

Pearson Edexcel Level 1/Level 2 (9–1) GCSE Psychology

Topic Guide 6

Criminal Psychology – Why do people become criminals?

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Criminal Psychology – Why do people become criminals?

Specification requirements

This topic is an optional topic and will be examined in Paper 2.

Candidates are expected to demonstrate and apply the knowledge, understanding and skills described in the content.

To demonstrate their **knowledge**, candidates should undertake a range of activities, including the ability to recall, describe and define, as appropriate.

To demonstrate their **understanding**, candidates should explain ideas and use their knowledge to apply, analyse, interpret and evaluate, as appropriate.

Candidates may be asked to consider the following issues when **evaluating** studies:

- validity
- reliability
- generalisability
- ethics
- objectivity
- subjectivity.

Candidates may be required to **apply** their understanding – for example by responding to scenarios that are drawn from the topic area and/or associated research – and in doing this they should use psychological concepts, theories and/or research from within their studies of criminal psychology.

Opportunities for practical activities

Candidates should gain hands-on experience of carrying out ethical, investigative activities to aid their understanding of this subject. To help centres identify opportunities for carrying out these activities, studies that can be replicated have been marked with an asterisk.

Research methods are delivered in Topic 11. However, as a way to aid candidates in evaluating the studies, centres can encourage them to consider the methodology of the key studies as they progress through each individual topic. For example, candidates could consider the reliability of a field experiment when testing the effect of television on aggression when studying **Charlton et al. (2000)** (6.2.2).

Although candidates will not be directly assessed on practical activities, the experience they gain will give them a better understanding of this subject and may enhance their examination performance.

Guidance

6.1 Content

6.1.1 Understand learning theories as an explanation of criminality, including strengths and weaknesses of each theory

Operant Conditioning (Skinner, 1948), to include:

- a. **positive reinforcement**
- b. **negative reinforcement**
- c. **positive punishment**
- d. **negative punishment**
- e. **primary reinforcers**
- f. **secondary reinforcers**

Candidates may benefit from starting their learning with basic descriptions and definitions of these key terms and the differences between them; for example, understanding the differences between reinforcement and punishment. It may be beneficial to follow this by helping candidates to develop an understanding of positive (to receive) and negative (to remove). This may aid candidates in understanding the key differences between the concepts.

By using scenarios that allow candidates to identify the types of operant conditioning taking place, centres could aid them in understanding that **positive reinforcement** (6.1.1a) is the receipt of a desired outcome, **negative reinforcement** (6.1.1b) is the removal of an undesired outcome, **positive punishment** (6.1.1c) is the receipt of an undesired outcome and **negative punishment** (6.1.1d) is the removal of a desired outcome. It may be useful to draw on examples from the research of Skinner at this point, such as his classic works using the 'Skinner Box' or superstitious pigeons.

Ian is given a sticker each time he tidies his room. When he does not tidy his room he is not allowed to play on his computer game. What type of reinforcement does Ian receive? What type of punishment does Ian receive?

Vicky is given permission to not attend a school trip to a large city because she is frightened of crowded places. Her friend Sarah does not attend the trip either but this is without permission and Sarah receives a detention from the head teacher. What type of reinforcement does Vicky receive by not attending? What type of punishment does Sarah receive for not attending?

Candidates should be aware of the differences between **primary reinforcers** (6.1.1e) and **secondary reinforcers** (6.1.1f), for example by understanding that primary reinforcers meet a basic human need such as food and that secondary reinforcers enable someone to use them to acquire something that meets a basic need. At this point, centres may wish to make a link to the use of these reinforcers in a **token economy programme** (6.1.4a), by drawing on how the tokens act as secondary reinforcers to exchange for a primary reinforcer.

Throughout this topic, the application of these concepts to stimulus materials, explanations and examples drawing from criminal and anti-social behaviours would benefit candidates. Centres could develop scenarios and examples from which candidates can identify the key features, structures and processes of operant conditioning that are evident and describe them in relation to the key concepts.

