Is Criminality Caused by Environmental or Biological Factors?

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Abstract

Criminality involves engaging in behavior that contradicts criminal law. This behavior is a global problem that affects many of us in our lifetime. Criminality can be combated through the appropriate understanding of the underlying causes of such behaviors. As such, this paper explores the different biological and environmental explanations of criminal behavior. In this paper, I argue that environmental factors are more appropriate in understanding the causes of criminal behavior. Research shows that criminal behavior is acquired through different life experiences such as abuse and trauma. I also consider claims on the effect of biological factors such as the influence of genetics and biological disorders. This paper is important because people must have the most accurate understanding of what causes criminality in our societies. I conclude my paper by suggesting that we support further research in this field in order to eradicate crime.

Keywords: Criminality, criminal behavior, environmental factors, biological factors, abuse, trauma

Is Criminality Caused by Environmental or Biological Factors?

In this paper, I argue that criminality is caused by environmental factors. Environmental factors include childhood and upbringing, traumatic experiences, abuse, and bullying whereas biological factors include genetics, hormonal imbalances, gender, and brain chemistry. Crime, as defined by Gottfredson and Hirschi, is the "acts of force or fraud undertaken in pursuit of self-interest." (Akers, 1991, p. 202). Criminality has affected our societies in many ways over the years and there have been conflicting opinions regarding its causes.

I support my position on the accuracy of environmental factors in explaining the causes of criminality, with the following three arguments. First, I explain that behavioral psychology has revealed that children learn appropriate behavior from a young age through reinforcement and imitation (Mcleod, 2016). Haapasalo and Pokela (1999) show that those who are exposed to negative child rearing practices also tend to imitate those practices onto their own future families. Second, I argue that traumatic experiences cause an increased probability in the engagement of criminal behavior. Traynham et al. (2019) found a correlation between PTSD symptomatic soldiers and their likelihood of incarceration. Third, I demonstrate how the exposure to abuse influences criminal behavior. Haapasalo and Pokela (1999) also explain that experiencing child abuse causes people to behave in antisocial ways, which contributes to criminal behavior as well.

I also acknowledge that there have been opposing arguments in this phenomenon. I consider the argument that genes play a significant role in criminal behavior. However, an article by Tabb et al. (2018) explains that there is no consistent research to support the argument of genetics being involved in criminal behavior. I also examine the argument that biological disorders, such as ADHD, are attributed with criminal behavior. In contrast, research from Cussen et al. (2011) argue that there is an environmental basis for ADHD. In addition to this argument, critics also argue that neural imbalances can cause criminality

(Ward et al., 2018). Research that explains this correlation lacks validity and reliability. Such limitations make it difficult to rely on these explanations for the most accurate explanation of criminality.

This paper is important because it helps us understand the root causes of criminality. With the knowledge of the most accurate causes of criminality, as a society we can better understand the implications of our actions. For example, parents would understand the importance of raising their children in a peaceful, nurturing home. This paper allows us to identify factors that we can experience ourselves such as abuse or trauma, and the effect this can have on our behavior. Understanding and acknowledging the responsibility we have in society will allow us to take our trauma's seriously and seek treatments for them to avoid future illegal affiliations.

Effect of Social Learning and Operant Conditioning in Childhood

From a young age, we are taught that hitting someone or being violent is inappropriate and we are punished for it. This teaching should be considered when evaluating the causing factors of criminality as it explains where inappropriate behavior in our adult life stems from. In his famous study, B.F Skinner demonstrated operant conditioning, which is the process of learning through positive or negative consequences (Mcleod, 2018). For example, when a mother tells her son to clean his room in order to receive candy, the son will learn to repeat the action (cleaning his room) to receive the reward (candy). Similarly, if the mother threatens that she will take her sons phone away if he does not clean his room, the son will learn to repeat the action to avoid the punishment. In both instances, the son will learn to repeat behavior through reinforcement.

One of the most evident ways we learn behavior is through those around us such as our parents, friends, and peers. Albert Bandura demonstrated this form of learning through his study of the bobo doll experiment (Mcleod, 2014). This experiment observed the reaction of children to a video of either a woman or a man being violent to a bobo doll. The

experimenter found that female children imitated the behavior of the female adult in the video and male children imitated behavior of the male in the video. The author explained that this result is because the female and male children were able to identify with the woman or man in the video and this made them perceive them as role models. Evidently, imitation is a form of learning that can be lethal as it shows that our role models and those who we grow up around have an inevitable effect on our subsequent behaviors.

