

The Psychological Foundations of Criminal Behaviour

Prof. Dr. Pamir DİRİL¹, Özlem Küküçü²

¹St. Clements University/Department of Psychology Lecturer/U.K

ORCID ID: 0000-0001-8913-343X

²St. Clements University/Psychology Department Master's Student

ORCID ID: 0009-0002-7111-5270

ABSTRACT: Criminal behaviour is too complex to be explained solely by individual choices, and numerous psychological, biological, and social factors play a role in its emergence. This study aims to understand the psychological foundations of criminal behaviour and addresses the topic within the framework of three fundamental scientific causes widely accepted in the literature. Firstly, biological factors, particularly genetic predispositions and neurological processes, are examined in terms of their impact on an individual's aggression and impulse control. Secondly, the contribution of individual psychological factors, such as personality traits, mental disorders, and cognitive distortions, to criminal behaviour is evaluated. Finally, the role of family structure, social environment, socio-economic conditions, and social learning processes in the development of criminal behaviour is addressed. In this context, the study aims to demonstrate that criminal behaviour cannot be reduced to a single cause but rather exhibits a multidimensional and interactive structure. It is believed that the findings will contribute to psychologically based approaches in crime prevention and rehabilitation processes.

KEYWORDS: Individual preferences, psychological, biological and social responses, genetic predispositions and neurological processes, aggression and impulse control, environmental factors

INTRODUCTION

Crime has been a significant phenomenon throughout history, threatening social order and profoundly affecting interpersonal relationships. From a legal perspective, crime is defined as behaviour prohibited by law and subject to punishment; from a psychological perspective, crime is considered a complex form of behaviour resulting from the interaction between an individual's internal processes and environmental conditions. Therefore, evaluating criminal behaviour solely within the framework of legal norms is insufficient for understanding the underlying causes of the phenomenon. Psychological approaches play an important role in the processes of preventing and reducing crime and reintegrating offenders into society. The causes of criminal behaviour are not one-dimensional. An individual's biological structure, personality traits, cognitive processes, emotional state and social environment can play a decisive role in the emergence of criminal behaviour. In psychological literature, criminal behaviour is considered a multidimensional phenomenon that develops as a result of the interaction between individual factors and environmental influences. In this context, crime has a structure that is too complex to be explained solely by "malicious intent" or "moral weakness".

Biological approaches highlight the influence of genetic predispositions, brain structure, and neurochemical processes in the emergence of criminal behaviour. It is suggested that dysfunctions in brain regions associated with impulse control, aggression, and risk-taking behaviour may increase criminal behaviour. However, biological factors alone are not decisive; these factors often contribute to criminal behaviour in conjunction with environmental and psychological factors.

Psychological factors, meanwhile, occupy a central position in understanding criminal behaviour. Personality disorders, lack of empathy, low self-control, cognitive distortions, and past traumatic experiences are among the important factors influencing criminal behaviour. In particular, antisocial personality traits, aggressive tendencies, and deficiencies in moral reasoning are frequently associated with criminal behaviour. Psychodynamic, cognitive, and behavioural theories approach criminal behaviour from different angles, attempting to understand the individual's inner world. Social and environmental factors also play an important role in the formation of criminal behaviour. Family structure, experiences of neglect and abuse during childhood, socio-economic deprivation, peer influence, and social environments where crime is normalised can increase an individual's risk of turning to crime. According to social learning theory, individuals can learn criminal behaviour by observing models in their environment and reinforce these behaviours. This situation also reveals that crime is a social problem beyond being an individual choice.

This study aims to understand the psychological foundations of criminal behaviour and addresses the topic within the framework of three fundamental scientific causes widely accepted in the literature. Biological, psychological, and social factors will be examined under

The Psychological Foundations of Criminal Behaviour

separate headings to reveal the multidimensional structure of criminal behaviour. The main objective of the study is to evaluate the causes of criminal behaviour from a holistic perspective and to demonstrate how this information can contribute to crime prevention, intervention and rehabilitation processes.