Social Learning Theory (Bandura, 1977), to include:

- g. **role models**

- h. modelling
- i. identification
- j. observational learning
- k. vicarious reinforcement

Centres may wish to discuss social learning theory as arising from questions surrounding behaviours that seem to be learned without direct reinforcement or punishment. Candidates should be aware that social learning theory is a development of elements of operant conditioning with a focus on the modelling of behaviour. It would be beneficial to be able to define the key terms associated with social learning theory and how the concept fits with the explanation of behaviour.

The concept of a **role model** (6.1.1g) as an individual who the observer has **identified** (6.1.1i) with in some way (perhaps due to age or gender) can be highlighted through examples such as celebrities in the media. Candidates could explain why some people could be considered 'good and bad' role models by presenting examples of each. They should discuss the process of **modelling** (6.1.1h) and **observational learning** (6.1.1j) where they would benefit from being able to understand the processes of attention to the role model, the retention of the behaviour they have observed, the reproduction of this behaviour and the motivation for doing so. The latter point can lead candidates towards exploring **vicarious reinforcement** (6.1.1k) as a motivator for reproducing behaviours seen in others. Centres may wish to make a link here to **pro-social behaviour** (6.1.4).

At this stage, centres may wish to deliver the study by **Bandura, Ross and Ross (1961)** (6.2.1) to highlight the process of social learning with a focus on aggressive behaviour which will enable candidates to draw the links to criminality and anti-social actions. It may also be useful to make a connection to the role of the media at this stage, perhaps highlighting this with examples such as the Columbine school shootings or other similar occurrences, in order to connect social learning theory to criminality and subsequently to the contradictions from the study by **Charlton et al. (2000)** (6.2.2).

Throughout this topic, the application of these concepts to stimulus materials, explanations and examples drawing from criminal and anti-social behaviours would benefit candidates. Centres could develop scenarios and examples from which candidates can identify the key features, structures and processes of social learning theory that are evident and describe them in relation to the key concepts.

Vicky is 12 years old. She is shopping with her 17-year-old sister Pamela when she observes Pamela taking make-up from the shop without paying. That night, Pamela's friends are complimenting her on how nice her new make-up is. When Vicky is at the shops the following week, she takes make-up without paying. How would social learning theory explain why Vicky takes this make-up without paying?

Learning theories can be evaluated through comparisons to other theories and explanations, such as whether operant conditioning can explain behaviours that an individual has not been directly reinforced for and whether personality types are a more plausible explanation. Supporting evidence can be used where available, such as Skinner's research using his 'Skinner box' with rats and pigeons. Equally, supporting evidence can be used where it shows that the theory or explanation may be inaccurate, for example by drawing on **Bandura, Ross and Ross (1961)** (6.2.1) to show that behaviours may be learned from others rather than from direct reinforcement.

Candidates can also judge how useful the theory or explanation is, such as whether there is an application to society; for example, **punishments** (6.1.3) or **treatment programmes** (6.1.4). Some candidates may benefit from being extended by drawing on the concepts delivered in the 'issues and debates' content, where themes such as nature (**biological explanations**, 6.1.2) and nurture (**learning theories**, 6.1.1) could be used to help evaluate explanations.

6.1.2 Understand biological explanations of criminality, including personality types (Eysenck, 1964), to include strengths and weaknesses of the theory:

- a. extraversion**
- b. introversion**
- c. neuroticism**
- d. psychoticism**

Candidates should understand that biological explanations of criminal and anti-social behaviour stem from the belief that there is a fundamental biological difference within an individual that results in them being more likely to become criminal or anti-social. Broad examples could be used to expand on this concept, such as the role of the MAOA gene in aggressive behaviour (McDermott et al., 2008), or brain differences such as those found by Raine et al. (1997) in their study of murderers. These broader concepts could be exemplified with examples, such as Brunner et al.'s (1993) study of a 'Dutch family' where several generations exhibited criminal tendencies.