The two approaches to learning emphasize the importance of child rearing practices. This implication suggests that parents play a significant role in the development of their child's future tendencies. Haapasalo and Pokela (1999) explore the roll of negative child rearing practices in later relationships. Using several studies, the authors note that people are more likely to imitate the behavior of their own parents. The studies explained that people who experience negative child rearing practices in their own family households, are more likely to imitate those practices onto their own families. This paper confirms the social learning theory, and we can generalize the results to criminals who are abusive offenders in concluding that their behavior is a result of their childhood experiences.

Post-Traumatic Stress Disorder (PTSD) in Criminality

Trauma has become inevitable in today's world. From mental and physical to emotional trauma, these instances can have a significant impact on our behavior. Some common forms of trauma include witnessing wars, car accidents, terrorist attacks, different forms of abuse, and sexual violence. Post-traumatic stress disorder (PTSD) is a psychiatric disorder in which those who experienced trauma also experience stress after the traumatic instance. The post-trauma symptoms include intense and disturbing thoughts, flashbacks, and nightmares ("What is PTSD?," n.d.). PTSD stems from environmental factors as it results from life experiences. Such evidence suggests that it is important to consider the role of PTSD in criminality.

Recent research has demonstrated the correlations between PTSD and criminality. Traynham et al. (2019) acknowledge that previous research already found a correlation

between PTSD and criminal behavior. The authors decided to investigate the underlying associations that drive this correlation. The paper explains that those who experience war and/or are in military service are exposed to many forms of violence and this exposure could eventually lead to trauma and PTSD. Traynham et al. collected data from 310 incarcerated U.S army men as opposed to 310 non-incarcerated men currently in service. They found that soldiers who suffer from PTSD symptoms are more likely to be incarcerated for violent crimes during their service. The results of this study are important as they provide a clear distinction between incarceration rates of those who suffer from PTSD and those who do not, causing us to conclude that PTSD contributes to potential engagement in criminal behavior.

Substance abuse and addiction are also seen as contributing factors in explaining the evolution of criminals. Generally, drug use can start as a coping mechanism to environmental stressors such as family dysfunction, poverty, mental and/or physical abuse, and trauma. With the excessive use of drugs and alcohol, people fall into the trap of substance abuse and addiction. Holloway and Bennett (2009) conducted significant research that highlighted the connection between drug and alcohol abuse and criminal offenses amongst prisoners. The authors interviewed prisoners and asked them what they thought the correlation between several listed drugs is to their reasons for serving time. During one of the interviews, a prisoner mentioned that he felt that alcohol abuse ‘fueled’ his anger and lead to his arrest on assault charges. These findings showcase the significance of drug abuse on criminal behavior and since drug abuse stems from environmental factors, the findings show an underlying effect of the environment on criminal behavior.

Exposure to Abuse in Contributing to Criminal Behavior

As we develop into adults, we are exposed to different people who contribute to our development in different ways. Unfortunately, this exposure will lead some people to experience abuse growing up. Abuse can occur in different forms such as physical, emotional, and/or verbal and can be experienced from parents, peers, family relatives and/or

strangers. The evidence would seem to suggest that some psychological disorders, which begin in childhood, have been found to cause criminality.

Antisocial Behavior

Antisocial behavior is a disorder that occurs when a person lacks a sense of empathy and moral compass. One of the problems associated with this behavior is that it is affiliated with a lack of consideration for right or wrong when making decisions. People who develop antisocial personality disorder often treat others in a harsh or violent way that will later transform into criminal behavior ("Antisocial Personality Disorder," 2019).

To demonstrate this correlation between antisocial behavior and criminality, Herrenkohl and Jung (2016) used participants from a previously conducted longitudinal study to examine how their exposure to abuse links to their later criminal behavior. Herrenkohl and Jung assessed participants on various factors such as child abuse, adolescent violence victimization, peer approval of violence, and adult intimate partner violence (IPV). The authors found that participants who experienced childhood violence were more likely to be involved in childhood crime because of the fueling of antisocial behaviors as a child. When children developed antisocial tendencies, the exposure to abuse reinforced those tendencies and even lead to them forming relationships with fellow antisocial partners and peers in adulthood. This research is significant as it explains the correlation between antisocial behaviors, which are developed from abuse in childhood, with the likelihood of engaging in criminal behavior in adulthood.

