INTRODUCING PSYCHOLOGY OF CRIME

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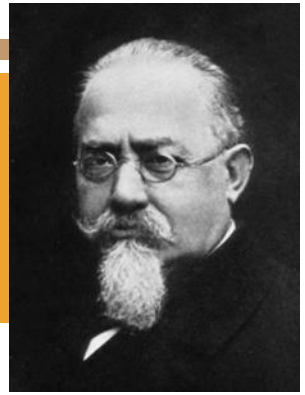
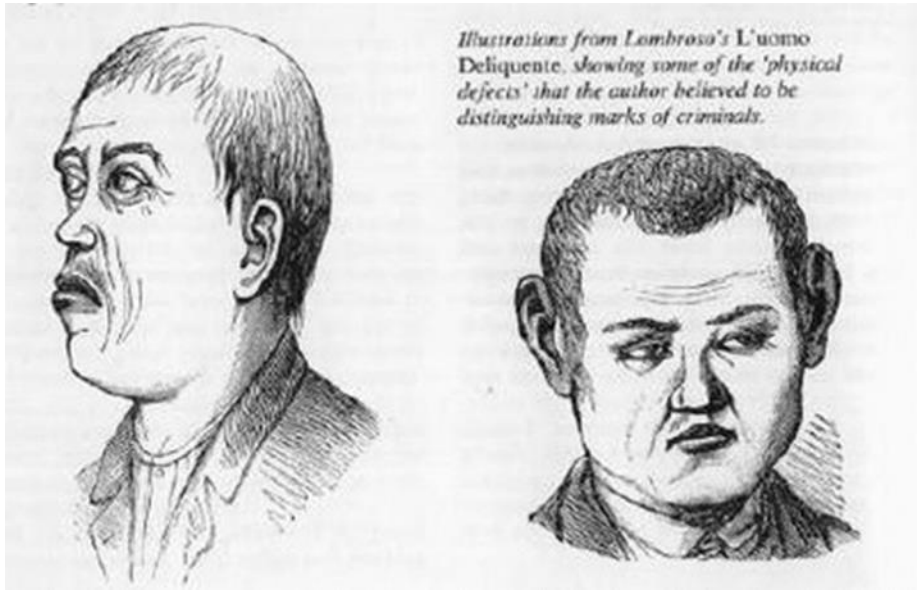
PSY 264 PSYCHOLOGY OF CRIME
WEEK 2

