior cingulate cortex of violent and antisocial individuals have low or no activity while the amygdala has the same or even higher activity level than regular individuals (Davidson, 2000). Dr. Davidson's

study supports the argument that biology has the capability to pivot an individual towards violence and crime.

Besides brain abnormalities, some nature theorists also believe that the nervous system can contribute to criminal activities down the line. The nervous system is important in that it is responsible for neurotransmitters such as dopamine, serotonin, and testosterone to perform their obligated tasks. Studies have shown that low serotonin in conjunction with high testosterone levels correlates with aggression and sadistic behavior (Society For Neuroscience, 2007). Furthermore, low serotonin levels are linked to “impulsive violence and self-destructive behavior” (Society For Neuroscience, 2007). On the other hand, high synaptic serotonin activity has also been linked with aggressive behavior (Society For Neuroscience, 2007). Irregular levels in these transmitters such as surges or deficiencies are all factors that can affect behavior. In addition, when these transmitter abnormalities are coupled with monoamine oxidase A (MAO-A) abnormalities, individuals have an even greater chance of experiencing high levels of aggression and engaging in violent behavior. In his book, *The Anatomy of Violence*, British psychologist Adrian Raine explains that family genetics is a factor in the nature of a serial killer’s makeup. The gene Monoamine Oxidase A (MAO-A) is the greatest common denominator when examining a criminal’s mind (Raine, 2013). MAO-A controls the breakdown of key neurotransmitters such as dopamine, norepinephrine, and serotonin, and this gene is found in everyone. However, individuals with low MAO-A activity have been described to be three times more likely to lead a violent life in crime and be convicted by the age of 26 (Raine, 2013). Since the amount of MAO-A gene present within an individual is biologically determined, it can be assumed that serial murder and violence are predetermined destiny of certain individuals.



Serial killers have fascinated crime enthusiasts, ordinary folks, and professionals alike. Following the nature vs debate, the possible contributing components to the making of serial killers can take the forms of biological and social psychological factors. Using an abundance of literature that meticulously brings to light the determinants of criminal behavior and serial killing, it can be assumed that some serial killers are a product of their environment while others are simply “born to kill”.

## Annotated Bibliography:

Arndt, W.B., Hietpas, T. & Kim, J. Critical characteristics of male serial murderers. *Am J Crim Just* 29, 117–131 (2004). <https://doi.org/10.1007/BF02885707>

There are multiple factors that determine why a serial killer becomes who they are. When studying these factors that contribute to the making of serial killers, especially when it concerns sex abuse endured during the early life period, the trauma-control model becomes a useful conceptual framework. In this study, William B. Arndt, Tammy Hietpas, and Juhu Kim examine male serial killers. They put the killers' life under the microscope to bring to light the killer's characteristics such as body count, ethnicity, and age. In addition, this study also examines the modus operandi of these killers and their careers in crime. Furthermore, the victim type is also studied to determine why killers targeted these people. Lastly, this study ties together all of these elements to bring to life a full picture of a typical male serial killer.

Davidson, R., "Brain Study Sheds Light On Impulsive Violence." ScienceDaily. ScienceDaily, University Of Wisconsin-Madison. 15 August 2000.  
<[www.sciencedaily.com/releases/2000/08/000814021300.htm](http://www.sciencedaily.com/releases/2000/08/000814021300.htm)>.

In 2000, Dr. Richard Davidson at the University of Wisconsin-Madison studied the brain scans of 500 individuals. These individuals had a history of violence and crime involvement. Dr. Davidson examined these brain scans and compared them to the brain scans of ordinary, nonviolent people and noticed a significant difference between the two. The human brain has "natural checks and balances" that regular emotions, control over impulses, conflict regulations, fear, and more. Out of these 500 people, Dr. Davidson and his researchers discovered abnormal brain activity in that these individuals have difficulties regulating their emotions. Areas of interest include the prefrontal cortex, amygdala, the orbital frontex, and the anterior cingulate cortex. All of these sections of the brain play an important role in regulating emotions such as anger and impulse control.

Douglas, J. E., Burgess, A. W., Burgess, A. G., & Ressler, R. K. (2006). *Crime classification manual. A standard system for investigating and classifying violent crimes*. Hoboken: John Wiley & Sons.

Before the 1980s, there were no differentiation between murderers that had more than three victims. They were simply grouped together. However, this study breaks down the different types of multi-murderers and reclassifies them into different, more granulated categories. When the FBI began to study in depth about the reported homicides in the 1970s and 80s, FBI agents noticed similarities and differences between the various modus operandi and signature of various violent murders. This study breaks down and classifies different crimes into homicide, arson, sexual assault, non-lethal, computer/cyber crimes, and internet child sex crimes. It also dives into various methods of killings that specifically breaks down multiple murders at the hands of one perpetrator into serial, mass, and spree killings. Lastly, these experts discuss issues in crime such as cases of wrongful convictions and overcoming the challenges of obtaining a confession.