To aid candidates in understanding how the combinations of high and low personality types can link to criminal behaviour, it is important to be able to explain **extraversion** (6.1.2a) as being lively, sociable and pleasure seeking with **introversion** (6.1.2b) being in opposition to this and more akin to being shy or quiet. The candidates should know that **neuroticism** (6.1.2c) is a continuum that reaches from the stability of low neuroticism to the instability of high neuroticism, and that **psychoticism** (6.1.2d) is being more likely to be reckless or to have a disregard for the conventions of society. Candidates should understand that, according to Eysenck, these personality types have explicit connections to biological predetermination (such as genetic predisposition) and biological functioning (such as cortical arousal and brain excitation and inhibition).

Candidates should understand that scoring highly in some of these personality variants is considered to be indicative of an increased likelihood that an individual will engage in criminal or anti-social behaviours. For example, high psychoticism and high neuroticism scores have been found to correlate with anti-social behaviour (Cale, 2006).

Throughout this topic, the application of these concepts to stimulus materials, explanations and examples drawing from criminal and anti-social behaviours would benefit candidates. Centres could develop scenarios and examples from which candidates can identify the key features of personality types that are evident and describe them in relation to the key concepts.

Sarah has been arrested for smashing a window and breaking into a shop to steal some clothes. She tells the police that she is not really all that bothered by her arrest and that the shop charges too much for clothes so they deserve it. Sarah says she does not really care that there are laws that make theft a crime, then laughs as the police officer charges her with several criminal offences. Can you describe one personality type that Sarah's behaviour might indicate?

Biological explanations can be evaluated through comparisons to other theories and explanations, such as whether operant conditioning can explain behaviours that an individual has not been directly reinforced for and whether personality types are a more plausible explanation. Supporting evidence can be used where available, such as McDermott et al. (2008) who looked at genetics and the MAOA gene. Equally, supporting evidence can be used where it shows that the theory or explanation may be narrow, for example in studies such as Brendgen et al. (2005) where the role of the environment was considered when looking at aggression in children, or **Bandura, Ross and Ross (1961)** (6.2.1) to show that behaviours may be learned from others rather than due to a biological predisposition to personality types. Examples such as the 'Dutch family' (Brunner et al., 1993) could be used to generate a debate as to whether social learning

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theory can also explain such a case in order to engage the candidates in considering examples from a range of viewpoints.

Candidates can also judge how useful the theory or explanation is, such as whether there is an application to society or not. Some candidates may benefit from being extended by drawing on the concepts delivered in the 'issues and debates' content, where themes such as reductionism could be used to help evaluate biological explanations.

6.1.3 Understand the effects of punishments on recidivism, including strengths and weaknesses of each punishment:

- a. **prison**
- b. **community sentencing**
- c. **restorative justice**

Candidates should be able to explain the main forms of punishment, to include **prison** (6.1.3a), **community sentencing** (6.1.3b) and **restorative justice** (6.1.3c). When learning about these punishments, candidates should be aware that each is underpinned by different aims and beliefs about how to prevent further crimes and thus have a positive effect on recidivism. For example, the use of **imprisonment** (6.1.3a) aims to be both a deterrent and a retributive process, while incorporating rehabilitation. When delivering this, centres may wish to discuss the use of a **token economy programme** (6.1.4a) within prison institutions. Additionally, **anger management programmes** (6.1.4b) are also available within the prison system, along with post-release through community services.

Community sentencing (6.1.3b) aims to punish the offender through activities that are carried out in the community. These include unpaid work and can include a requirement for treatment programmes, such as **anger management** (6.1.4b), or treatments for drug or alcohol addictions in order to address the range of possible causes of offender behaviour that could result in recidivism if these issues are left untreated.

Finally, **restorative justice** (6.1.3c) aims to prevent recidivism through reparation to the community, with an emphasis on resolution with the direct victim of the offender's crime. Prevention of recidivism stems from the resolution of conflict between the parties involved, thereby the offender is helped to understand the effect of their behaviour on others and to reflect on how they interact with individuals and within communities.

Throughout this topic, the application of these concepts to stimulus materials, explanations and examples drawing from criminal and anti-social behaviours would benefit candidates. Centres could develop scenarios and examples from which candidates can identify or suggest an appropriate form of punishment for an offender, how it could be used and whether it would work.