BIOLOGICAL FACTORS AND CRIMINAL BEHAVIOUR

One approach to explaining the psychological foundations of criminal behaviour is the biological perspective. This approach argues that genetic structure, brain functions, and neurochemical processes may influence an individual's tendency towards criminal behaviour. Although biological factors alone are not sufficient to explain criminal behaviour, they form an important basis that increases the individual's sensitivity to other psychological and environmental factors. Establishing a solid foundation for understanding the impact of biological factors on criminal behaviour is truly a very important goal and is also of great significance in terms of the general health and safety of society. Today, the negative effects of criminal behaviour have far-reaching repercussions not only on individuals but also on the social structure. In this context, it is extremely important to comprehensively evaluate the biological elements that shape human behaviour, together with social and environmental factors. Biological factors encompass various complex components, including genetic makeup, neurobiological structures, and hormones, and these components play an extremely important role in determining an individual's behavioural tendencies.

Numerous studies and research have been conducted on the extent to which genetic factors influence the development of criminal behaviour, and these studies have provided important data with their findings. Current research indicates that criminal tendencies cannot be explained solely by environmental factors; biological elements also significantly influence individuals' behavioural characteristics. At this point, it is suggested that, in addition to genetic predispositions, individuals' brain structure and neurochemical processes may also be decisive in the formation of criminal behaviour. To better understand the complex interactions between biological and environmental factors, individuals must be systematically studied throughout their lifelong development processes. Therefore, the development of a holistic assessment model that integrates both biological and psychosocial elements can form the basis for new, effective, and sustainable approaches to better understanding and preventing criminal behaviour. Systematically revealing the role of biological factors in criminal behaviour is critical for future steps in this area. The following sections will examine these factors in detail. Such in-depth analysis will help to better understand the complex mechanisms underlying criminal behaviour and will also be useful in developing relevant intervention strategies. Therefore, gaining more knowledge about the dynamic interaction of biological and environmental factors will play an important role in creating a healthier social structure by contributing to both crime prevention and the integration of individuals into society. Furthermore, it is thought that disseminating this type of understanding at the societal level will help to clarify the origins of criminal behaviour. Developing an in-depth understanding of the interaction between biological and psychosocial factors will be a critical step in investigating the origins of criminal behaviour and increasing individuals' social participation. In this context, conducting scientific research from an interdisciplinary perspective and in a comprehensive manner will create a great opportunity to translate the information obtained into practice.

Furthermore, studies conducted in this field are expected to play a critical role in developing new policies aimed at improving individuals' living standards and reducing crime rates. As society's sensitivity in this area increases, a better understanding of biological factors and their effects on individuals' behaviour will be achieved, and as a result, more effective intervention methods can be developed. Therefore, understanding the effect of biological factors on criminal behaviour can have important consequences at both the individual and societal levels. Understanding criminal behaviour is not only a matter of scientific curiosity but also carries a profound responsibility for humanity. Examining the mechanisms behind criminal behaviour will enable not only individuals who commit crimes but also the communities affected by this situation to have a better future. Therefore, studies that focus on biological factors and examine this topic in detail will not only increase theoretical knowledge but also contribute to the development of practical solutions. Nestled in the heart of this exploration lies the profound impact of understanding the roots of individual behaviour, providing hope for new beginnings beyond their pasts. This process will facilitate a major step towards enabling individuals to integrate into society in a healthier and more holistic manner, thereby ensuring a continuous and effective effort within society to prevent criminal behaviour.

GENETIC PREDISPOSITION

Genetic research indicates that aggression and antisocial behaviour may be hereditary to a certain extent. Twin and adoption studies show that tendencies towards criminal behaviour are influenced by genetic factors. Research on identical twins, in particular, has found that rates of criminal behaviour show a higher similarity compared to fraternal twins. This points to the possibility that genetic factors may play a role in criminal behaviour. However, genetic predisposition does not mean that an individual is inevitably destined to commit crimes. Genes contribute indirectly to criminal behaviour, primarily by influencing characteristics such as impulsivity, aggression, risk-taking, and stress coping capacity.

