

A-level Psychology Aggression Revision for PSYA3

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Aggression

A-level Revision Notes AQA(A)

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Exam Advice

You MUST revise everything - because the exam board could choose any question, however, it does make sense to spend more time on those topics which have not appeared for a while.

Exam Tip:

With these particular questions there is a sizeable risk that people don't understand the difference between the questions, and then write about the wrong thing.

Make sure you know which is which, for example do you understand the difference between "Genetic explanations" and "Neural and hormonal explanations", and do you have a model essay for each?

Section 1: Neural and Hormonal causes of aggression.

The Limbic System

AO1

- The Limbic System (including the Hypothalamus and Amygdala) tends to act as an alarm system triggering aggressive response to certain types of threats.
- Giving testosterone to new-born female mice made them act like males with increased aggression, when given testosterone as adults. However, control females only given testosterone as adults did not react in this way (Edwards, 1968).

This suggests that testosterone masculinises androgen-sensitive neural circuits underlying aggression in the brain.

AO3

Research in Greece found that removing the amygdala reduced aggressive incidents by between 33% and 100%, although the sample was small – 13 patients.

The Phineas Gage study provides evidence that brain damage may have an effect on personality including aggression.

Serotonin Research

AO1

- The PET-1 Gene is linked to the production of the hormone serotonin, which inhibits (i.e. stops) aggression. Damage to the gene, in mice, raises aggression. [sometimes referred to as “Knockout Mice”] (Deneris, 2003).
- Drugs increasing serotonin production lead to reduced levels of aggression, suggesting that low levels of serotonin are linked to increased aggression (Delville et al., 1997).
- Rats selected for reduced aggression levels had higher serotonin and greater levels of serotonin related activity than wild, more aggressive counterparts (Popova et al., 1991).
- Research shows a relationship between low levels of serotonin and violent behaviors, suggesting that a lack of serotonin is linked to aggression (Linnoila & Virkunen, 1992).
- Lidberg et al. (1985) compared serotonin levels of violent criminals with non-violent controls, finding the lowest levels of serotonin among violent criminals.

Most evidence linking low levels of serotonin and aggression is only correlational and does not indicate causality.

Testosterone Research

AO1

- Giving the hormone testosterone to new-born female mice made them act like males with increased aggression, when given testosterone as adults.

However, control females only given testosterone as adults did not react in this way, suggesting that testosterone masculinises androgen-sensitive neural circuits underlying aggression in the brain (Edwards, 1968).

- Testosterone affects certain types of aggression in animals, such as intermale aggression as a defence response to intruders, while predatory aggression is not affected (Bermond et al., 1982).
- Van Goozen (1997) conducted a natural experiment on trans-gender sex-change patients. This is one of the few cases where research was actually carried out on humans.

Findings revealed testosterone levels governed aggression. Males receiving testosterone suppressants became less aggressive. Females receiving testosterone became more aggressive.

- Aggressive Boys, violent criminals, military offenders all had high levels of testosterone (Dabbs, 1996).

AO3

Individuals with elevated testosterone levels exhibit signs of aggression, but rarely commit aggressive acts, suggesting that social and cognitive factors play a mediating role (Higley et al., 1996).

Dabbs and Morris (1990) 'Blocked pathways to success' study: When a rich boy with high testosterone came home from the army he was less likely to get into trouble, but when a poor boy with high testosterone came home he was more likely to get into trouble.

This suggests testosterone doesn't simply cause aggression, but it makes aggression more likely as a response to frustration.

Cortisol Research

AO1

- The fearlessness Theory: Stress, caused by the hormone cortisol may inhibit aggression through fear. So individuals with lower levels of cortisol are less inhibited, more inclined to take risks and act impulsively (Raine, 2002).
- Low cortisol leads to Sensation seeking behavior, especially in males (Zuckerman, 2010).
- Low levels of Cortisol in delinquent teenagers with conduct disorder (Fairchild, 2008)

General Criticisms of Neural and Hormonal Research

AO3

Much of the evidence is only correlational and may not prove causation. It isn't clear whether hormones promote aggression, or aggressive behavior stimulates hormone production.

Comparative – much of the work on hormones and neurotransmitters has been done on animals and may not apply to humans so easily.

Reductionist: Sees only biological factors, overlooking social issues such as de-individuation Heredity / Environment: Biological theories tend to overlook the effects of socialisation and other environmental issues, such as environmental stressors.