Mike is 19 years old and has been caught by police for drawing graffiti on the wall of the local community centre. The centre is used by a parent and toddler group during the day and for community bingo for over 60's one evening a week. Mike's family have a history of criminal and anti-social behaviours and they have said that graffiti is not that bad and should not even be a crime. The court decides that using restorative justice may help Mike to understand how his behaviour affects other people. Why might the court think that restorative justice would work in Mike's case? What other punishment could be appropriate for Mike?

Forms of punishment can be evaluated through comparisons to each other, to supporting evidence and through the application of theories and explanations, such as whether restorative justice would really work if the cause of the offending is a personality type. Supporting evidence can include statistics and data that show success rates, or equally which show that a particular punishment does not work by considering recidivism rates after punishment.

6.1.4 Understand two treatments to rehabilitate and reduce criminal and antisocial behaviour and increase pro-social behaviour, including strengths and weaknesses of each treatment:

- a. token economy programmes
- b. anger management programmes

The use of a **token economy programme** (6.1.4a) may be delivered through the concept of **prison** (6.1.3a) or following **operant conditioning** (6.1.1). Candidates should be aware that a token economy works within a controlled, institutional setting as it requires close and consistent monitoring of behaviours. Candidates should understand that this treatment is based on principles of operant conditioning, but also that it goes beyond operant conditioning; for example, agreed secondary and primary reinforcers and a fixed ratio of exchange. Pro-social behaviour is achieved by gradual reduction of the tokens, resulting in a learned behaviour changing to a more desired behaviour.

Candidates should be aware that **anger management programmes** (6.1.4b) seek to address an offender's levels of anger or aggression, and are therefore not effective with utilitarian offences such as theft. They usually aim to change how an offender reacts to a trigger by drawing on cognitive behavioural techniques. Candidates may benefit from understanding how the process of anger management would be used. Pro-social behaviour is achieved when the offender no longer reacts with anger to a given situation or trigger.

It may also be beneficial for candidates to consider how the use of **role models** (6.1.1g) can encourage pro-social behaviour, perhaps by drawing on social learning theory (6.1.1) concepts and then suggesting who might be in a position to provide positive role modelling for offenders.

Throughout this topic, the application of these concepts to stimulus materials, explanations and examples drawing from criminal and anti-social behaviours would benefit candidates. Centres could develop scenarios and examples from which candidates can explore the most appropriate treatment.

Mike is 22 years old and has received several criminal convictions. He appears in court for assaulting an employee of a local company who Mike claimed deserved to be hit because they had refused to interview him for a job. Mike is sentenced to 6 months' imprisonment. How would you use a treatment programme to prevent Mike from recidivism?

Types of treatment can be evaluated through comparisons to each other and the nature of the crimes or behaviours that they aim to change. Candidates can also use theories and explanations, such as whether a token economy programme can work effectively with offenders if their behaviour is the result of an MAOA gene. Supporting evidence can be used to evaluate treatment programmes and there are several psychological studies suitable for the two treatments considered here. Equally, candidates may wish to consider the practicalities of the programmes; for example, whether a token economy would work outside prison once the offender is released. Candidates may want to determine how likely the offender is to engage in pro-social behaviours as a result of the treatment.

6.2 Studies

Candidates should understand the aims, procedures and findings (results and conclusions), and strengths and weaknesses of:

6.2.1 Bandura, Ross and Ross (1961) Transmission of Aggression through Imitation of Aggressive Models

6.2.2 Charlton et al. (2000) Children's Playground Behaviour Across Five Years of Broadcast Television: A Naturalistic Study in a Remote Community

Study One

Bandura, Ross and Ross (1961) Transmission of Aggression through Imitation of Aggressive Models.

Aim(s)

The study had several aims. The main aim was to see if children will imitate aggressive and non-aggressive role model behaviour, even if they are not rewarded for it. The study also aimed to see if the children would be more likely to copy same-sex role models than opposite-sex role models and to see if boys would be more aggressive than girls, particularly if exposed to the aggressive male role model condition.