Therefore, genetic factors only become meaningful when evaluated in conjunction with environmental conditions and learning processes. The relationship between genetic factors and criminal behaviour is not only one of the cornerstones of biological approaches but has also been the subject of extensive research, with many scientists focusing on this topic. In this context, genetic predisposition plays a significant

The Psychological Foundations of Criminal Behaviour

role in individuals' tendency towards certain behaviours and offers a valuable perspective in the study of criminal behaviour. Extensive studies show that individuals with a tendency towards crime are significantly more likely to have certain genetic patterns than the general population. In particular, in-depth research conducted on genes associated with neurotransmitter systems, such as serotonin, dopamine, and MAOA genes, has revealed that these genes may influence characteristics such as impulsivity, aggression, and risk-taking in behaviour, making important contributions to the literature on this subject. Specific variants of these genes may have the potential to create a predisposition to criminal behaviour as a result of the individual's interaction with environmental factors. Furthermore, the fact that genetic predisposition is not confined to the individual but is transmitted across generations through familial inheritance and epigenetic mechanisms adds new dimensions to research in this field and is a noteworthy phenomenon. Epigenetic changes can shape the biological underpinnings associated with criminal behaviour by regulating the effect of environmental factors on gene expression. In this regard, family environment, stress factors, and life experiences are considered decisive factors in the emergence and reinforcement of genetic predisposition, helping us understand how individuals behave in different sociocultural environments.

Therefore, the interaction of genetic and epigenetic factors constitutes an important area of research in understanding the biological foundations of criminal behaviour, and data in this field, when integrated with sociocultural factors, can shed light on efforts to create a healthier social structure. Ultimately, the way genetic factors play a role in individuals' criminal tendencies is shaped by the interaction of environmental and biological factors, with a complex and multi-layered structure. These complex relationships are becoming clearer through in-depth scientific studies in this field, and such studies contribute to the development of crime prevention and intervention strategies, facilitating important steps towards achieving social peace.

BRAIN STRUCTURE AND FUNCTIONS

Neuropsychological studies have revealed meaningful relationships between criminal behaviour and specific brain regions. In particular, the prefrontal cortex, amygdala, and limbic system are among the key brain regions associated with criminal behaviour. The prefrontal cortex is responsible for higher-level cognitive functions such as decision-making, planning, impulse control, and moral judgement. It has been noted that dysfunction in this region can lead individuals to act without considering the consequences and exhibit aggressive behaviour. The amygdala plays an important role in regulating emotional responses, particularly emotions such as fear and anger. Overactive or underactive amygdala can distort an individual's perception of threat, leading to aggressive and uncontrolled behaviour. Brain imaging studies have observed structural and functional differences in these regions in individuals who have committed violent crimes.

Neurotransmitter systems in the brain may also play a role in the emergence of criminal behaviour. In particular, serotonin, dopamine, and noradrenaline levels are known to be associated with aggression and impulsivity. It has been suggested that low serotonin levels may increase aggressive behaviour by weakening impulse control. Irregularities in the dopamine system may increase reward-seeking and risk-taking behaviours, thereby strengthening criminal tendencies. These neurochemical imbalances may pave the way for criminal behaviour by affecting the individual's responses to stressful situations. Neurochemical changes, particularly those associated with substance use, can further impair an individual's decision-making ability. While biological approaches offer important insights into explaining criminal behaviour, they are also open to criticism. Reducing criminal behaviour solely to biological factors carries the risk of disregarding an individual's free will and environmental influences. The widely accepted view today is that biological factors do not directly determine criminal behaviour; rather, they shape the individual's responses to environmental conditions and psychological processes.

In this context, biological factors are considered risk-enhancing elements in the formation of criminal behaviour and are addressed alongside psychological and social factors.