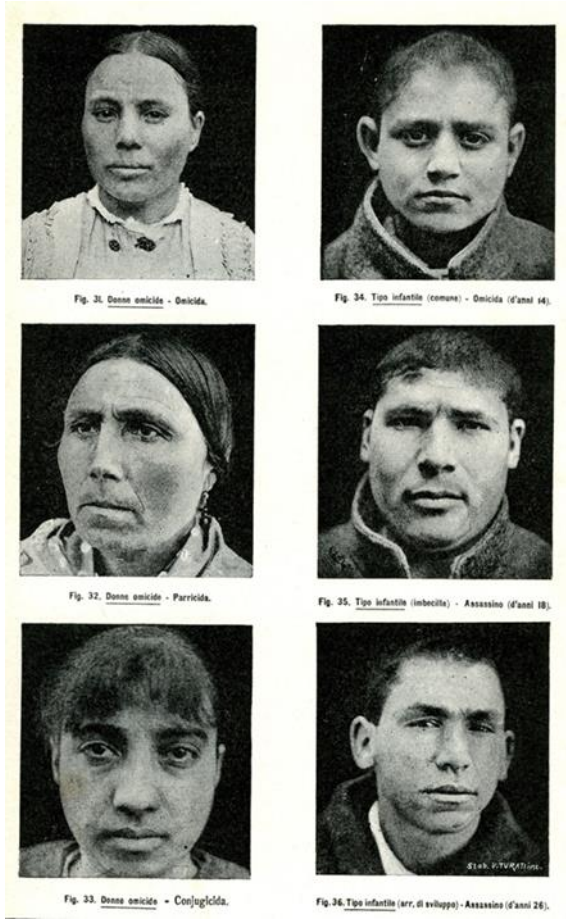
BIOLOGICAL FACTORS



- These theories suggest that **biology plays a role in criminal behavior**. Italian criminologist **Cesare Lombroso** (1835-1909) argued that criminals are a product of **genetic configurations**.
- He argued that the criminal is a **separate species**, a species between modern and primitive humans.
- He argued that the physical shape of the head and face determines the "**born criminal**." He claimed to have found several physical characteristics that predicted criminal behavior. They had large jaws, prominent cheekbones, misshapen ears, excessively hairy skin, and an insensitivity to pain.
- Lombroso examined and measured the bodies of **executed and deceased** criminals to detect physical differences or abnormalities, and he also examined **living** prisoners.
- He is known as the "**father of criminology**." However, Lombroso's work has been criticized on the grounds that **complex behaviors cannot be explained** by physical characteristics alone.

DRAWINGS BY CESARE LOMBROSO (L'UOMO DELINQUENTE, 1876)





BIOLOGICAL FACTORS/GENES AND TWIN STUDIES

- In these studies, researchers compare identical **monozygotic (MZ)** and **dizygotic (DZ) twins**.
- **MZ twins** share a higher proportion of the **same genes**. **DZ twins** share about **50% of their genes**. In cases where DZ also share the same environment, the differences between them may be due to genetics (Lang, 1931).
- Most studies tend to find an **average concordance rate** of about 55% for MZ twins and 17% for DZ twins.
- The question is **why this high level** of concordance occurs **in MZ twins**?
- Could it be because the **parents treat the MZ/identical twins the same** way and therefore, give them the same experiences?

BIOLOGICAL FACTORS/ADOPTION STUDIES

- Another way to examine the effects of genetics is to look at **adopted children**.
- Several studies have been conducted.
- Mednick *et al* (1984) examined over 14,000 adopted children and found that when **both biological and adoptive parents** were criminals, the percentage of adopted children who were criminals was **higher**.

Table 1.9: Findings from Mednick *et al.* (1984)

Are biological parents criminal?	Are adoptive parents criminal?	Percentage of criminal sons
Yes	Yes	24.5
Yes	No	20
No	Yes	14.7
No	No	13.5

BIOLOGICAL FACTORS/EEG AND NEUROLOGICAL FACTORS

- **EEG** (Electroencephalogram) recordings are used to assess **brain functioning**.
- Studies have been conducted examining **abnormal EEG and violent behavior** (Gunn and Bonn, 1971).
- It has been noted that **EEG abnormalities are higher in criminals** than in others.
- Hill and Pond (1952) studied criminals and recorded EEG abnormalities in approximately 50% of their cases. Head **injuries and tumors** due to brain damage have also been associated with **crime** (Canter, 2008).

BIOLOGICAL FACTORS/NEUROTRANSMITTERS

- **Serotonin:** Some studies have suggested that **violent people** may have **lower serotonin** levels and are **disadvantageous** when they have to **control** their own levels of **aggression** (Virkkunen *et al.*, 1996).
- **Testosterone:** Testosterone plays a role in stimulating certain brain centers that are **linked to aggression**. It plays a role in the development of the **muscles that is activated** when someone becomes **aggressive**.
- There is evidence that testosterone levels may be higher in individuals with aggressive behaviors, such as **violent criminals** (Batrinos, 2012).
- However, **high testosterone levels** have also been found in men who have **not committed crimes**. One study found that aggression associated with high doses of testosterone was only observed in **a small proportion** of men (Pope *et al.*, 2000). This is partly due to the fact that **males dominate crime figures** and the assumption that this is related to **male hormones**.