Deterministic: Assumes humans have no choice and will follow primitive behavior patterns.

Section 2: Genetical Origins of Aggression.

Genes alone do not control aggression, rather they affect the production of hormones and neurotransmitters which in turn affects aggression. So you will also draw upon your knowledge of biological factors, but you MUST show a link to genetics for each one.

Basic Evidence of Genetic Influences on Aggression

AO1

- Animal studies show instinctive patterns of behavior including aggressive behavior. If a whole species has a similar level of aggression then it must have a genetic basis.

- Twin studies have shown that twins have similar levels of aggression.

Using old Danish police records Christiansen (1977) demonstrated that levels of criminality showed a stronger correlation between identical twins – with the same genes – than between dizygotic twins.

AO3

However criminality is not always the same as aggression.

Genetical Research on Serotonin

AO1

- PET-1 Gene is linked to serotonin production which inhibits aggression. Damage to the gene in so called “knockout mice” raises aggression. Mutations in humans can have the same effect (Deneris, 2003).

- Acts of impulsive aggression, such as domestic violence, have a genetic link to the serotonergic system, suggesting that many genes may be involved in aggression (New et al., 2003).

Genetical Research on MAOa - The Warrior Gene

AO1

- MAOA is an enzyme which helps with the re-uptake of neurotransmitters including serotonin. Humans with the MAOA L gene (L is for Low) have a lack of MAOA enzyme. Without this enzyme to recycle it the level of serotonin may become depleted.

- When researchers found the MAOA-L gene present in 56% of New Zealand Maori men it was nicknamed “The Warrior Gene”. Poa {2006} criticised this term as unethical - i.e. racist.

It was later found that the gene is present in 58% of African American men and 36% of European men, so it is actually a mainstream genetic variation with adaptive advantages associated with risk taking.

- A Dutch family has long history of aggression, and a genetic inability to process serotonin due to lack of MAOA (Brunner, 1993)

- Caspi et al (2002): Interaction of MAOA problem AND abusive childhood led to aggression. If boys with the MAOA – L gene suffered abuse in childhood , they were 3 times more likely to be aggressive when they reached adulthood.

Genetical Research on Testosterone

AO1

- Bogaert et al. (2008) established that variations in male testosterone levels are inherited – and therefore genetic.

- Giving testosterone to newborn female mice made them act like males with increased aggression, when later given testosterone as adults. Females only given testosterone as adults did not react in this way, suggesting that testosterone masculinises aggression systems in the brain at birth, it’s not just an environmental issue (Edwards, 1968).

- Rissman et al. (2006) investigated Sry, a gene leading to the development of testes and high androgen levels in males. Male and female mice with and without the gene were tested. The Sry gene was associated with high levels of aggression, suggesting that genes and hormones interact and that sex chromosome genes also have a role.

Gender and Aggression

AO1

- Rissman et al. (2006) investigated Sry, a gene leading to the development of testes and high androgen levels in males. Male and female mice with and without the gene were tested. The Sry gene was associated with high levels of aggression, suggesting that genes and hormones interact and that sex chromosome genes also have a role.

- The Super-Male hypothesis (Sandberg, 1961) suggested the XYY Gene led to aggression. Later research by Alice Theilgard [1984] did show that 16 men out of 30,000 sampled had the xyy gene and that these were slightly more aggressive and slightly less intelligent but this is such a rare mutation that it does not explain aggression in the general population.

General Criticisms of Genetic Research

AO3

Comparative – much of the work on genes has been done on animals and may not apply to humans so easily. However, the experiments which have been done on mice relate to chemicals and genes which are very similar.

Reductionist: Danger of seeing only biological and overlooking social psychology issues such as de-individuation. Tends to overlook the effects of socialisation and other environmental issues, such as environmental stressors. Genetic factors do not work in isolation but interact with environmental factors as well.

Deterministic: Assumes that humans have no choice and will follow quite primitive behavior patterns.

Section 3: Ethological Explanations of Aggression.

What is Ethology?

AO1

Ethology is where we learn about human psychology from studying other animals.

- Conrad Lorenz believed that aggression was an innate adaptive response – something which had evolved in humans and animals to help them survive.

- To see off predators: For example a group of hissing geese can drive off a fox, even though the fox would probably win a straight fight. If the geese survive, then the gene which led to that aggressive response will be passed on.