Procedure

Sample: There were 72 children (36 were boys and 36 were girls), all aged between 37 and 69 months old and all from Stanford University nursery school. Two adults (one male and one female) acted as the role models.

The participants were divided into eight sub-groups consisting of six participants in each group and a control group of 24 participants:

- Half of the experimental participants watched an aggressive role model:
 - six boys watched male aggressive role model behaviour
 - six boys watched female aggressive role model behaviour
 - six girls watched male aggressive role model behaviour
 - six girls watched female aggressive role model behaviour.
- Half of the experimental participants watched a non-aggressive role model:
 - six boys watched male non-aggressive role model behaviour
 - six boys watched female non-aggressive role model behaviour
 - six girls watched male non-aggressive role model behaviour
 - six girls watched female non-aggressive role model behaviour.
- The control group of 24 watched no role model behaviour.

The participants were all rated for aggression before the study based on their interactions in the nursery school, thus the groups were also matched to make sure that one did not have more aggressive children in it than another.

In the experimental conditions, the participants were taken into a room individually and the role model was invited by the researcher to play a game. The participant played with familiar toys (similar to the nursery school toys) in a separate part of the room to the role model.

The role model in the non-aggressive condition 'played' with the other toys and did not play with the Bobo doll. The role model in the aggressive condition then spent their time 'playing' by being aggressive towards a Bobo doll.

In order to enable observers of the participants to identify imitated behaviour, the role model was aggressive in specific ways that would be suitably novel so they could be identifiable as imitative behaviour; for example, hitting the Bobo doll with a mallet, pushing it down and sitting on it, punching it in the nose or throwing it in the air. These were accompanied with verbally aggressive comments such as 'kick him'.

After 10 minutes, the experimenter entered the room to take the participant to another room to play. Prior to playing elsewhere, the participant was subjected to mild aggression arousal and then went to the room with more toys. After the participant became engaged with the new toys, the experimenter moved to the other side of the room to do inconspicuous tasks such as paperwork and did not interact with the participant.

The participant played in this room for 20 minutes. Their behaviour was observed through a one-way mirror at 5-second intervals and rated in terms of imitative aggression; for example, hitting the Bobo doll with the mallet.

Results

Participants in the aggressive groups reproduced more physical and verbal aggressive behaviour than those in the non-aggressive groups.

Boys imitated more physical aggression than girls. There was no significant difference in the imitation of verbal aggression between the sexes.

Boys imitated more physical and verbal aggression after being exposed to the male aggressive role model than to the female aggressive role model.

Participants in the non-aggressive conditions engaged in significantly more non-aggressive play activities or sat quietly.

Conclusions

Exposure to aggressive adult role models may serve to weaken inhibitory responses in children and increase the likelihood that they will give aggressive reactions. Children appear to learn by imitation and this seems more likely if the adult role model is male, regardless of whether the child is male or female.

Candidates may be asked to consider the following issues when **evaluating** studies:

- validity
- reliability
- generalisability
- ethics
- objectivity
- subjectivity.

Information for centres

It is recommended that, wherever possible, centres combine the use of the summary of studies resource with the original study. However, where studies are not freely available or easily accessible, the summary resource is designed to help provide key starting points to enable teachers to deliver the content.

Study Two

Charlton et al. (2000) Children's Playground Behaviour Across Five Years of Broadcast Television: A Naturalistic Study in a Remote Community.

Aim(s)

Charlton et al. aimed to investigate the impact of television on the social behaviour of young children.

Procedure

Background: St Helena had a recorded population of 5644 (in 1994) and until 1994 the people living there did not have any broadcast television.

Sample: a random sample of the school population of children aged between 3 and 8 years old was used. The number of children in the school was approximately 160.

Four months prior to the introduction of television in 1994, the free-play behaviour of children was video-recorded during morning, lunch and afternoon play over a two-week period. This was repeated several years later in 2000. In total, 256 minutes of video recordings were taken in 1994 and 344 minutes of recordings in 2000.