PSYCHOLOGICAL (INDIVIDUAL) FACTORS AND CRIMINAL BEHAVIOUR

Psychological factors play a central role in understanding criminal behaviour. An individual's personality structure, emotional processes, cognitive functions, and mental state can play a decisive role in the emergence of criminal behaviour. Psychological approaches aim to explain the underlying causes of behaviour by addressing criminal behaviour within the framework of the individual's inner world, past experiences, and relationships with their environment. Personality traits are fundamental structures that consistently guide an individual's behaviour. Research shows a strong correlation between antisocial personality traits and criminal behaviour. Individuals with antisocial personality traits often display a lack of empathy, disregard for rules, avoidance of responsibility, and a tendency to violate the rights of others. These traits pave the way for the individual to legitimise their criminal behaviour and engage in repeated offences. Psychopathy and antisocial personality disorder are the psychopathological structures most frequently associated with criminal behaviour. In these individuals, criminal behaviour often occurs without remorse, and the consequences of the behaviour are not sufficiently evaluated. However, it should be noted that not every individual who commits a crime has a personality disorder.

Impulsivity is defined as the individual's tendency to react suddenly without considering the consequences and is one of the important psychological determinants of criminal behaviour. Impulsive individuals, especially under anger and stress, can exhibit uncontrolled behaviour, which can lead to violent crimes. Aggression, on the other hand, can manifest as a direct reflection of criminal behaviour in the form of an individual's tendency to harm themselves or others. Low self-control, in particular, is strongly associated with criminal

The Psychological Foundations of Criminal Behaviour

behaviour. Individuals with weak self-control prefer short-term gratification over long-term consequences and are more prone to violating social norms. This situation can lead to the perpetuation of criminal behaviour.

Brain structures and functions play a fundamental role in understanding the biological basis of criminal behaviour. The brain is a complex organ, and its various regions control different cognitive and emotional functions. The prefrontal cortex, in particular, is critical for decision-making, impulse control, and moral judgement. Impairments or low activity in this region may increase the likelihood of risky and aggressive behaviour. On the other hand, the amygdala stands out as an important structure in emotion processing and responding to threats. Dysfunctions in the amygdala can influence the development of aggression and antisocial behaviour. The hippocampus plays a significant role in memory and learning processes and is necessary for the proper functioning of behavioural regulators associated with criminal behaviour. Imbalances or damage to these fundamental structures of the brain can weaken an individual's capacity to control their impulses and behave appropriately in their environment. Furthermore, the brain's neurotransmitter systems, particularly serotonin and dopamine levels, play a critical role in determining behaviour. Low serotonin levels, , can contribute to increased aggression and impulsive behaviour. Various neurobiological studies focus on the biological foundations of criminal behaviour and demonstrate that impairments in the functionality of these structures increase behavioural risks. Consequently, differences in brain structures and functions constitute an important component in understanding criminal tendencies and developing strategies to prevent these behaviours. Under these conditions, carefully examining the interactions between individuals' brain structures and functions may shed new light on the prevention and understanding of criminal behaviour.

COGNITIVE PROCESSES AND COGNITIVE DISTORTIONS

Cognitive approaches explain criminal behaviour through an individual's thought patterns and perceptions. Cognitive distortions, frequently observed in individuals who commit crimes, serve to legitimise the behaviour. Thoughts such as "Everyone does it," "I was treated unfairly," or "I had no other choice" cause the individual to view their criminal behaviour as justified. Furthermore, a low level of moral reasoning can prevent individuals from clearly distinguishing between right and wrong. This is particularly influential in the increase of criminal behaviour during adolescence. The individual's normalisation of criminal behaviour paves the way for repeat offences. Certain mental disorders can indirectly increase the risk of criminal behaviour. Substance use disorders, in particular, weaken an individual's perception of reality and impulse control, paving the way for criminal behaviour. Furthermore, severe traumatic experiences, abuse and neglect suffered during childhood can negatively affect an individual's emotional regulation skills. Feelings of anger, insecurity, and worthlessness that develop as a result of traumatic experiences can make it difficult for the individual to establish healthy relationships with their environment and may cause them to use criminal behaviour as a coping mechanism. In this context, criminal behaviour can also be considered an expression of the individual's psychological injuries. Psychological factors have significant explanatory power in understanding criminal behaviour. However, these factors alone are not decisive. Current approaches emphasise the need to evaluate individual psychological characteristics in interaction with the social environment and biological predispositions. A correct understanding of psychological factors contributes to the development of effective intervention programmes in crime prevention and rehabilitation processes.