- To get resources: Lorenz also suggested that much aggression was aimed at members of the same species, when competing for territory or sexual partners, but some animals are so fierce they could easily damage each other when fighting for dominance; Eg. Wolves, Stags, Lions.

This would be maladaptive – bad for the species. Therefore they fight until one backs down, not to the death, just to establish who is stronger and who is weaker.

This creates a society in which each individual knows their place. They have evolved ways of warning others to back off: Dogs bark and snarl, cats hiss, apes beat their chest or wave sticks about.

Niko Tinbergen called these Fixed Action Patterns [FAP]

Fixed Action Patterns [FAP]

AO1

Lea [1984] analysed FAPs and identified 5 features:

1. Stereotyped – behavior follows a certain pattern each time.
2. Universal all the animals in that species use the same type of threat.
3. Innate: all the animals in that species seem to be born with it and don't have to learn it.
4. Ballistic: Once it starts it cannot simply be stopped.
5. Specific triggers seem to set it off.

AO3

Breland and Breland found that animals tend to revert to instinctive behavior regardless of training. This would support the FAP theory.

It could be argued that some behaviors are learned in the environment – but maybe not all. Dogs can be trained by hunters, army and police to act in particular ways.

Eibesfeldt (1972) tried to identify human FAPS such as smiling to show non-aggression, however he found that our culture changes so quickly that cultural differences in signs can change more quickly than evolutionary patterns. Rude words and hand signs can change, so not evolutionary. Humans are certainly capable of developing new ways of expressing aggression – such as cyber bullying!

Innate Releasing Mechanisms [IRM]

AO1

- Creatures have evolved an instinctive response to certain signs. [Like a red rag to a bull!]

Eg. Male sticklebacks will respond aggressively to the red underbelly of a rival male – but not to a female who does not have the red underbelly.

The Hydraulic Model of instinctive behavior [Lorenz 1950]

It may be easier to understand and remember the hydraulic model if you compare it to a toilet ! The water level gradually fills up till you flush it - then it has to be filled up again.

AO1

- Lorenz said that all creatures build up a reservoir of Action Specific Energy – you could call it “pent up aggression”. When the Innate releasing mechanisms [IRM] trigger the Fixed Action Pattern [FAP] all the aggression is fired off.

Once it is out of the system the animal is less aggressive again till the level of Action Specific Energy has built up again.

AO3

This explanation was probably an example of Lorenz trying to adapt Freudian ideas to animals! Freud wrote about the build-up of sexual energy [Libido] and Lorenz applied a similar idea here.

This theory fails to explain premeditated aggression and bearing grudges.

Holst [1954] found that instead of getting it out of the system, aggressive action could feed back to make the person more angry and increasingly more aggressive.

Arms et al. [1979] found that watching violent sport did not flush aggression out of the system but tended to increase it. Bushman does not agree with idea of Catharsis – says that aggression may lead to more aggression.

Section 4: Evolutionary Explanations of Human Aggression.

The central idea of this topic is that for aggression to be an adaptive feature it has to serve a purpose.

Aggression is Adaptive

AO1

- David Buss has identified 7 adaptations of aggression in humans:
 - Self Defence
 - Reputation to ward off future aggression
 - To achieve status – more allies less enemies
 - Get and keep better share of resources. Pinker (1997) states aggression evolved in men to compete for women. This may have been the MAIN reason for aggression as there was no other property worth fighting over as we evolved.
 - Deny own resources to children of rivals
 - To prevent other males sharing the prime females
 - Prevent partner being unfaithful. For example, sexual jealousy may have evolved to ensure that men pass on their own genes rather than allowing other males access to their mate.

Inter-Group Aggression

This is aggression between different groups, such as warfare and gangs.

AO1

- **Buss** states human males have evolved cognitive bias towards organised aggression: E.g.
 - Cognitive bias to expect attack
 - Cultivating tough reputation
 - Use of vengeance as a deterrent
 - Strategies for planning and timing an attack
 - Deception and the ability to detect deception
- **Cosmides and Tooby**, the Military Contract: Men will only fight if those who share the rewards also share the danger. Other animals are not bright enough to work this out.

Intra-Group Aggression

This is aggression within a single group, mainly linked to male rivalry and sexual jealousy.