The video cameras were located in the playgrounds and during the recordings the children and staff continued as they normally would with their daily routines. The data gathered from the video recordings was coded using eight selected items for pro-social and anti-social behaviours taken from the PBOS (Playground Behaviours Observation Scale), which includes 26 commonly seen playground behaviours.

Inter-coder reliability was implemented through independent coders who then compared and discussed their coding for every 60-second interval of the video recordings.

Behaviour was measured using the number of anti-social and pro-social behaviours from the eight PBOS items that had been coded in sets of 30-minute time frames before and after the introduction of broadcast television. This gave eight 30-minute frames to compare for pre- and post-television.

Results(s)

Data was analysed based on the mean number of the eight PBOS anti- and pro-social behaviours identified in each of the eight 30-minute time frames. The eight PBOS behaviours over the eight 30-minute time frames gave a total of 64 items that could be compared.

- Only 9 of the 64 comparisons were statistically significant.
- 2 of these 9 showed a statistically significant decrease in anti-social behaviour in the post-television phase compared to the pre-television phase.
- 5 of these 9 showed a statistically significant decrease in pro-social behaviour in the post-television phase compared to the pre-television phase.
- 2 of these 9 showed a statistically significant increase in pro-social behaviour in the post-television phase compared to the pre-television phase.

Significant differences were found between girls' and boys' levels of anti-social behaviour, with boys committing nearly four times more anti-social acts.

Pro-social behaviour took place approximately twice as much as anti-social behaviour.

Conclusions

Charlton et al. did not draw conclusions regarding the behaviour changes and individual television viewing as this was not studied, however, their data does indicate that over the 5.3 years from the introduction of television in 1994 to the observation in 2000, little change in pro- or anti-social behaviour had occurred.

They also concluded that the close-knit community of the island, where there was evidence of being vigilant and supervising the behaviour of children, may have contributed to children's good behaviour. Children commented that everyone watches them and knows them, so they had to behave.

Therefore, television did not appear to influence behaviours such as hitting, fighting, pushing or kicking. They do suggest, however, that boys are more anti-social in their play than girls but this does not appear to be related to television.

Candidates may be asked to consider the following issues when **evaluating** studies:

- validity
- reliability
- generalisability
- ethics
- objectivity
- subjectivity.

Information for centres

It is recommended that, wherever possible, centres combine the use of the summary of studies resource with the original study. However, where studies are not freely available or easily accessible, the summary resource is designed to help provide key starting points to enable teachers to deliver the content.

6.3 Issues and debates

The issues and debates content delivered in each compulsory topic, including research methods, is designed to enable candidates to understand the wider issues in psychology that underpin psychological knowledge and research.

Issues and debates will be specifically assessed in **Paper 1** through an extended open-response question.

The inclusion of '**the contribution of psychology to an understanding of the individual**' has been placed within the compulsory topic area of *development* through morality.

The inclusion of '**reductionism/holism**' has been placed within the compulsory topic area of *memory*.

The inclusion of '**nature/nurture**' has been placed within the compulsory topic area of *psychological problems*.

The inclusion of '**how psychological knowledge and ideas change over time and how these inform our understanding of behaviour**' has been placed within the compulsory topic area of the *brain and neuropsychology*.

The inclusion of '**the contribution of psychology to an understanding of individual, social and cultural diversity**' has been placed within the compulsory topic area of *social influence*.

The inclusion of '**develop an understanding of ethical issues in psychology**' has been placed within the compulsory topic area of *research methods* because it allows for links to be made across all research methodology.

Candidates can, however, draw upon issues and debates in their evaluations and extended open essays across each topic area (compulsory and/or optional), and while this is not an expected feature of responses, it may – if appropriate, accurate and relevant – be creditworthy.

For example, if they chose to evaluate biological explanations of criminal behaviour drawing from an accurate understanding of reductionism then this can be an acceptable response.

Another example may involve candidates who wish to draw upon ethical considerations when evaluating key studies.

