

LO4 UNDERSTAND CAUSES OF POLICY CHANGE			How are biological approaches related to policy? - Crime control policies based on biological approaches assume that criminal behaviour is influenced by genetics, brain structure, or hormonal imbalances. Interventions such as chemical castration for sex offenders, methadone treatment for addiction, and neurosurgical procedures aim to reduce criminal tendencies by altering biological functions. Advances in genetic screening and neuroimaging also allow for early identification of at-risk individuals. While some policies have shown effectiveness, they raise ethical concerns about human rights, consent, and potential misuse. Despite these issues, biological approaches continue to shape crime prevention through forensic psychology, neuroimmunology, and medical rehabilitation programs.
Assessment Criterion	Content	Amplification	
AC4.1 The use of criminological theories in informing policy development	Criminological Theories <ul style="list-style-type: none">• individualistic• biological• sociological Policy Development <ul style="list-style-type: none">• informal policy making/populism• formal policy making:<ul style="list-style-type: none">◦ crime control policies◦ state punishment policies	Learners should be able to apply their knowledge of each of the theories and assess their use in informing policy on crime. This could include, for example: <ul style="list-style-type: none">◦ Penal Populism/Zero Tolerance◦ CCTV/Restorative Justice◦ Multi-Agency Approaches.◦ Brain Surgery/Compulsory Sterilisation	
POLICY TYPE	DESCRIPTION & PURPOSE	DOES IT WORK	ETHICAL ISSUES
Compulsory Sterilisation	Compulsory sterilisation has been used as a crime control policy in some countries under the belief that certain individuals, particularly those with criminal records or deemed “unfit,” should not reproduce. Supporters of this policy argued that criminal behaviour was hereditary , and by preventing certain groups from having children, future crime rates could be reduced. In the early to mid-20th century , countries like the United States, Sweden, and Nazi Germany sterilised individuals who were classified as criminals, mentally ill, or part of marginalised communities. Some programs targeted repeat offenders , especially those convicted of sexual crimes, while others focused on people considered at risk of producing “criminal” offspring, including the poor, disabled, and institutionalised.	There is no scientific evidence that compulsory sterilisation reduces crime. Crime is influenced by social, economic, and environmental factors , not simply genetics. Many people who were sterilised were not criminals at all —they were simply from disadvantaged backgrounds or had conditions that were misunderstood at the time. Even for those who had committed crimes, sterilisation did nothing to change their behaviour or address the reasons behind their criminal actions. In contrast, modern crime prevention focuses on education, mental health treatment, rehabilitation, and social support , which have been far more effective in reducing reoffending rates. The belief that sterilising certain groups would lead to a better society has been widely debunked as pseudoscience .	Compulsory sterilisation as a crime control measure is considered a human rights violation , as it removes a person’s ability to make decisions about their own body. In many cases, individuals were sterilised without their knowledge or consent , and some were misled into undergoing the procedure. The policy was often based on discrimination , targeting groups seen as undesirable rather than actual criminals. Instead of tackling the root causes of crime, it punished the powerless and reinforced social inequalities. Today, compulsory sterilisation is widely condemned, but concerns remain about coercive sterilisation practices in some legal and medical systems , particularly against prisoners, people with disabilities, and certain ethnic groups. Crime prevention should focus on justice, rehabilitation, and social reform , not unethical medical procedures that violate fundamental rights.
Brain Surgery (Lobotomy)	A lobotomy is a type of brain surgery that severs connections in the prefrontal cortex , the part of the brain responsible for emotions, decision-making, and impulse control. In the mid-20th century, some governments and medical professionals promoted lobotomies as a way to control violent or antisocial behaviour, including in criminals. The idea was that by altering the brain, individuals who were aggressive, disruptive, or “difficult to manage” could be made calmer and less prone to violence. In some cases, prisoners and young offenders were subjected to lobotomies, not because they had a mental illness, but as an attempt to control their behaviour and prevent future crimes .	Lobotomies did sometimes make individuals more passive, but they were not a reliable or effective crime control method. The procedure often left people emotionally numb, confused, or unable to function normally. While it could reduce aggression, it also damaged the person’s ability to think clearly or make rational decisions, sometimes making their behaviour worse rather than better. Unlike modern treatments that address the root causes of crime , such as mental health support, rehabilitation, and education, lobotomies were a crude and irreversible way of trying to control people, often without understanding the real reasons behind their actions.	From an ethical perspective , using lobotomies to control crime was a serious violation of human rights . Many patients were not properly informed or did not give full consent , and some were forced into the procedure against their will. Instead of offering fair trials and rehabilitation, authorities used lobotomies as a way to silence and subdue people. Some individuals who were not even criminals—such as rebellious teenagers or people with disabilities—were lobotomised simply for being “difficult.” Today, the use of lobotomies is seen as an example of how pseudoscience and unethical medical practices can be used to oppress vulnerable people, rather than genuinely helping them.
Detox and Drug Substitution	Antabuse (disulfiram) and methadone are medications used to treat addiction, but they work in very different ways. Antabuse is used for alcohol dependence and causes a severe reaction—including nausea, vomiting, and headaches —if alcohol is consumed. The idea is that this negative physical response will discourage drinking. Methadone , on the other hand, is used for opioid addiction and works by reducing cravings and withdrawal symptoms without producing the same high as drugs like heroin. Unlike Antabuse, which acts as a deterrent, methadone is a substitution therapy , meaning it replaces an addictive substance with a controlled, legal alternative.	Both medications can be effective, but their success depends on consistent use and supervision . Antabuse only works if the person takes it regularly , as skipping doses allows them to drink without side effects. It does not reduce alcohol cravings, so it is most useful for people who are highly motivated to quit . Methadone, in contrast, helps stabilize opioid users by preventing withdrawal symptoms, allowing them to function normally and avoid criminal behaviour linked to drug use. However, methadone can itself be addictive , so doses must be carefully controlled. Both drugs are most effective when combined with therapy, counselling, and long-term support .	Both treatments raise ethical concerns, particularly regarding control and dependency . Critics argue that Antabuse is more of a punishment than a treatment , as it does not address the underlying reasons for addiction. There are also safety concerns, as even small amounts of alcohol (in medicine or food) can trigger a severe reaction. Methadone is controversial because some believe it replaces one addiction with another , especially since some users remain on it for years. However, supporters argue that methadone helps keep people out of crime, overdose, and withdrawal cycles , while Antabuse can support those committed to sobriety. Ultimately, both treatments must be part of a broader strategy , addressing addiction’s social and psychological causes rather than just its symptoms.