AO1

- **Daly and Wilson**: Male – Male aggression among young men is common in all human cultures – suggesting it is evolutionary.
- **Pinker (1997)** suggests aggression evolved in men to compete for women. This may have been the MAIN reason for aggression as there was no other property worth fighting over as we evolved. Through most of evolution there was no money, no real property, so women were the only target of aggression.
- **Potts and Hayden (2008)**: War and aggression aimed to control women's mating habits since development of farming made inheritance of land important. Jealousy has evolved as a male response to the threat of infidelity. Jealous males are determined to pass on their OWN genes.
- **Daley and Wilson (1988)**: Men may use jealousy and violence to control partners sexual behavior. Violence is not intended to kill but may have that result. E.g. Fertile young women 10 times risk of domestic violence.

General Criticisms of Evolutionary Research

AO3

Ethics: Waller says : Violence , Xenophobia and even genocide are adaptive, but this is very deterministic and unethical.

Ethics and Gender: Critics feel this theory could be used to justify violence against women. Buss himself always points out that we are not controlled by our genes, we have inherited the ability to learn and to choose.

Reductionist: Is this an over-simplification? Are there other issues which promote aggression such as culture or Individual differences in testosterone and cortisol.

Heredity & Environment: Are environmental factors a greater cause of aggression?

- Environmental stressors, heat, noise etc
- Cortisol levels in pregnant mother
- Childhood abuse and neglect

Deterministic: Evolutionary explanations may seem to suggest that aggression is natural but Figuerdo [1995] suggests jealousy and domestic violence are context specific not inherent, women are less likely to be victims of domestic violence if they have several brothers in town, so aggression can be controlled.

Section 5: Social-Psychological explanations of Aggression.

Social learning Theory

In the 1960s Social learning theory seen as a challenge to behaviorists Suggested children learn things even without doing them, through observational learning and modelling.

Exam Tip: If the question asks about Social learning Theory it is not enough only to write about the Bobo Doll experiment. That was only one experiment – not the whole theory.

AO1

- Behaviorists believe learning occurs through experience followed by either punishment or reward. “Social Learning Theory” challenges that approach.
- The central idea of social learning theory is that people do not need rewards to learn aggression, they may copy the behavior of others, but this is less likely if they see the other people being punished.

Bandura states children learn by imitation, and are more likely to copy depending on:

- The actual behavior of the role model
- The status of the person copied
- The closeness / immediacy of the person
- How well we understand what is happening

Bobo Doll experiments: Children copied adults

Contributory factors:

- Similarity: boys will copy boys, family links and groups etc.
 - Presentation: How close, live, immediate the violence was
 - Warmth: If the model was more friendly towards the subject
 - Prestige: If the model had high status
 - Appropriateness: If the behavior was “appropriate.
- **Vicarious reinforcement:** (i) Adult was rewarded children slightly more likely to copy; (ii) adult was punished children were much less likely to copy.
 - **Disinhibition:** People are more willing to do things if they see that others are already doing them.
 - **Bandura’s conclusions:** Aggression is not inevitable. Children observe aggressive behavior in others, but how they act may depend on what the consequences of aggression were, particularly for those they use as role models.

AO3

Positive Criticisms of Bandura

Huge implications for society -provides a key to understanding causes of good and bad behavior. Based on clear research in lab and followed up by many studies into TV violence, video games etc.

Negative Criticisms of Bandura

Experiment was in a lab – may lack ecological validity.

Children may have known that the Bobo Doll was designed for punching and therefore more open to suggestion, also they may have been aware of the experiment from other children in the group.

These are both examples of demand characteristics.

Media Implications

Viewing violence may cause children to develop cognitive scripts which involve violence in dealing with situations.

A danger that media violence makes children more desensitised, more hardened to acts of violence in real life.

Social Theory: De-Individuation

AO1

- The central idea of this theory is that humans have a natural tendency to be aggressive if they think they can get away with it. Being disguised, or part of a crowd, will therefore lead to increased aggression.
- Festinger (1952) invented the term “Deindividuation”, defined by Fraser and Burchell (2001) “A process whereby normal constraints on behavior are weakened as persons lose their sense of individuality.”
- **Contagion Theory:** Starting point for deindividuation
 - Le Bon 1896: People in groups become infected with a kind of group hysteria and act in ways they would not do on their own.
 - Blumer 1939: Circular reaction where the people add to the crowd and the crowd fires up the people.
- Zimbardo (1969): An electric shock experiment, similar to the classic Milgram study, found that disguised students were more likely to shock others – supports deindividuation.
- Deiner Et Al (1976) Studied 1300 American children “trick or treating” on Halloween. Children in disguised or in a large group behaved worse. Supports deindividuation theory.
- Mullen (1986) studied lynch mobs. The greater the number of people tended to correlate with the level of violence.