BIOLOGICAL FACTORS

- We must remember that **biological factors are not causal factors** but rather factors that **contribute to crime.**
- This field is generally known as **'biological positivism'**.
- Although our biological makeup affects us, it does **not completely determine** our behavior and personality. **Environmental factors** also play a role in behaviours and personality.
- Today, contemporary approaches accept biological positivism and use bio-social or **bio-psycho-social** frameworks.
- They examine how **biological conditions can predispose** people and how the **environment shapes behavior** (Coomber *et al.*, 2015).

PHYSIOLOGICAL FACTORS/SUBSTANCE ABUSE

- Drugs are substances that can **alter mood, perception, thought, and behavior.**
- Durrant (2013) proposed **four models** of the relationship between **substance use and crime**:

1. Drug use leads to crime (e.g., selling **stolen** goods and then buying drugs);
2. Crime leads to drug use (e.g., drug users **celebrate** their crimes by using more drugs);
3. There is another factor (e.g., **unemployment**) that can lead to both drug use and crime
4. Drug use leads to crime, and crime leads to drug use (**reciprocal model**).

Drug	Examples	Method	Typical effects
Opiates	Opium, Heroin (local name: White, Ubat)	Ingested, smoked, injected	Euphoria, pain relief, relaxation, nausea, respiration problems,
Stimulants	Cocaine, amphetamine, Methamphetamine (local name: Ice, Ya Ba)	Ingested, snorted, injected	Elation, excitement, reduced fatigue, increased heart rate, paranoia, repetitive behaviors
Hallucinogen	Lsd, mescalin	Ingested	Perceptual distortion, enhanced sensory awareness, disturbed cognition, anxiety and panic
Cannabis	Marijuana (local name: Ganga, Weed)	Oral, smoked	Euphoria, altered perception, impaired memory, bloodshot eyes, increased heart rates
Depressants	Alcohol, barbiturates	Ingested	Euphoria, disinhibiting impaired perception

Source: Adapted from Durrant, (2013) and Central Narcotics Bureau (n.d) ('Growing up drug free').

PHYSIOLOGICAL FACTORS/ ALCOHOL ABUSE

- Scientifically, alcohol is a **drug**, a depressant, which causes speech disorders, unsteady body movements, impaired perception and inability to react quickly.
- Alcohol use is a **significant risk** factor for crime.
- In cross-sectional studies, Wells *et al*. (2000) reported that **heavy alcohol use** was associated with experiences of **threat and aggression**. Alcohol use has been associated with **violent and property crimes** (Fergusson and Horwood, 2000).
- It is also estimated that alcohol and drug use in **sexual crimes** affects both **perpetrators and victims** by almost 50%. This is due to the '**drink spiking**' and the **drugs** commonly found in these incidents. GHB (Gamma hydroxybutyrate) and Rohypnol make the **victim vulnerable and incapacitated**, facilitating sexual crimes such as harassment and rape.

PHYSIOLOGICAL FACTORS/ ALCOHOL ABUSE

- Alcohol impairs the **decision-making** abilities of criminals.
- Alcohol causes the criminal to be **weak in evaluating the risks and benefits** of a course of action.
- **Alcohol myopia** refers to the **narrowing of a person's attention** to the most salient, easy-to-process immediate cues in the environment (Giancola et al., 2010).
- Alcohol does **not directly cause aggression**, there are some **mediating factors** that work in between. These factors are:

1. hostile temperament,
2. irritability,
3. impulsivity,
4. risk-taking,
5. low empathy (Giancola, 2002).

- **Contextual factors** include being provoked by others, and the environment where alcohol is consumed.

