Genetic explanations
Propose that offenders inherit one or more genes which predispose individuals to criminal behaviour.

Raine reviewed research on the delinquent behaviour of twins and found a 52% concordance rate for MZ and a 21% for DZ.

Lang – 10 out of 13 MZ twins both had been to prison whereas only 2 out of 17 of DZ.

Candidate genes
Responsible for a particular trait or illness

**Cadherin 13**
Linked to substance abuse and ADHD

**Monoamine oxidase**
controls dopamine and serotonin in the brain and has been linked to aggressive behaviour.

Epigenetics
Genes are 'switched' on or off by epigenomes (a marking system on DNA which modify activity of genome) which in turn have been affected by environmental factors.
It is the link between environment and our genes.

Caspi - longitudinal study that has followed 1,000 people from babies to aged 26.
Assessed anti-social behaviour at 26 and found that 12% of those men with low MAOA genes had experienced maltreatment when they were babies but were responsible for 44% of violent convictions.

Crowe – adopted children who had a biological parent with a criminal record has a 50% greater risk of have one by 18.

Genes + environment play a part (diathesis stress) but genes are marginally more significant.

Biological only useful for explain some crimes e.g. violent as it studies aggressive behaviour.

The evidence shows that criminality cannot be 100% explained in terms of genetic so too deterministic.
Reductionism – oversimplify the situation.

Early twin studies – poor controlled, MZ or DZ based on appearance so lack validity. Sample sizes also small.

Finish study with 900 offenders found evidence of low MAOA activity and low CDH13 activity.
They estimate that 5 – 10% of all violent crime in Finland is due to abnormalities in one of these two genes.
Differential association theory

An explanation for offending which proposes that, through interaction with others, individuals learn the values, attitudes, techniques and motives for criminal behaviour.

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<tr>
<th>Scientific basis</th>
<th>Crime as a learned behaviour</th>
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<td>Sutherland set himself the task of developing a set of scientific principles that could explain all types of offending that is ‘the conditions which are said to case crime, should be present when crime is present and they should be absent when crime is.’</td>
<td>Offending behaviour may be acquired in the same way as any other through the process of learning. This learning occurs often through interactions with significant others that the child associates with, such as family and peers. Criminality arises from two factors: 1. Learned attitudes towards crime 2. The learning of specific criminal acts.</td>
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<th>Pro criminal attitudes</th>
<th>Learning criminal acts</th>
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<td>When a person is socialized into a group they will be exposed to values and attitudes towards the law. Sutherland argues that if the number of pro-criminal attitudes the person comes to acquire outweighs the number of anti-criminal attitudes they will go onto offend, the learning process is the same whether a person is learning criminality or conformity to the law.</td>
<td>In addition to be exposed to attitudes, may also learn techniques including how to break in. As well as offering an account to how crime may ‘bred’ amongst social groups and communities, this theory can also account for way convicts reoffend. Whilst inside they learn specific techniques.</td>
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This theory suggests that it should be possible to mathematically predict how likely it is that an individual will commit crime if we have knowledge of the frequency, intensity and duration of which they have been exposed to deviant and non-deviant norms. This learning may occur through observational learning and imitation or direct tuition from criminal peers.

This theory marked shift from blaming individuals to social factors – these can be changed so crime can be reduced. Crime running in families support as found that father will a criminal conviction, 40% had sons by 18 who had also compared to only 13% on non.

Criminality running in families support as found that father will a criminal conviction, 40% had sons by 18 who had also compared to only 13% on non. Confined to smaller crimes rather than violent and impulsive offences such as murder therefore partial account of offending behaviour.

Not testable as of the difficult of disentangling learned and inherited influences. Not clear what ratio of favourable and unfavourable influence would tip the balance. Can’t explain why most offences are committed by younger people – 40% of offences are by people under 21. Eysenck’s personality theory does.

The data collected in correlational so methodological issue of cause and effect e.g. peer influenced – offenders seek out other offenders rather than be influenced. Introduced the concept of white collar crime such as those by businesses, transgressions against the law can also be committed by people seen as middle class.

Preview from Notesale.co.uk

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**Behaviour modification**

Application of the behaviourist approach to treatment. It is based on the principles of operant conditioning. General aim is to replace undesirable behaviours with more desirable ones through the selective use of positive or negative reinforcement.

**Token economy**

Reinforcement of desirable behaviour with a token that can be exchanged for a reward. May include, avoiding conflict, following rules, keeping cells orderly etc. prisoners are given a token each time they perform such behaviour.

- Tokens are secondary reinforcers because they derive their value from their association with a reward.
- Reward could be phone time or extra cigarettes or food.
- Each of these behaviours and reward would be made clear to the prisoners before the programme is implemented. Would be emphasised that non-compliance with result in tokens being withheld or removed (form of punishment).

**Example – Hobbs and Holt**

introduced token economy with a group of young deviants across three units, with the forth being a control. They observed a significant difference in positive behaviour compared to non-token economy groups.

*Furthermore, similar effect was found with offenders in an adult prisoner (Allyon)*