AO3

Gergen 1973: Deindividuated persons in dark areas became more affectionate. Therefore de-individuation need not always lead to aggression

Postmes & Spears (1988): Deindividuated people are not necessarily aggressive - Crowds may be happy and good natured – as at pop festivals

Tajfel (1981): Reduced private self awareness. Taking on the values of groups we belong to – which may be peaceful or aggressive

Johnson and Downing: some people in Nurses uniforms and some in Ku Klux Klan outfits.

De-individuation led to better, more caring behavior by the nurses which suggests de-

individuated people get into the role more and the role may not be aggressive.

Zimbardo: Stanford Prison experiment saw students adopting to perceived roles.

Emergent Norm Theory & convergence theory

These ideas can be used as criticisms of de-individuation. They suggest that groups or sub-cultures come together because they have some sort of similarity, (convergence) then establish their own norms (emergent norms). Often one person, or a few people will behave in a certain way which others like - so they copy. This argues against de-individuation and the faceless crowd, it does not imply aggression will result. A very good example would be the hippy culture of the 1960's

The Frustration-Aggression Hypothesis

AO1

- Aggression is a result of frustration. Frustration is any event or stimulus that prevents an individual from attaining a goal and it's accompanying reinforcement quality (Dollard & Miller, 1939).
- Displaced Aggression [Dollard 1939] You can't kick the boss, so you kick the cat. Like Lornez, Dollard thought that getting aggressive cleared the mind of frustrations [a Catharsis] and life could then go on as normal.
- Berkowitz (1989) updated version known as "Negative – affect theory". Frustration is just one factor, others may include feeling uncomfortable [eg. Heat, Reifmann [1991]] - but could also be noise or loud music. Certain cues may increase the tendency towards aggression such as seeing a weapon on the table – Berkowitz used a baseball bat in experiments. Also if the problem is unexpected the individual is less likely to control their aggression.
- So, the level of aggression will depend on:
 - how much you really want to achieve the goal
 - Whether you understand that there is a good reason for the problem
 - How expected / unexpected the frustration was

AO3

Bandura (1973) Frustration may lead to aggression if that has worked for someone in the past and they have internalised that way of dealing with problems.

Harris (1974) Found that people at the front of a queue were less aggressive if someone pushed in, whereas people at the back of a long queue were feeling a greater sense of frustration and therefore made a bigger fuss.

Wright and Klee (1999): Societies will be more stable and peaceful if they have systems which allow clever or hardworking people to rise to the top. Otherwise a strong but angry working class will develop, filled with people who resent being "kept down".

Brown (2001) - holidaymakers became more aggressive when frustrated by delays.

Priks (2010) has tried to explain football violence this way. Supporters seem much more likely to misbehave when their team is losing.

Mallick and McCandles found that people were much less aggressive when given a reason for the frustration. Doob and Sears [1939]: people felt angry when a bus went by without stopping. But people were less angry if the bus had a sign saying out of service [Pastore 1952]

The danger is that it justifies deviant behavior: Plenty of people suffer injustice or unfairness and do not turn to violence. Therefore there must be some additional factor, such as a biological dimension, to explain why some people turn to violence or aggression when faced with problems and others don't.

Section 6: Institutional Theories of Aggression.

The situational approach: prisons make people aggressive – it's the situation to blame.

The dispositional approach: prisoners are aggressive people who make the prison violent.

The Situational Approach: Sykes' (1958) Deprivation Model

AO1

- Some institutions have harsh living conditions, such as prisons, army camps, refugee camp
This is less of a problem if the deprivation is for a good reason; if you were on a “round the world yacht race” or a mountaineering trip you have positive attitudes to keep you going.
- Some institutions, deprive people of things they want:
 - liberty,
 - autonomy,
 - goods and services,
 - sexual relationships,
 - security
- This deprivation causes stress and frustration which leads to an aggressive sub-culture. But this only applies to places with harsh conditions: E.g. in prison, army, refugee camp etc. Less likely to be a problem if the deprivation is for a good reason; Eg. fitness & diet camp.

