

Biological and Social Factors Influence the Tendency of Serial Killers to Commit Crimes

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Abstract. There have been many criminals in human society, committing different crimes for different purposes. Their presence worries and frightens people and makes criminologists have an unusual interest in themselves. This article examines the specific causes of those areas that may induce and contribute to crime and to what extent they affect crime. Biology discusses their relationship from a physiological and pathological point of view and the relationship between biological factors and crime. Society discusses the relationship between social factors and crime from many aspects, such as social structure and education. This article does not promote social or biological determinism, preferring a holistic view of how crime occurs. At the same time, several examples will be given to illustrate whether the theory is still valid when applied to reality. After studying cases and analyzing factors, it is concluded that multidimensional factors such as hormones, brain damage, and genes lead to the possibility of a person's biological crime, and social structure, education, and other aspects determine whether a person will commit a crime.

Keywords: Criminal profile, Criminal psychology, Genetics, Social Effects.

1. Introduction

Until now, there are many famous serial killers who the people fear because of their particularity and harmfulness, and most of them have committed crimes that are not extremely cruel, such as murder, poisoning, rape, torture, etc., through crime to advocate their cognition and concepts and uphold their justice. James Brussels, a brilliant psychiatrist, discovered the characteristics of a bomb maniac who could not be detected by traditional forensic methods at the time and used the information he had and years of experience to speculate on the psychological activities of the criminal, even his clothing, which proved to be correct when the bomber was caught. Here, the work of criminal profiling officially appears in people's understanding. And this leads to a new question: what factors should profilers use to analyze and speculate on fearful, elusive criminals? How do you ensure that the trails and activities you have reasoned out are correct? Since then, crime profiles have been linked to disciplines such as psychology, biology, genetics, etc. This article will analyze how criminal behavior affects criminals through biological factors such as gender, brain damage, and genetic and social factors such as social media and the community. At the same time, for those serial killers, what kind of traces and clues will be left behind by each crime to provide evidence for people to write out the next time, place, reason, etc. to prevent better the harm caused by criminals to society.

2. Literature review

2.1 Criminal Tendency

The perpetrator is the criminal act committed by the perpetrator in violation of the provisions of the Criminal Code. It is the part of criminal law that deals with crime and lets us know what responsibility to assume. The main parts of criminology are these: (1) the study of how the criminal mind evolves into criminal behavior, in a general process: criminal consciousness - criminal motive - criminal behavior - criminal result; (2) the study of how criminal behavior is committed, from which

patterns are found and which leads to the formulation of policy on crime; and (3) the study of criminal behavior, which assists in the rehabilitation of the offender [1].

In judicial practice, after a criminal act has been characterized, the analysis and research of the criminal subject's psychology can play an important role in the conviction and sentencing and verify the legality and admissibility of objective evidence [2]. In theory, purpose crimes can be divided into positive and negative, single-purpose, and particular-purpose crimes. The purpose of the crime and the purpose of the formal crime. The criminal law should abolish the stipulation of the formal purpose of crime to avoid unnecessary differences of understanding and confusion [3].

The criminal tendencies of different criminal acts vary from person to person, leading those who have the possibility of committing crimes for various reasons to make criminal cases with different distinctions and characteristics. Serial killers are divided into several general and vague types by age, gender, family background, mental illness, social class, political leanings, ethnic culture, upbringing, childhood trauma, and whether they are cooperative crimes, and analyze the characteristics of criminals in the above aspects according to the case, and how such characteristics affect the criminals' modus operandi and criminal choices, and what traces are left for police investigation.

Serial killers do not appear as well as other types of criminals, but they cause far more harm and social panic than all other criminals. Therefore, if such criminals can be traced and even prevented from committing crimes through the scientific and technological means and empirical knowledge currently available, it will protect the people's personal safety and maintain social stability.

2.1.1 The Role of Language, Emotional Factors, Motivational Conflicts, and Psychological Defense Mechanisms.

Language can convey information but also has suggestive effects, and negative language can be involved in other factors, which may lead to negative suggestions for people with personality disorders. Studies have shown that people with solid self-suggestion are readily receptive to the adverse effects of language and are easily affected by the emotions of others or have fantasies, memory misconstruction, fiction, and so on.

Secondly, emotional factors are also called tension states, and negative emotions such as anger, hatred, sorrow, anxiety, and pain may occur along with the tension state. People with personality disorders will commit crimes stimulated by this negative emotion.

Third, motivational conflict refers to the psychological phenomenon of motivational conflict formed when an individual's purposeful activities are interfered with by several goals and cannot be achieved or fully. At this time, the personality disorder feels irritable, restless, and painful due to the influence of this psychology, prompting it to have the impulse to commit a crime.

Finally, the psychological defense mechanism is mainly a mental activity that restores and stabilizes emotions through inner activities, and the effect can be divided into positive and negative aspects. When people with personality disorders do not use it properly, they will escape from reality.