Prenatal Abuse

A child's exposure to abuse can begin from before birth to adolescence. When a woman finds out that she is pregnant, the first set of instructions that is given to her is to avoid consuming alcohol, smoking, and have a balanced diet. It has been known that not following such instructions will result in developmental as well as neurological disorders in the infant. Recent studies have shown that there is a correlation between such disorders and illegal activities in childhood and beyond.

A book chapter by Haney (2020, p. 91) examines the different consequences caused when mothers neglect care in their pregnancies. Haney argues that children are not only affected by postnatal exposure to abuse, but that prenatal abuse also influences the child's later behaviors. The author explains that when the mother is exposed to domestic abuse, this usually results in premature birth or birth complications in general. The author claims that such complications are associated with issues in development of the child, resulting in the child becoming more aggressive and higher tempered. In addition to the effect of premature birth, later research also found that compared to mothers who did not smoke during pregnancies, mother who did smoke had children who were involved in violent crimes in adulthood (Räsänen et al., 1999). As such, prenatal abuse and the mother's environment during pregnancy would appear to have a crucial role in the development of the child and their likelihood of becoming a criminal.

Are Genetics Really the Center of It All?

Many specialists have argued that at the core of many of our traits and behaviors is our genetics. Therefore, genetics are also associated with criminality because they can be the underlying driver that affects our decision making and sense of moral responsibility (Tabb et al., 2018). Although this argument is presented by specialists, there have been inconsistencies in the evidence presented.

When declaring genetics as a cause of criminality, it essentially implies the belief that there exists a single genome that is involved with crime. However, research is yet to provide evidence for this claim. Instead, specialists suggest that there exists a genetic predisposition (Bohman, 1992). This predisposition essentially implies that we have a pre-existing gene that is only activated with the presence of an environmental trigger such as trauma or abuse. This suggestion is vital in highlighting the important role of environmental factors.

In addition to the doubts surrounding genetical make up and criminality, Tabb et al. (2018) presented a paper that evaluates the correlation between genetics and moral responsibility using a meta-analysis of existing data. The authors explain that in recent years,

when genetic explanations of criminal behavior are given to judges in court, judges would be likely to reduce jail time for offenders and possibly send them to treatment. However, in a contrasting study examined in the paper, Appelbaum et al. (2015) found that there is no effect on judges' verdicts in court when presented with genetic explanations. The authors concluded that there is inconsistent research for this explanation and that generally, genetic explanations are associated with health conditions rather than moral and criminal responsibility.

The United States Courts publishes frequent reports and articles regarding criminology in the United States. In one of their recent issues, the influence of genetic factors in criminal behavior was addressed. Tehrani and Mednick (2000) evaluated existing research involving genetic factors and violent behavior. The authors explain that regardless of the evidence, which shows that there is a correlation between genetics and criminal behavior, the studies remain deterministic. Genetic determinism, as explained by Tabb et al. (2018), is the belief that genetic explanations alone determine our free will and choice. Genetic determinism is a limitation because taken alone, it shows that genetics are not enough to predict criminal behavior. Instead, we should take environmental explanations into consideration to establish a holistic approach to understanding criminality. Taken together, the limitations of this explanation make it hard to rely on genetics as an explanation for criminality.

Biological Disorders in Correlation to Criminality

In psychology, there are theories that suggest that multiple disorders stem from biological factors such as the suppression of neurotransmitters in depression. Recently, biological disorders such as Attention Deficit and Hyperactivity Disorder (ADHD) have been found to contribute to the risk of criminality. Many people believe that ADHD emerges as a result of biological issues such as premature birth, brain damage, and epilepsy ("Causes – Attention Deficit," 2020). Therefore, the biological basis of such disorders, along with its correlation to criminality, has led people to confirm that criminality is caused by biological factors.

Lundström et al. (2013) explored the correlation between developmental disorders such as ADHD, Obsessive Compulsive Disorder (OCD), and Autism Spectrum Disorder (ASD), and violent crime. Using six databases in Sweden, the authors found that in comparison to other developmental disorders patients with ADHD were more likely to commit violent crimes such as assault, murder, and child molestation.

Although many people, including professionals, believe that ADHD is caused through biological factors, research has shown this belief to be in error. As discussed in this paper, childhood experiences contribute significantly to the likelihood of becoming a criminal and family dysfunction is at the core of childhood and adolescent experiences. Accordingly, Cussen et al. (2011) studied the phenomenon of ADHD and its explanations. Contrary to common beliefs, the authors found that there is a strong correlation between family dysfunction and the development of ADHD symptoms. As family dysfunction is considered to be an environmental factor, this shows that ADHD actually has an environmentally related explanation as well. This result is significant because it showcases that there is a correlation between ADHD and criminality. Therefore, it further supports that criminality stems from underlying environmental factors.