Finkelhor, David et al. "Prevalence of Childhood Exposure to Violence, Crime, and Abuse: Results From the National Survey of Children's Exposure to Violence." *JAMA pediatrics* vol. 169,8 (2015): 746-54. doi:10.1001/jamapediatrics.2015.0676

This study examines the impact early childhood experiences have on later adulthood. It brings to light the importance of understanding the trend and association between violence, abuse, and crime and childhood. Therefore, the objective of this study is to provide information and current estimates of the correlation between early years and crime to healthcare professionals, parents, and policy makers. Using the juvenile victimization questionnaire, this study unveils individual youths' exposure to violence. This study has found that 37.3% of American youths are physically abused annually. In addition, 2% of girls are sexually abused. 15.2% of youths are abused in some form by their caregivers. Lastly, 5.8% of these children witness violence between important parental figures in their lives. Due to the lasting impact that traumatic childhood experiences can have on the youth, it is important to put in place monitoring and prevention efforts that stops the children from being permanently damaged by the abuse they endured.

Fox, James A., and Levin, J. *Extreme Killing: Understanding Serial and Mass Murder*. 4th ed. 2018

In their book, *Extreme Killing: Understanding Serial and Mass Murder*, authors James Fox and Jack Levin discuss the makings of violent crime. This book gives the reader a comprehensive review of multiple homicide cases, including case studies of infamous serial killers. Through these case studies of known criminals, the reader maintains an analysis the criminals' early childhood experiences and how those experiences may have a correlation with the degree of violence and deprivation with the killers' future murders.

Goffman, E. (1959). *The presentation of self in everyday life*.  
[https://monoskop.org/images/1/19/Goffman\\_Erving\\_The\\_Presentation\\_of\\_Self\\_in\\_Everyday\\_Life.pdf](https://monoskop.org/images/1/19/Goffman_Erving_The_Presentation_of_Self_in_Everyday_Life.pdf).

Goffman conducted this study back in the 1950s. He suggested that there is a sharp contrast between the killers' internal self and their external self. The internal self is a result of early childhood experiences in which the killer, in his/her youth, compartmentalizes the trauma they suffered. As a result, their internal self is their true self because it is plagued by the abuse and other ordeals they have to endure growing up. On the other hand, the presentation of self that the killer portrays to others is the socially-acceptable side. When serial killers commit murder, they are primarily acting on their internal self and satisfying their internal desires.

Hickey, E. (2002). *Serial murderers and their victims*. 3rd ed. California: Wadsworth Group

Hickey's trauma-control model is a framework for understanding the violence of serial killers. The degree of violence may be fueled by various factors that ranges from early childhood range, drug abuse, and pornography. Hickey's model reinforces the important role that "routine trauma" has on the self-perpetuating serial killing cycle. Hickey analyzes the personal histories of various killers and addresses the increasing number of reported homicides in the United

States. In addition, Hickey interviews those with first hand insight into the mind and life of a serial killer such as spouses, lovers, friends, and ex-partners. In addition, Hickey also communicates with the victim's family to gain their perspective. He also discusses the role of law enforcement and the criminal justice system in response to the serial murderers.

Higgs, T. (2012). Jeffrey Dahmer: Psychopath and Neglect. ePublications at Regis University. <https://epublications.regis.edu/cgi/viewcontent.cgi?article=1240&context=theses>

The purpose of this study is to examine in close detail the life of Jeffrey Dahmer, one of the most infamous serial killers in the United States. This study touches upon Dahmer's childhood neglect, drug/alcohol abuse, and Dahmer's fascination with death. The framework of this study is to determine the impact of early childhood experiences and Dahmer's obsession with death to determine the long term impact these experiences had on Dahmer. This study touches upon social learning theory to examine how childhood neglect and abuse are linked with Dahmer's later life in crime as a sexual serial killer. This study gives importance to childhood development.

Holmes, Stephen & TEWKSBURY, RICHARD & Holmes, Ronald. (1999). Fractured Identity Syndrome A New Theory of Serial Murder. *Journal of Contemporary Criminal Justice*. 15. 262-272. 10.1177/1043986299015003004.