PSYCHOLOGICAL FACTORS- CRIMINOGENIC NEEDS

- Criminogenic needs: The '**Central Eight**'
- In their book *The Psychology of Criminal Conduct*, Andrews and Bonta (2010) propose the 'Central Eight', or eight criminogenic risk and need factors.
- Eight A's-L's

Table 1.8: The Central Eight

4 'A's	4 'L's
Anti-social behaviour	Lack of happiness and stability in relationships, marriage
Anti-social personality	Lack of stability in employment, achievement
Anti-social attitudes	Lack of prosocial leisure
Anti-social peers	Lifestyle of alcohol, drugs

PSYCHOLOGICAL FACTORS- CRIMINOGENIC NEEDS

The 4 'A's are:

- **Antisocial behaviour:** A history of involvement in a range of antisocial acts in a variety of settings;
- **Antisocial personality:** Antisocial personality disorder is a pervasive pattern of disregarding and violating the rights of others. Those with an antisocial personality may be irresponsible, aggressive and violent, behave impulsively and have difficulty complying with social norms and laws (they are often impulsive, pleasure-seeking, aggressive, hostile and irritable);
- **Antisocial attitudes and cognitions:** Attitudes, values, beliefs and rationalisations of thought to justify criminal acts. Offenders often display specific thinking errors such as a sense of entitlement, self-justification, blaming others and a 'victim stance' (e.g. 'the police are out to get me'). They often misinterpret neutral statements as threats (e.g. 'he shows no respect for me so I beat him up');
- **Antisocial friends, peers and partners:** Social learning occurs through association with the 'wrong friends'. Gang affiliations are a particular problem. Gang-affiliated juvenile offenders have a higher history of substance use, gun use, and violence. They are at greater risk of reoffending and are more likely to engage in violence and other crimes during the pursuit.

The 4 'L's' are:

- **Lack of happiness and stability in relationships such as family and marriage.**
- **Lack of education, employment, and achievement:** Studies of prisoners who participate in prison-based education or vocational training programs show that these individuals are less likely to reoffend after release than those who do not, because they tend to have higher rates of employment (Wilson et al., 2000).
- **Lack of prosocial activities:** Participation in prosocial (pro-social) activities during leisure time reduces criminality in youth.
- **Alcohol, drug, and substance abuse lifestyle:** The prevalence of alcohol and drug use is four times higher among offenders than in the general population. Studies have found that peer influence, provocation and anger, boredom and excitement, alcohol and drugs, and money are the primary reasons why youth commit crimes. More education is needed in social competence, minimizing aggressive behavior, moral reasoning, and helping students find purpose in life.

PSYCHOLOGICAL APPROACHES TO CRIME IN THE 20TH CENTURY

- The idea that **genetics** may create a **predisposition to crime** is still strongly held, despite the difficulties encountered in providing evidence or in identifying the mechanisms by **which criminal behavior is transmitted** genetically.
- In recent years, **evolutionary ideas** have been used by psychologists to explain the criminality of certain groups and individuals.
- Does having **criminal parents** create a **predisposition to crime**?
- Studies of criminality among **adopted cohorts and twin studies** have been used as evidence of **a genetic link** (Cloninger and Gottesman 1987; Mednick *et al.* 1987), but when these studies are examined, the evidence is **not as strong** as the claims.

EVOLUTIONARY PSYCHOLOGY

- **Lombroso** was very interested in the idea that criminality could be explained in evolutionary terms, and that some people's **genes were a regression to more primitive** forms of humanity.
- Its association with **eugenics and "final solutions"**, and the exaggeration of this by Lombroso and some of his followers, made this line of thought very unpopular.
- In recent years there has been a **surge of interest in evolutionary psychology and criminality** (Daly and Wilson 1988; Ellis and Walsh 1997).

PROPOSITIONS REGARDING THE THEORY OF EVOLUTION

- There are **three distinct aspects of evolutionary theory** applied to crime:
- A certain amount of **selfishness/cheating** can help increase an individual's **reproductive success**. In other words, selfish individuals who **exploit resources** for themselves can increase the likelihood that their offspring will survive (and thus their genetic material will be passed on).
- Certain types of crime can be explained in evolutionary terms. It has been suggested that crimes such as **rape** make sense from an evolutionary and male perspective because **men successfully spread their own genetic material** through rape (Thornhill and Palmer 2001).
- Perhaps there is something in the evolving roles of men and women that explains crime. Crime seems to be a more **male-dominated behavior**. In very general terms, **women** have evolved to be **more caring and nurturing** because men can have many children and women can have relatively few. Men, on the other hand, may be **more adventure-seeking, irresponsible, and interested in material success and status**. Factors such as meeting the needs of their partners and children, being in a better position, etc. may **increase the propensity** for crime.