Effects

- The general environment becomes dangerous and aggressive.
- Some people retreat, back down, hide in their cells.
- Others compete in order to get what they want.
- Getting a tough reputation is very important in order to get respect and not be a victim.

Support for Situational Model

McCorkle (1995) In a study of 317 United States prisons, poor facilities and overcrowding were found to influence levels of violence.

Franklin (2006): Age and overcrowding led to aggression, with younger inmates (18-30) being most aggressive in conditions of overcrowding. Her Majesty's Prison Woodhill: Major improvements at this prison included less noise, better ventilation, attractive views and especially less crowding. This led to a massive improvement in behavior in the 1990s.

Criticism

Harer and Steffensmeir (1996) found that age, race and criminal background were the only variables which affected levels of aggression. This strongly argues for the importational model, not the deprivation model.

The Situational Approach: Dysfunctional Institutions

Another situational argument is that the prisons themselves are dysfunctional. Milgram believed that people are loyal to the hierarchy of the organisation, but sometime the hierarchy encourages cruel behavior.

Much of Milgram's thinking was influenced by events of the holocaust in Germany. Here the institutional aggression was on the part of the guards, rather than the prisoners.

The Stanford Prison Experiment

Zimbardo found that ordinary students became aggressive and cruel when they took on the role of being a prison guard. At the time of the Zimbardo experiment there were many prisons in the united states where conditions were extremely poor, violent and overcrowded. Some even used the prisoners as slave labour on prison farms. Zimbardo's experiment strongly supports the situational approach.

Historical Context

At the time of the Zimbardo experiment there were many prisons in the united states where conditions were extremely poor, violent and overcrowded. Some even used the prisoners as slave labour on prison farms. Zimbardo's experiment strongly supports the situational approach.

Features of dysfunctional Power Systems (Zimbardo)

- Isolated from the outside world
- Own set of values
- Cohesive group; guards don't question orders
- Under pressure to act quickly
- Difficult situation to manage
- Out-group seen as troublemakers

Dispositional Explanation: The Importation Model

AO1

• A prison is a violent place because aggressive people are in there. Their aggressive attitudes become part of its nature. It's a dispositional approach because everything depends on the attitudes of the prisoners. This may also apply to other groups and institutions; The army / Extreme political groups / Street gangs.

Irwin and Cressy 1962: People who are sent to prison already have well established criminal behavior patterns. Prisoners were often gang members before going to prison and their loyalties and relationships are continued in the prison environment.

They also have certain learned patterns of behavior – “The code of the Streets”. They may also have problems which cause problems with relationships. E.g, Lack of self-control - Delisi (2011); Impulsive, anti-social - Wang & Diamond (2003).

AO3

Support for Irwin and Cressy / importation model

Men who were members of gangs before they went to prison are more likely to be involved in violent offences whilst in prison. Drury and Delisi (2011)

Mears (2013) believed that the code of the street is imported into prison and is the fundamental cause of aggression.

Poole and Regoli 1983: Violence before prison was the best indicator of violence inside prison. This supports the importation model.

Fischer (2001) Segregating gang members inside prison, so that they did not come into conflicts with other gangs, led to a 50% reduction in assaults.

Criticism of Importation Model

Delisi (2004) found that gang members were NOT more violent than other prisoners. However, this is a rather weak piece of research as it does not allow for the fact that those gang members had already been segregated away from other gang members. The importation model does not really explain why some organisations act aggressively when they are made up of good people supposed to act sensibly. Police officers, school teachers, traffic wardens, psychiatric nurses, and salesmen are all members of organisations which have sometimes been accused of acting in an aggressive way and yet these are very law abiding people who joined those organisations willingly and for good reasons.

Exam Tip

In January 2012 there was a short question (4 marks) which just said; Describe one experiment which investigated Institutional Aggression. A short summary of Zimbardo was all that was needed.

Section 7: Media influences on aggression.

Exam Tip: Many criticisms can be made of the methodologies used in studying the link between Media and Aggression. Click here for AO3 suggestions on this unit.