The Effect of the Development of Neuroscience in Forensic Psychology

Neuroscience studies the brain and central nervous system, it also explores explanations of the relationship between neural processes and behaviors and emotions. Recently, many have concluded that neural imbalances can predispose individuals to become criminals. To detect neural imbalances and their correlation to behaviors, brain scanning techniques such as electroencephalography (EEG)'s and functional magnetic resonance imaging (fMRI)'s are used. Neural imbalances have been used in psychology to explain disorders, for example, serotonin and dopamine have been found to contribute to the development of depression and obsessive-compulsive disorder (OCD). Evidently, there has been an increasing interest in the effect of such neural imbalances on criminal behavior.

Neuroscientific data has proven efficient in giving information about the link between crime and neural explanations. Ward et al. (2018) explain that neuroscience can help us identify correlations between neurotransmitters, such as adrenaline, and crime. They argue that with this finding, forensic psychologists can develop well suited interventions with criminals. The authors also mention that neuroscientific evidence lacks social desirability in comparison to the general forensic psychology self-report methods. In addition, a significant example of the role of the amygdala was discussed in this paper. Through previous research, the amygdala has been found to contribute to our general feelings of empathy. The authors express that forensic psychologists can now use this neuroscientific evidence to examine whether criminals have a sense of empathy. Therefore, neuroscientific technology can help in identifying causes of criminal behavior.

In addition to the implications of neural findings, Gillespie et al. (2018) used neuroscientific methods to find correlations between neural explanations and violent offenders. Gillespie et al. categorized the offenders into either reactive or proactive subtypes. Reactive subtypes are described to have poor self-control of behavior whereas proactive offenders have a high sense of self control and show good performance on control tasks. The authors were able to find an abnormally reduced prefrontal cortex activity in reactive, as oppose to proactive offenders, on cognitive tasks that require a sense of self-regulation and control. These findings explain that there is a correlation between those who have a low sense of self control, with neuroscientific factors. This study showcases the relevance of neuroscientific evidence in determining differences between offenders.

Although neuroscientific research helps in determining some crucial factors in forensic psychology, there lies inevitable limitations of this research approach. First, there is a tendency for confirmation bias to play a role in the interpretation of results. Researchers would be tempted to draw illusory correlations between results of EEGs or fMRIs to confirm their hypothesis (Ward et al., 2018). Another limitation of neuroscientific research is that it requires excessive control to conduct the experiment. To achieve this control, the

experiments are usually conducted in a lab setting. Critics argue that this control diverts from a natural setting and could completely misled experts especially when trying to interpret neuroscientific causes of behavior (Bigenwald & Chambon, 2019). Taken together, the limitations of neuroscientific data make it difficult for us to rely on as an explanation to criminality.

Conclusion

In this paper, I argued that environmental factors play a more significant role in explaining criminal behavior than do biological factors. Imitation and reinforcement of behaviors in childhood showcase the importance of positive influences from people when growing up in preventing criminal behavior. Trauma, whether in childhood or as adults, leads people to expressing their stress in criminal-like ways. Abuse can also be a form of trauma that has a significant effect on our behavior as we develop into adults. Combined, these factors are seen to be the underlying mechanisms in developing criminal behavior.

Although genetics play a role in factors such as our traits, there is contrasting evidence that suggests that genetic explanations are difficult to correlate with criminal behavior. ADHD, which is seen by many as a biological disorder that affects the probability of becoming a criminal, has environmental factors contributing to its development in early childhood such as family dysfunction. Critics also argue that neuroscience is an emerging field, which many are interested in its relevance to explaining criminology. However, there are limitations that limit the reliability of such methods.

Criminality is an issue that affects many of us in our lifetime, whether we commit crimes or fall victim to criminals. It is crucial to understand the underlying mechanisms that drive people to such extremes. This paper not only provided important arguments for the field of forensic psychology and criminology, but also to help us better our understanding of significant societal issues. With this information, psychologists and criminologists can also establish ways such as the treatment of underlying causes like trauma and disorders, to

prevent future criminal behavior as well as providing efficient treatment for current offenders.

Together, we can lead change through the better understanding of criminality and more research studies in this matter. It is important to recognize that if we misunderstand the significant causes of criminality, it will increase criminality rates all over the world as we would not be able to prevent it. As a collective, we need to encourage and support research in this field to protect and aid ourselves and those around us. It begins with you and me.

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