2.2 Biological Factor

2.2.1 Genetic Heredity

Genetic factors that affect crime mainly play a potential, material role. Like chromosomal abnormalities, ordinary people have 46 chromosomes, including 44 autosomal and 2 sex chromosomes, that is, female XX and male XY. Chromosomal abnormalities usually refer to sex chromosomal abnormalities, i.e., XYY or XXY (the latest scientific research has found other types of sex chromosomal abnormalities). XYY sex chromosomes are super-male; such people can not adapt to the living, working, and learning environment provided by society for ordinary people; they are aggressive, and the skin is nodules. British scholar Patricia A. A series of comparative studies conducted by Jacobs and colleagues from the late 1950s to the late 1960s found that XYY or XXY men were prone to emotional restlessness, intellectual difficulty in controlling, aggressiveness, and other psychological characteristics, which made them prone to violent crimes and sexual crimes, and the first time they committed crimes was early.

People with the MAOA-L genotype can be emotionally disturbed and attack others. Brain imaging studies have shown that the MAOA-L genotype influences aggressive behavior by influencing neural circuits that control emotional arousal, emotion regulation, and impulse control. In addition, the MAOA-L gene secretes a chemical in the brain that promotes violent behavior. Its impact may be even more significant when this gene is passed on to the next generation. Kevin View, a criminologist involved in the study, said: "If the biological parents have a criminal history, their children may go down the criminal path even after they are adopted."

In a murder case in 2009, Italian courts accepted evidence of genetic sequencing for the first time, and prisoners were given reduced sentences for possessing the MAOA-L gene, According to Nature. In August 2011, Italian courts again accepted brain scans and genetic sequencing evidence to commute the killer's sentence.

Mutations in the HTR2B gene prevent the average production of this receptor and directly lead to the depletion of serotonin in the brain's echo nucleus, making the brain unable to function correctly in terms of constraints and expected behavioral consequences.

2.2.2 Brian Lesions

Brain lesions can also trigger crime. When the frontal cortex is damaged, people produce more negative emotions, which can trigger crime. In addition, the amygdala, which also assists in producing emotions, is thought to be involved in aggression and crime. Scientific studies have found that the amygdala is less responsive to emotions for those who are highly aggressive. Scientists, therefore, believe that damage to the amygdala is likely to cause humans to be unable to perceive the emotions of others, thus making them 'callous.'

2.2.3 Hormone

Male androgens are mainly aggression, violence, attacks on relationships and defense of territory, and competition for mates and food [4, 5]. Studies have shown that most aggressive behavior in female prisoners occurs before menstruation and is often associated with property-based, violent, and sexual offenses [6]. Children: 1. dopamine 2. norepinephrine 3. 5-hydroxytryptamine 4. adrenocorticotrophic hormone 5. glucocorticoids [7]. Hormone levels are strongly associated with aggression, especially during adolescence and youth [8].

2.3 Society Factors

2.3.1 Education Level

There are significant differences in the types of crime committed by people with different levels of education. Offenders with lower levels of education are more likely to commit violent crimes such as nuisance-type, intentional injury, theft, and robbery. In comparison, offenders with higher levels of education, such as bachelor's degrees and above, are more likely to engage in crimes of authority, political and high-tech crimes. Educational attainment is also an essential factor affecting the level of punishment for crime. Using dichotomous logistic regression analysis, the article shows that the probability of receiving heavy punishment decreases for offenders with junior high school education or higher compared to those with illiteracy, semi-literacy, and primary school education [8].

2.3.2 Society Classes

Class society is rooted in the unequal possession of the means of production by different classes, with different social classes occupying different social resources. On a day-to-day basis, we find that some people have rapidly taken possession of more resources through various legal and illegal means. Accordingly, their discourse has increased, their status has improved, and they have become the "powerful class." Along with becoming a "strong class" in some classes, other classes have fewer resources to allocate and correspondingly less voice and control over their daily lives, becoming a "weak class" in society. For example, unemployed urban workers and peasants have paid almost everything for the costs of industrialization in society. The Gini coefficient is a standard international expression for the gap between the rich and the poor. The larger its value, the greater the income

differential between the country's powerful and disadvantaged sectors is symbolized. Measured using the Gini coefficient, the gap is not only reflected in income and wealth holdings but also in political, educational, cultural, recreational, ecological, and environmental conditions.