3. SOCIAL AND ENVIRONMENTAL FACTORS AND CRIMINAL BEHAVIOUR

The social and environmental conditions in which an individual finds themselves play a decisive role in the formation of criminal behaviour. From the moment they are born, individuals are shaped by their family, immediate environment, education system, and society. In this context, crime is addressed not only as an individual problem but also as a social phenomenon. Social and environmental factors can have both direct and indirect effects on an individual's tendency towards criminal behaviour. The family is the environment where the individual first socialises and learns fundamental values. Unhealthy family structures constitute a significant risk factor for criminal behaviour. Domestic violence, neglect, abuse, inconsistent discipline and inadequate parental supervision can increase the likelihood of an individual turning to crime later in life. Negative experiences during childhood, in particular, can adversely affect an individual's emotional and social development, paving the way for aggressive and maladjusted behaviour.

Parents with a criminal history or who normalise crime may cause their children to learn criminal behaviour. This situation is considered an important social mechanism explaining the intergenerational transmission of crime.

SOCIAL LEARNING AND PEER INFLUENCE

According to social learning theory, individuals learn by modelling the behaviours they observe in their environment. Criminal behaviour can also be part of this learning process. Individuals who grow up in environments where crime is prevalent may perceive criminal behaviour as normal and acceptable. The influence of peer groups plays a significant role in the increase of criminal behaviour, particularly during adolescence. Having friends who commit crimes can reinforce an individual's criminal behaviour and cause this behaviour to become persistent. Peer pressure, the need for belonging, and the desire to be accepted are effective in directing an individual towards criminal behaviour. Socioeconomic factors such as poverty, unemployment, low educational level, and social exclusion are often associated with

The Psychological Foundations of Criminal Behaviour

criminal behaviour. Economic deprivation can cause individuals to struggle to meet their basic needs and view criminal behaviour as a solution. Furthermore, socio-economic disadvantages increase an individual's stress levels, paving the way for psychological problems. Higher crime rates in areas with high levels of social inequality indicate that crime is a structural problem. In this context, crime prevention should be supported not only by individual interventions but also by social policies. The values, norms and attitudes of society towards crime directly influence an individual's behaviour. In societies where violence is legitimised, crime is tolerated or goes unpunished, criminal behaviour can become more widespread. Violent content presented through the media can also have negative effects, particularly on children and adolescents. Cultural factors have a significant impact on how individuals perceive and justify criminal behaviour. Therefore, it is crucial to develop culturally sensitive policies in the fight against crime. Social and environmental factors play a powerful role in determining the emergence of criminal behaviour. However, these factors are not independent of biological and psychological factors. Today, criminal behaviour is addressed within the framework of the interaction between individual and social factors, and a multidimensional perspective is adopted.

CONCLUSION

The role of biological factors in criminal behaviour is increasingly supported by interdisciplinary studies, and within this framework, there is growing interest in understanding the connection between biology and criminal behaviour. Various components of these factors, such as genetic predispositions, neurobiological structures, and hormonal regulation, have significant and profound effects on an individual's tendencies towards criminal behaviour. Genetic research has revealed that certain genes may be linked to criminal behaviour, but it should never be overlooked that these genes interact with environmental factors. Epigenetic studies reveal how environmental stimuli can alter gene expression and how such changes can lead to behavioural consequences. At the neurobiological level, it is clear that specific regions of the brain play a critical role in regulating behaviours such as aggression and risk-taking. In particular, an imbalance between the amygdala and the prefrontal cortex can increase criminal tendencies and affect an individual's overall behaviour patterns. Furthermore, imbalances at the neurochemical level are closely related to the regulation of neurotransmitters such as serotonin and dopamine; such changes can trigger criminal behaviour and negatively affect an individual's decision-making processes.