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Chemical Castration	Chemical castration is a medical treatment that reduces testosterone levels in men, often using drugs like cyproterone acetate or leuprolide . It significantly lowers sex drive and can make it difficult or impossible to engage in sexual activity. Unlike surgical castration, which involves the removal of the testicles , chemical castration is reversible if treatment stops. Some governments have used it as a crime control measure , particularly for sex offenders, under the belief that reducing testosterone will make them less likely to commit sexual crimes. In some countries, it is voluntary for offenders seeking reduced prison sentences, while in others, it has been imposed as a legal requirement .	Chemical castration can be effective in reducing sexual urges , which may help prevent some sex offenders from reoffending. However, it does not work for everyone, as not all sexual crimes are driven by testosterone levels alone . Factors like psychological disorders, power dynamics, and violent tendencies can still lead to reoffending, even if sexual desire is suppressed. Additionally, for the treatment to work, offenders must continue taking the medication , which raises concerns about enforcement and compliance. Some studies suggest that chemical castration can lower recidivism rates , but its overall effectiveness depends on whether it is combined with therapy, supervision, and rehabilitation programs .	The use of chemical castration raises serious ethical and human rights concerns . Some argue that forcing someone to undergo a medical procedure—especially as a legal punishment—violates their bodily autonomy and could be considered cruel and unusual punishment . There are also risks of severe side effects , including depression, osteoporosis, and cardiovascular issues. Critics question whether it actually addresses the root causes of sexual offending , as not all offenses are purely hormonal. Supporters argue that it can be a useful tool for high-risk offenders , but others believe that long-term psychological treatment and rehabilitation are more effective at reducing crime than simply suppressing testosterone.
Eugenics & Genetic Interventions	Eugenics has historically been used as a crime control policy , based on the flawed idea that criminal behaviour is inherited and that society could reduce crime by preventing certain groups from reproducing. In the early 20th century, some governments believed that people with mental illnesses, low intelligence, or a history of criminality were genetically predisposed to crime. As a result, they implemented forced sterilisation programs to stop these individuals from having children, aiming to “purify” the population and reduce crime rates over generations. This approach was used in countries like the United States, Sweden, and Nazi Germany , often targeting poor communities, ethnic minorities, and people with disabilities .	There is no scientific evidence that eugenics reduces crime. Criminal behaviour is influenced by a mix of social, economic, and psychological factors . Many people who were sterilised or institutionalised under eugenics policies were not criminals at all —they were simply from disadvantaged backgrounds or had conditions that were misunderstood at the time. In reality, crime is more effectively reduced through education, social support, mental health treatment, and economic opportunities , rather than attempts to control reproduction. The belief that crime is “in the genes” has been widely debunked, and modern criminology recognises that environmental and social factors play a much bigger role in shaping behaviour.	The use of eugenics as a crime control policy is now seen as a serious violation of human rights . It was based on discrimination, pseudoscience, and state control over individuals’ reproductive choices . Many people were forcibly sterilised without consent , and entire groups were labelled as “unfit” to have children simply because of poverty, disability, or race. These policies ignored the real causes of crime and instead punished innocent people based on prejudice. Today, eugenics is widely condemned, but concerns remain over modern discussions of genetic engineering, profiling criminals based on biology, and attempts to control reproduction in vulnerable communities . History has shown that crime cannot be solved by controlling genetics—it requires fair laws, better social policies, and equal opportunities for all .

Q: With reference to two examples, assess how biological theories of criminality have informed policy development.

Biological approaches to crime prevention have played a significant role in shaping policies, from drug treatment programs to controversial surgical and genetic interventions. While some methods have shown promise in reducing recidivism and managing criminal behaviour, they also raise **serious ethical and human rights concerns**. The challenge lies in balancing crime prevention with ethical considerations, ensuring that interventions remain **justifiable, voluntary, and respectful of human rights**.