EVOLUTIONARY PSYCHOLOGY

- Although Lombroso's ideas have been criticized as **untestable and overly deterministic**, evolutionary ideas that link **complex elements of thought to social behavior** have also been used in investigating the relationships between **being male and crime** (Archer 1994; Cohen et al. 2002).
- By the 1930s, psychology had become much more interested in **how the environment shapes behavior**, particularly how organisms, including humans, learn to change their behavior **in response to their experiences with the environment**.

LEARNING THEORY, CONDITIONING AND CRIME

- From the 1930s to the 1970s, **Learning Theory dominated** thinking in psychology.
- The impetus for this work came from **Pavlov's experiments with dogs**. He had taught dogs to salivate at the sound of a bell. The lab dogs already salivated at the sight and smell of a plate of meat (**the unconditioned stimulus**) and would not normally salivate at the sound of a bell. However, if the dogs were presented with meat and the bell was rung repeatedly, they would learn to **associate the bell with food** and eventually **learn to salivate** at the sound of the bell (**the conditioned stimulus**).
- Many psychologists who followed in this tradition believed that such **learning mechanisms** could be used to understand more **complex behaviors.** They opposed those who believed that psychology should be based on the introspection of Wundt or the interpretive speculation of psychoanalysis.

LEARNING THEORY, CONDITIONING AND CRIME

- Learning theory argued that we could understand how people behave by examining the effects of **external inputs (stimuli) on behavior (responses)**.
- "**People are a set of learned responses**."
- Although the experimental methods were new, the model of humanity presented here was not. The person was presented as essentially **hedonistic (pleasure-seeking) and pain-avoidant**.
- In other words, behaviors that lead to **pleasant experiences** would be **more likely to be repeated**, and behaviors that lead to **pain** would be **less likely to be repeated**. This is strikingly similar to **Beccaria's classical view** as it relates to criminal behavior.
- In this tradition, efforts have been made to link **associative learning mechanisms** to the **development of conscience** (Lykken 2000). People who are **punished** in some way for **wrongdoing will learn** that certain behaviors **cause pain**, and their **conscience** will remind them of this before they commit the act.

LEARNING THEORY, CONDITIONING AND CRIME

- Despite having had considerable influence on mainstream academic psychology (especially in the US and UK) for decades, behaviourism and learning theory fell out of favour. **Much about human beings could not be studied by these methods**.
- Behaviourism eventually gave way to the **cognitive revolution** (Neisser 1976). Although largely out of date from a theoretical perspective, learning theories have informed many efforts in behavioural therapies for a range of **undesirable or 'deviant' behaviours** (Murdoch and Barker 1991).
- Developments in learning theory have been used to understand criminal behaviour:

1. They were used by **social learning theorists**, who incorporated the idea that people can learn criminal behaviour by **observing the behaviour of others** in their environment, starting from very simple patterns of behaviour shaped by **punishment and reward**.
2. They were used by **Hans Eysenck**, who attempted to relate learning theory to **inherited personality factors**.

SOCIAL LEARNING THEORY

- There has been considerable interest in **Bandura**'s work on the **acquisition of violent behavior**. Bandura's **'Bobo Doll' experiment** (Bandura *et al.*, 1961) is often cited as evidence of social learning in the acquisition of violence.
- Small groups of boys and girls aged 37-69 months watch a man or woman **verbally aggressive** towards a large plastic doll. These children are then generally found to be **more aggressive** than the control children.
- Sutherland (1947) suggests that individuals **learn delinquency from those around them**.