Hormonal factors, particularly differences in testosterone and cortisol levels, are also among the important elements that influence criminal tendencies. These biological foundations also play a decisive role in developmental processes; hormonal and neurological changes during adolescence can lead to an increase in risky behaviours and the emergence of criminal behaviour. Furthermore, biological and environmental experiences acquired in early childhood have a critical impact on shaping an individual's neurological structures and behavioural patterns. The interaction between environmental influences and biological factors is of great importance in understanding the complex nature of behaviour, and these dynamics can also facilitate the development of various intervention strategies to reduce criminal tendencies, thereby contributing to the development of healthier individuals at the societal level. Ultimately, the role of biological factors in criminal behaviour is a process involving complex interactions from both hereditary and neurobiological perspectives, and advances in these areas provide valuable insights for crime prevention and rehabilitation efforts, contributing to a better understanding of the issue. In this context, careful consideration of the ethical and political dimensions of biologically-based approaches is of critical importance in future studies and may contribute to achieving the best results in the formulation of policies to combat criminal behaviour. Criminal behaviour has a structure that is too complex and multidimensional to be considered solely as a conscious choice of the individual. Within the scope of this study, the psychological foundations of criminal behaviour were examined within the framework of biological, psychological, and social factors, and it was demonstrated that the phenomenon of crime cannot be reduced to a single cause. The findings indicate that criminal behaviour is shaped by the interaction between an individual's internal characteristics and environmental conditions. Biological factors provide a fundamental basis that increases an individual's predisposition to criminal behaviour. Genetic predispositions, brain structure, and neurochemical processes can influence impulsivity, aggression, and risk-taking behaviour. However, these factors should be considered not as elements that make criminal behaviour inevitable, but as risk-increasing variables in interaction with other factors.

Psychological factors play a central role in understanding criminal behaviour. Personality traits, impulse control, cognitive distortions, and mental disorders are among the important determinants of an individual's tendency towards criminal behaviour. In particular, antisocial personality traits, lack of empathy, and low self-control can lead to persistent criminal behaviour. In addition, traumatic experiences and mental health issues can cause individuals to use criminal behaviour as a coping mechanism. Social and environmental factors reveal the societal dimension of criminal behaviour. Family structure, childhood experiences, peer influence, socio-economic conditions, and cultural norms are among the fundamental elements that shape an individual's relationship with crime. Individuals raised in disadvantaged environments are seen to be more prone to criminal behaviour; this situation demonstrates that crime is a social problem beyond the individual.

Consequently, a holistic approach must be adopted to effectively prevent criminal behaviour and reintegrate offenders into society. Multidisciplinary intervention programmes that address biological, psychological and social factors together will yield more effective results in crime prevention and rehabilitation processes. The theoretical and applied approaches offered by the science of psychology make an important contribution to the fight against crime and aim to re-establish the balance between the individual and society.

REFERENCES

- 1) American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). American Psychiatric Publishing.
- 2) Bandura, A. (1977). Social learning theory. Prentice Hall.
- 3) Beaver, K. M., Barnes, J. C., & Boutwell, B. B. (2015). The nurture versus biosocial debate in criminology. SAGE Publications.
- 4) Caspi, A., McClay, J., Moffitt, T. E., Mill, J., Martin, J., Craig, I. W., Taylor, A., & Poulton, R. (2002). Role of genotype in the cycle of violence in maltreated children. *Science*, 297(5582), 851–854. <https://doi.org/10.1126/science.1072290>
- 5) Gottfredson, M. R., & Hirschi, T. (1990). A general theory of crime. Stanford University Press.
- 6) Hare, R. D. (2003). The Hare Psychopathy Checklist–Revised (2nd ed.). Multi-Health Systems.
- 7) Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behaviour: A developmental taxonomy. *Psychological Review*, 100(4), 674–701. <https://doi.org/10.1037/0033-295X.100.4.674>
- 8) Piquero, A. R., Jennings, W. G., & Barnes, J. C. (2012). Violence in criminal careers: A review of the literature from a developmental life-course perspective. *Aggression and Violent Behaviour*, 17(3), 171–179. <https://doi.org/10.1016/j.avb.2012.02.008>
- 9) Siegel, L. J. (2018). *Criminology: Theories, patterns, and typologies* (13th ed.). Cengage Learning.
- 10) Sutherland, E. H., Cressey, D. R., & Luckenbill, D. F. (1992). *Principles of criminology* (11th ed.). General Hall.
- 11) Walsh, A., & Beaver, K. M. (2009). *Biosocial criminology: New directions in theory and research*. Routledge.