

# CMY3701 essay/summary of genetic factors for 30 marks

written by

Chanell



The study-notes marketplace

Buy and sell all your summaries, notes, theses, essays, papers, cases, manuals, researches, and many more...

[www.stuvia.co.za](http://www.stuvia.co.za)

C. Deyzel

---

## Genetic factors (30 marks)

This is a summary of genetic factors, including my own examples; I used these as my own exam preparation and managed to obtain a distinction. Please do not submit this essay as an assignment, there are direct quotes from the study guide. Use these for exam revision ONLY .

C. Deyzel

---

## Genetic factors (30 marks)

### **1. Introduction**

Biosocial theories aim to explain crime and antisocial behaviour by exploring both biological factors and environmental factors. A recent interest in biological theories has developed, but these new approaches distinguish themselves from earlier approaches in a number of ways: Biosocial theorists focus on biological factors such as reproduction, genetics and the environment. They do not claim that biology is the cause of delinquency, but do believe that it shapes the development of particular traits which are more conducive to crime than others. Biosocial theorists also recognise that physical, environmental and social conditions work together to produce human behaviour.

### **2. Definition of a key concept**

#### **2.1 Genetic factors**

Genetics is the study of heredity and the variation of inherited characteristics. An idea arose at the end of the 19<sup>th</sup> Century that criminality is inherited in the same way as physical characteristics, which are the genetic factors of criminality.

### **3. Criminal family studies**

Criminal family studies have their origins in the work of Dugdale, who concluded his research on the Juke family from New York, who were known for criminality, prostitution and poverty. Dugdale believed that these factors were related and fixed; he therefore postulated that criminality would always run in the family. *For example, the members of a family living in poverty, may get involved in prostitution or other criminal activities to earn an income for survival, the next generation of the family will also live in similar circumstances and be taught the same surviving skills and therefore repeat the previous generations criminal activities.*

Goddard traced 480 members of the Kallikak family and found that a large number of them have been criminals.

Both Dugdale and Goddard observed social as well as inherited criminal characteristics as causes of crime, both researchers emphasised the link between criminality and feeble-mindedness *For example, someone with a low IQ may be more prone to committing a criminal act than someone with a high IQ*

## C. Deyzel

---

Goring conducted a more sophisticated study on 300 prisoners and a control group of non-offenders. The prisoners were found to be inferior to the control group in terms of physical size and mental ability. Strong associations were found between the criminality of children and their parents and between brothers. It was also found that children who were separated from their parents at an early age, because of the parents that had been imprisoned were more likely to become offenders than compared to other children. *For example, the imprisonment of the parent may bring about their child being bullied because of their imprisonment, which could have long lasting effects on the child, giving him/her a reason to get involved in criminal activities.* Contact with a criminal parent did not seem to be a significant factor associated with criminal conduct. Goring therefore claimed that the primary source of criminal behaviour is inherited characteristics rather than environmental factors. In order to reduce crime, Goring recommended that people with such characteristics should not be allowed to have children.

Modern biosocial theorists are still interested in the role of genetics. Studies have found that criminality (*Criminal fathers*) does have a powerful influence on criminal behaviour, however, there is no certainty about the nature and causal relationship between parental and child offending, but evidence indicates that at least part of the association is genetic. At present researchers look to more indirect connections between genetic make-up and criminal behaviour. Research by Bohman for example suggested a genetic predisposition to alcoholism, which, in turn, increases the likelihood of criminal behaviour.

### **4. Twin studies**

A distinction must be made between identical and non-identical twins. Identical twins are the result of a single egg and a single sperm and are therefore genetically identical, while non-identical twins are born from two eggs simultaneously, fertilised by two sperms. Non-identical twins share only 50% of their genes and are no more similar than ordinary brothers and sisters. Researchers argue that, if identical twins act in identical ways, their behaviours could be the result of identical inheritance, but any differences in behaviour would have to be the result of the environment. *For example if one twin of identical twins turn to criminal behaviour and the other twin doesn't, it could be due to that they were separated at birth and grew up in different environments.*

During the 1920's Johannes Lange, a German Physician, traced 30 pairs of twins of which at least one member was a confirmed criminal. From the investigation group of 30, 13 pairs were identical twins and 17 pairs were non-identical twins. Lange found that, in 10 of the 13 pairs of identical twins, both members were offenders, whereas this was only the case with two pairs of non-identical twins. He attributed the differences between identical and non-identical twins to genetic factors.

## C. Deyzel

---

The principle difficulty of this research method is that the similar behaviour on the part of identical twins may be due to the similarity of environmental experiences, just as much as their identical heredity make-up. There is no certain way of separating environment and heredity as contributing factors to crime, however, studies of twins who were reared apart indicated that antisocial behaviour can be inherited.

### **5. Adoption studies**

In the case of adopted children – where contact with a criminal parent has obviously been limited- any association between criminal behaviour can be attributed to inherited characteristics with a greater degree of certainty. *An adopted child may for example been raised in the best home environment with good values and morals, but if the adopted child has a biological criminal parent, those morals and values will fade away and will most likely get involved in criminal acts, because it is inherited.* Hutchings and Mednick carried out a study on male adoptees between 1927 and 1941 that found that 48% of young males with a criminal record and 37.7% with a record of minor offences had a birth father with a criminal record. The study discovered that an adoptee was more likely to have a record where both the birth and adoptive father had previous convictions. After replicating the study in 1984 with similar results, Hutchings and Mednick concluded that there was a inherited characteristic element transmitted from the criminal parents to their children that increased the likelihood of children becoming involved in criminal behaviour.

Although the evidence from adoption studies appears to suggest a genetic involvement in criminal behaviour, environmental factors also have an influence. Jones points out that, nowadays, efforts are made to place adopted children in settings where no real change in environment may occur. Rhee and Waldman conducted an analysis of 51 twin and adoption studies. They concluded that there is moderate evidence of both genetic and environmental influences in antisocial behaviour. Whatever the influence of genes, therefore, it appears that the environment cannot be ignored. It is possible that genetic make-up provides individuals with particular predispositions, but that these only become realities under particular social/environmental circumstances. Thus what is inherited is not a tendency to commit acts as such, but rather a predisposition to develop certain aspects of the personality, some of which may be linked to criminal behaviour.

### **6. Conclusion**

Please provide own conclusion. Remember to indicate that this is your opinion, for example “this student is of the opinion that...” This is what you think about the theory. This is not a summary of your essay.