Computer Games

In recent years computer games have replaced film as the target of claims that children are taking on immoral attitudes and copying violence. Especially those involving violence, especially first person "shoot-em-ups" "Grand Theft Auto" is a very good example.

AO1

- Five psychological theories could be mentioned to support the view that repeated exposure to video game violence may lead to real life aggression:

- 1. Learning theory [Skinner]

Everything you have ever learned about Operant Conditioning can be beautifully applied to this argument. The computer game is the world's most effective "Skinner Box".

The human is conditioned to think in patterns which have been pre-programmed into the machine. Basic ideas are taught in the basic levels and behavior is constantly shaped to conform to the rules of the game. Every act, every single click on the mouse, is instantly rewarded, by the computer's response. Mistakes are instantly punished.

- 2. Learning theory [Bandura]

Attention \rightleftharpoons retention \rightleftharpoons production \rightleftharpoons motivation

Individuals model the aggressive acts in the game. Some characters, and some types of behavior, are more likely to be copied because they are seen as attractive and appropriate etc. There is no sense of real punishment for making mistakes – just game over and start again. This creates disinhibition, individuals unconsciously feel that if they commit aggression they will not be punished.

- 3. Social Cognitive Observational Learning Theory [an updated version of Bandura]

Psychologists have identified certain mechanisms which explain why we learn and copy behavior:

- Schemas: Models which help us understand the world [Grebner 1994]
- Normative beliefs: social rules and explanations [Guerra Et. Al.]
- Cognitive Priming: What connects to what in the brain [Berkowitz, Huesmann]
- Cognitive Scripts: A pattern of behavior we have ready to deal with certain situations

So the films don't suddenly turn a person violent, but they might slowly cause the development of anti-social attitudes. This could be more effective in certain types of people [not very intelligent, have no positive role model, feel hard done by in life].

- 4. The General Aggression Model [Anderson and Dill]

This model brings together elements of Social learning and Cognitive Priming Theory and suggests that if we live in a violent environment – such as a war zone, we will adapt to it, our thoughts, feelings and actions will be based around violence and that is how we will survive. But could over-exposure to gaming have the same effects?

Evidence for General Aggression Model: Meta-Analysis Findings: Anderson et al. [2004] 35 studies examined Found that video game violence exposure is related to: increases in aggressive affect, cognition and behavior increases in physiological arousal; decreases in helping behavior.

- 5. Neurological Effects

Ritterfield and Mathiak [2006] -- Participants were subjected to a functional magnetic resonance imaging scan whilst playing a violent video game. It appeared to suggest that emotional areas of the cortex are to some extent "switched off" during the game, perhaps an

adaptive mechanism which permits an animal to focus on survival. This is the same as happens when engaged in real acts of violence.

Cognitive Priming

AO1

- Cognitive priming is based on the idea that memory works through association. It therefore contends that events and media images can stimulate related thoughts in the minds of audience members. For example, if we have often seen clowns throwing custard pies at one another, then when we encounter a custard pie in real life we may think about throwing it at someone.
- A schema is a model of what we think normally happens. We assume that our parents will feed us and our friends will be pleased to see us because that is what normally happens.
- A cognitive script is a way of dealing with a situation. We have learned that in a hotel restaurant we sit down and wait to be served, but in a burger bar we line up at the counter.
- Berkowitz thinks watching violent movies could lead to storing schemas and cognitive scripts which involve aggression EG. the students in the Stanford Prison experiment had never been in a real prison but they may have had a schema based on movies they had seen. EG. Students who play “Grand Theft Auto” might develop a cognitive script for what to do when traffic lights turn amber. This may be different from the way their Grandma drives!
- Priming means that a particular event, or an image or even a word may be associated with these thoughts. We call that a trigger. When we encounter the trigger we may respond in the way we have been primed. EG. a football comes bouncing towards me - without thinking I put out my foot to stop it or kick it back, but if it's a cricket ball I would pick it up and throw it back. I am primed to respond differently to the cricket ball. So Berkowitz argues that we learn anti-social attitudes from the media and these are associated with certain triggers.

AO3

Steve Berkowitz [1984] did an experiment involving an argument in an office. In condition A there was a baseball bat on the side of the desk. In condition B there was a badminton racquet. Berkowitz found the presence of the baseball bat led to more aggressive responses.

Bushman [1998] Participants who had watched a violent film responded more quickly to aggressive words than those who had watched a non-violent film.