EYSENCK: LEARNING, CRIME AND PERSONALITY

- Studies with detailed personality inventories such as the **MMPI (Minnesota Multiphasic Personality Inventory)** clearly show **strong associations between criminal behavior and scoring 'high' on scales** such as the **psychopathic deviance scale**.
- We cannot suggest that personality traits cause crime, but it is not surprising that someone who reports having **little regard** for the feelings of others, **enjoys harming** others, and enjoys taking risks is **more likely to engage** in criminal behavior and take **more risks**.
- Hans Eysenck's (1987) work on crime and personality is notable for providing **a comprehensive theory of crime**.
- He adopted **two important principles** that have dominated the academic field:

1. **Learning theory**, which holds that behavior can be understood as a result of the **patterns of reward and punishment** to which individuals are exposed, and
2. the idea that individuals have **different personalities** that affect their ability to **learn from experience**.

EYSENCK: LEARNING, CRIME AND PERSONALITY

- Eysenck argues that people are **born with a certain personality**.
- There are **basic characteristics** that remain **constant** throughout life.
- The basic characteristics necessary to understand the development of crime are: **extraversion, neuroticism, and psychoticism.**
- **Extraversion** refers to the degree to which a person is **outgoing and excitement-seeking**.
- **Neuroticism** refers to the degree to which a person has **natural anxiety**.
- A person who is seen as **high in psychoticism** is likely to be **reckless, trouble-making, cruel, insensitive, hostile, excitement and risk-seeking** (Eysenck 1987).

EYSENCK: LEARNING, CRIME AND PERSONALITY

- Eysenck views **extraversion and neuroticism** as variables with **physiological differences**.
- He argues that people with **high levels of extraversion** have **lower levels of cortical arousal**. They are motivated to **seek stimulation and excitement**.
- The autonomic nervous systems of those with **high levels of neuroticism** are seen as **more labile** and therefore **more prone to mood swings and negative emotional experiences** (depression, anxiety, poor self-esteem) **without any apparent cause**.

EYSENCK: LEARNING, CRIME AND PERSONALITY

- According to Hans Eysenck, the **stimulation of the cerebral cortex** determines people's **temperament.** From a **biological perspective**, those with a **low cerebral cortex stimulation threshold**, those who listen to loud music today, who can perform much more successful actions in crowded noisy environments, and those who drive at high speeds are defined as "**hungry for more stimulation**". Why? Since the threshold is low, they need to be exposed to a lot of stimulation in order to be aroused.
- According to Eysenck, people with a **high cerebral cortex stimulation threshold** are those we describe today as the **SCHIZOID character pattern.** They are afraid of noise, they are disturbed, human noise, crowds are a big problem for them. Driving at high speeds is never for them, it is risky. Since the threshold is already very high, they do not want to stimulate their cerebral cortex any more, they do **not want to receive stimulation**.
- For example, a psychopath/antisocial/sociopath is hungry for stimulation. For this reason, they are hungry for very **heavy stimulation rather than moderate stimulation**; (for example, a severe stimulus is cutting someone with a saw; this is a stimulus, a stimulus given to the body, mind and soul) they are in search of a stimulus, **a search for excitement.**

EYSENCK: LEARNING, CRIME AND PERSONALITY

- Eysenck suggests that the people most prone to criminality are those

1. **high in extraversion** (excitement and danger) and
2. **high in neuroticism** (people who have difficulty learning from experience; in many cases, because they are prone to disturbing emotions, they cannot learn to distinguish between events that lead to pleasure and those lead to pain).

- The evidence for these variables is **very weak**. It can therefore be concluded that there is **no consistent relationship** between extraversion or neuroticism and criminality.
- However, there seems to be a **stronger relationship with psychoticism.** In many ways, one would expect that a person who scores high on psychoticism would actually be more likely to commit crimes. Those who **derive pleasure from hurting** others and making people afraid of them are likely to also enjoy **highly antisocial pursuits**.

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