Stephen Holmes and his colleagues study the multiple identities of serial killers. Since the 1950s, there has been research done to determine that serial killers have two sides - an internal and an external side. In this study, Holmes and other researchers take an indepth look at how the internal facade of a serial killer takes shape. More specifically, they introduce the Fracture Identity Syndrome which is a theory that suggests serial killers have the ability to compartmentalize their early childhood experiences and trauma and keep these ordeals separate from the facade they portray to the public. By being able to fragmentalize their identity, serial killers can act on their depraved internal desires and motivations without problems while also keeping their outer public identity intact.

Osborne, J. R., & Salfati, C. G. (2015). Re-conceptualizing "cooling-off periods" in serial homicide. *Homicide Studies: An Interdisciplinary & International Journal*, 19(2), 188–205. <https://doi.org/10.1177/1088767914526716>

In this study, Osborn and Salfati puts into perspective the importance and noticeable characteristics of serial killers that sets them apart from other mass murderers. In the 1980s, the FBI categorized mass murderers into three classes: mass, spree, and serial. Mass and spree killings occur when the deaths of three or more people appear within a close time frame to one another. However, serial killers kill, rest, then kill again. They have a "cooling off" period during which these killers will return back to their normal lives and engage in normalistic relationships. This makes serial homicides incredibly dangerous and difficult to solve because serial killers are meticulous planners and can blend in with the rest of society. In addition, this study clinically studies the serial killer's absence of emotion when they commit thee murders. Factors such as victim selection, the perpetrator's social involvement, and more are all put into perspective.

Raine, Adrian. *The Anatomy of Violence : The Biological Roots of Crime*. New York :Pantheon Books, 2013.

In his book, *The Anatomy of Violence*, author Adrian Raine examines the biological predeterminants that drive an individual to kill. Raine established neurocriminology which is a new field in criminology that examines how neuroscience technology can be applied to determine an individual's predisposition to violence and crime. By dissecting the importance of the MAO-A gene in individuals, Raine determines that MAO-A abnormality directly affects neurotransmitters such as dopamine, serotonin, norepinephrine, etc. All of these neurotransmitters play a crucial role in behavior.

Ressler, R., Burgess, A., Douglas, J. and Luke, J. (1988). *Sexual Homicide: Patterns and Motives* New York N.Y.: The Free Press.

FBI agent Robert Ressler and his colleagues made significant advances and contributions in the field of forensics and crime during the 1980s. Ressler coined and defined the term “serial murder” by examining the various multi-homicides and determining their nature and modus operandi. He first focuses on the broad spectrum of killers before narrowing his focus. This review uses FBI profiling, usage of physical and emotional weapons, case studies and more to break down the study of serial killers into more digestible pieces of information.

Society For Neuroscience. "Brain Chemicals Involved In Aggression Identified: May Lead To New Treatments." ScienceDaily. ScienceDaily, 7 November 2007.  
<[www.sciencedaily.com/releases/2007/11/071106122309.htm](http://www.sciencedaily.com/releases/2007/11/071106122309.htm)>.

In this study done by the Society for Neuroscience in 2007, scientists dissect and analyze the role neurotransmitters play in aggressive behavior. Neurotransmitters are chemical messages that are released at the end of a nerve branch that is passed on through synapses onto the next nerve branch. Studies have found that abnormal amounts of these neurotransmitters (too much and/or too little) all can affect in regulating emotions such as anger and aggression. For example, low concentrations of serotonin have been shown to be a predictor of aggression. This type of aggression is more intense than every-day forms of normal aggressive behavior that is crucial for survival. Instead, abnormalities in these neurotransmitters are related to pathological, more violent forms of anger. This research studies the biological factors that contribute to an individual's response to anger and other impulsive behaviors.

Van Der Kolk, B A. “The compulsion to repeat the trauma. Re-enactment, revictimization, and masochism.” *The Psychiatric clinics of North America* vol. 12,2 (1989): 389-411.

Many serial killers have experienced trauma and abuse during their childhood. As a result, they grow up to become adults plagued by their past experiences. As they think about their ordeal, oftentimes, these killers will reenact their past experiences with abuse and trauma onto their own victims. Van Der Kolk uses case studies of Henry Lee Lucas who was a serial killer that killed his abuser, his mother, and other women. In addition, other serial killers who

had been physically, sexually, and/or emotionally abused by their mother has a victim selection criteria in that they will only choose women that fit the physical resemblance of their mother. Van Der Kolk touches upon the killers' impulse and need to repeat the trauma they suffered on their victims as a way to gain control and take revenge. As a child, these killers felt powerless and helpless. Therefore, they reach true catharsis when they, in their own minds, believe that they are finally taking control of their lives and controlling others.

Additional Resources:

Born to Kill Docuseries