There are also strong contrasts in education, culture, recreation, ecology, and quality of life. The income gap is a phenomenon and result of the inevitable specialization of work and the laws of the market; it is positively correlated with the level of social development, and the desire of low-income groups for affluence and a voice, in the hope that by improving their economic status and thus their social status, it will contribute to the maintenance of the existing social order and the improvement of the level of social development." As can be seen, it leads to competition for jobs, promoting social development. The change of class leads to a reorganization of all aspects of social life and, thus, to the spontaneous formation of interest groups in society. These interest groups have different incomes, voices, lifestyles, ideological tendencies, and interests and form groups or quasi-groups. As the Western scholar S. Huntington put it: "Modernisation means that all groups, whether new class or old aristocracy, up-to-date in their thinking or conservative, are increasingly conscious of themselves as groups, of their interests and rights about other groups." Some groups exclude others through procedures or normative systems that restrict their access to social resources and opportunities within their group, thus forcing the excluded groups to react violently and create conflicts between different groups. What are the consequences of interests generating conflict and excessive income disparities among people? Historical experience shows that it can lead to social instability. The unequal distribution of wealth and social instability is, in fact, twins. For the leading classes, they generate political and social demands commensurate with their economic income, demanding more means of production and values in their favor, thus causing social change; for the disadvantaged groups in a socially unprivileged position, they feel unfair, have doubts about social justice, cut themselves off from society and develop a mentality of revenge against society. Whether the distribution of resources is reasonable is highly topical and a sensitive issue that directly affects the crime rate of members of society, the smoothness of social communication, and the stability of government governance. Excessive income disparity can seriously lead to distrust of the government and society, especially among those with low incomes or physical disabilities, thus contributing to problems of rebellion against limited distribution and retaliation against society.

Income levels are positively correlated with social status, which affects our self-perception and the evaluation of others. Usually, people with highly high-income levels are successful in the secular sense. In terms of perceptions of social cruelty, at heart, the disadvantaged often compare themselves horizontally with groups with high incomes and thus become psychologically unbalanced, which is a harsh truth for them. They are highly likely to choose to retaliate against society. For those who have lost their jobs, it is difficult for them to find a new job. Still, the sharp contrast between their previously smooth life and their current situation of being unemployed and the comments made by others about them can also cause them to complain.

By projecting their personal experiences onto social reality, they become strongly dissatisfied with various social injustices and can quickly resort to extremes that affect the stability of society [9].

2.3.3 Social Psychology

Relative deprivation theory and relative deprivation theory are prevalent in Western sociology of crime, and they explain it well. Relative deprivation theory holds that deprivation is relative, not in the true sense of deprivation, but in the sense that people are dissatisfied and frustrated with their situation. When the poor, who know the living conditions of the rich, cannot legitimately access the same material pleasures as the rich, they feel angry at the disparities and inequalities in society, at the distribution system, and ultimately want to get something for nothing. Relative poverty theory argues that 'relative poverty is income too low to sustain daily life, but rather the fallout from climbing. This phenomenon does not occur in impoverished countries but in societies that are more economically developed and have more material wealth.

In societies with more developed economies and more incredible material wealth. Merton also argues that individuals feel deprived when they compare their situation with those in the reference group and find themselves at a disadvantage. This deprivation is relative because people are not compared to a fixed standard but a variable. It is, in fact, a feeling of imbalance arising from a growing dissatisfaction with the polarisation of society without any value judgment. The Italian criminologist Garofalo points out that poverty is not the real cause of people's misery and that most workers suffer not from hunger but from "the inability to enjoy those pleasures that are favored by fate."

Social response: The social response to crime can be formal, in the form of legal sanctions imposed by the state judiciary, or informal, in the form of pressure from society. There is no doubt that the state is most effective in fighting crime through violent authorities and is best able to impose just punishment on offenders. But we cannot ignore the harshness of the penalties. As Beccaria points out, harsh penalties result in the more severe the punishment, the more serious the crime committed for it. Moreover, harsh policies could expose ordinary people to discrimination later in life. There is also the scorn of their families; they will be condemned by society, encounter more significant difficulties than ordinary people, and the difficulty of finding work in dating will increase dramatically. Recidivism is, therefore, inevitable. As the 'labeling theory' suggests, society's reaction to criminal behavior will influence the subsequent attitudes and behavior of the offender. Once an offender is labeled as a "criminal," they are stigmatized, thus conforming to society's evaluation and going down the path of crime; society's reaction leads to crime, not crime that leads to society's reaction. This theory may seem too extreme, but it is based on much empirical research and should be noted [10].

3. Conclusion

Males tend to commit violent crimes, females are more likely to commit drug and property crimes, people with brain damage commit crimes due to a weak perception of emotions, and genes can influence the probability of committing crimes to some extent. Gender differences in the types of crime due to hormonal influences, low moral awareness due to weak emotional awareness due to brain damage, and specific genes can lead to an increased probability of crime. The level of education received can affect people's moral perceptions and, therefore, crime. Inequalities in society can lead to cognitive biases and extreme thinking that can lead to crime. Biological and social factors that affect the offender to varying degrees will reveal the offender's criminal tendencies, *modus operandi*, and preferences in a particular way. At the same time, the uniqueness and uniqueness of the clues and traces left at the scene allow for a simple inference of the offender's type and personality, which allows for specific criminal profiling.

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