Anderson and Dill [2000] Found that playing a violent computer game led to more aggressive thoughts. They claimed that even playing the game just once could be having this effect, although the effect might only be short term.

Zelli [1995] found that cognitive priming could be used to make people suspicious of the intentions of others. This in turn led the people who had been primed to act in a more aggressive manner.

Murray [2007] – used fMRI scans to study children's brains when watching violent and non-violent TV programmes. Violent films led to increased activity in those areas which deal with emotion, arousal and attention – not surprising – but also in the areas used to store episodic memory. This supports the suggestion that children can store scripts.

Atkin [2003] found that priming was more pronounced when the media was more realistic. However this may not simply mean it “looked better” it might relate to how much the participant believed it was realistic.

Desensitisation

AO1

- Media violence triggers biological [physiological] changes, specifically a general arousal, similar to how people respond to a real life threat [flight or fight]. If the level of fear is too much we may feel.
- In the natural world a certain level of natural fear should make people hold back from violent situations. The desensitisation argument suggests that if children watch too much violence on TV they will be less scared and therefore more open to aggressive activity.
- People become less likely to notice violence, or in real life. They have less sympathy for victims of violence. They have less negative attitudes towards violence. [Mullin and Linz 1995]

Measuring desensitisation

- Desensitisation can be monitored by physical indicators of stress, such as heart beat and galvanic skin response. [Linz 1989]
- Carnagey [2007] found that experienced computer gamers show less of a reaction to a film of real life violence.

Effects of Desensitisation

- Bushman and Anderson [2009] found that desensitisation made people less likely to help others in unpleasant situations.
- Dolf Zillman suggested that if we survive real life danger we feel good afterwards [winners] During an action movie we feel excited and stimulated. Later we want that excitement again but we become de-sensitised so we need more scary films to get us excited. This could transfer to seeking violence in real life.

Disinhibition

AO1

- Normally we act in certain ways because we have been socialised to know what is right and wrong. We get aroused and excited by a film or a game and this causes us to lose our inhibitions, acting in a more extreme manner till the excitement dies down.
- Long term Disinhibition: Too much violent TV can change our actual moral values so that we see more violent standards of behavior as acceptable. One aspect of this is that we often see acts of violence going unpunished in movies or games and this could lead to disinhibition.

Individual factors [Collins 1989] make disinhibition more or less likely:

- Violent home background
 - Physical punishment of children
 - Younger viewers
 - Children with low intelligence
 - Children who believe their heroes are realistic
 - Children who believe the media reflects real life
- Disinhibition less likely if Strong family norms against violence or where adults discuss issues from the film with their children.

About the Author

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Assessment Objectives

AO1
Demonstrate knowledge
(a) demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures.
(b) show a knowledge and understanding of psychological theories, terminology, concepts, studies and methods.
AO2
Application of knowledge
(a) apply knowledge and understanding of scientific ideas, processes, techniques and procedures:
↯ in a theoretical context
↯ in a practical context

- ↯ when handling qualitative data
- ↯ when handling quantitative data

This skill area tests knowledge of research design and data analysis, and applying theoretical understanding of psychology to everyday/real-life examples.

AO3

Analyse, interpret and evaluate

(a) analyse, interpret and evaluate scientific information, ideas and evidence, including in relation to issues, to:

- ↯ make judgements and reach conclusions
- ↯ develop and refine practical design and procedures.

Examples of how you can score AO3 marks

Whether or not theories are supported or refuted by valid research evidence. After describing a theory go on to describe a piece of research evidence saying, 'X's study supports/refutes this theory...' and then describe the research study.

Contextualising how the topic in question relates to broader debates and approaches in Psychology.
For example, would they agree or disagree with a theory or the findings of the study?

Animal Research - This raises the issue of whether it's morally and/or scientifically right to use animals.

The main criterion is that benefits must outweigh costs.

Animal research also raises the issue of extrapolation. Can we generalize from studies on animals to humans as their anatomy & physiology is different from humans?

General criticisms and/or strengths of theories and studies.

E.g. 'Bandura's Bobo Doll studies are laboratory experiments and therefore criticisable on the grounds of lacking ecological validity'.

To gain marks for criticising study's methodologies the criticism must be contextualised: i.e. say why this is a problem in this particular study.

'Therefore, the violence the children witnessed was on television and was against a doll not a human'.