Resources and references

Studies

6.2.1 Bandura, Ross and Ross (1961) Transmission of Aggression through Imitation of Aggressive Models

<http://www.all-about-psychology.com/support-files/transmission-of-aggression-through-imitation-of-aggressive-models.pdf> (reprint)

http://www.miamikillianhs.com/ourpages/auto/2011/9/28/55941483/AICE%20Devel_%20Apr_%20Bandura%20aggression%20study.html (reprint)

6.2.2 Charlton et al. (2000) Children's Playground Behaviour Across Five Years of Broadcast Television: A Naturalistic Study in a Remote Community

https://www.researchgate.net/profile/Lorraine_Whitmarsh/publication/233466575_Children's_playground_behaviour_across_five_years_of_broadcast_television_A_naturalistic_study_in_a_remote_community/links/55cca17308aea2d9bdce4870.pdf

Research into criminal and anti-social behaviour

Sources suggested here are additional guidance for centres to aid with teaching resources and ideas. These are not compulsory components and centres should select delivery content as appropriate to their candidates. Centres can draw upon any research evidence to support evaluations and explanations of topic areas. This list is not exhaustive.

Learning theories

Skinner (1948) Superstition in the Pigeon

<http://psychclassics.yorku.ca/Skinner/Pigeon/>

'Skinner Box' and operant conditioning

<http://study.com/academy/lesson/skinner-box-experiment-theory-quiz.html#lesson>

Operant conditioning

<https://www.boundless.com/psychology/textbooks/boundless-psychology-textbook/learning-7/operant-conditioning-47/basic-principles-of-operant-conditioning-skinner-197-12732/>

Social learning theory

<https://www.psychologytoday.com/basics/social-learning-theory>

Biological explanations

Eysenck personality types summary resource

http://www.psychotron.org.uk/newResources/criminological/A2_AQB_crim_EysenckTheory.pdf

Cale (2006) A quantitative review of the relations between the "Big 3" higher order personality dimensions and antisocial behavior

http://psych.colorado.edu/~carey/courses/psyc5112/readings/psn_eysenckantisocial_cale.pdf

Brunner et al. (1993) Abnormal behavior associated with a point mutation in the structural gene for monoamine oxidase A

https://www.researchgate.net/publication/14988465_Abnormal_Behavior_Associated_with_a_Point_Mutation_in_the_Structural_Gene_for_Monoamine_Oxidase_A

'Dutch Family' genetic example article

<http://discovermagazine.com/1993/oct/aviolenceinthebl293/>

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Raine et al. (1997) Brain abnormalities in murderers indicated by positron emission tomography

<http://www.sciencedirect.com/science/article/pii/S0006322396003629>

McDermott et al. (2008) Monoamine oxidase A gene (MAOA) predicts behavioral aggression following provocation

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2650118/>

Brendgen et al. (2005) Examining genetic and environmental effects on social aggression: A study of 6-year-old twins

<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2005.00887.x/abstract?deniedAccessCustomisedMessage=&userIsAuthenticated=false>

Teacher resource sharing

Further suggested resources can be found in the 'Getting Started' publication, where a scheme of work has been provided.

<http://www.psychotron.org.uk>

<http://www.psychteacher.co.uk>

<http://www.resourcd.com>

Teacher and student resource sites

<http://www.simplypsychology.org/> – this website gives an overview of many of the key areas.

<https://www.psychologytoday.com/> – this is an online magazine (with an option to subscribe) that brings psychological theories into modern, contemporary issues.

<https://play.google.com/store/search?q=psychology%20free%20books&c=books&hl=en> – this site has a number of free short books about key areas of psychology.

<http://www.open.edu/openlearn/body-mind/psychology> – The 'OpenLearn' programme offers freely accessible resources provided by the Open University.

<http://allpsych.com/> – a useful site with books, articles and summaries of some of the key concepts.

<https://www.youtube.com/playlist?list=PL8dPuuaLjXtOPRKzVLY0jJY-uHOH9KVU6> – Psychology 'Crash Course' is a YouTube channel that provides 40 short overviews of psychological issues.

<http://www.bbc.co.uk/programmes/b008cy1j> – 'BBC Mind Changers' is a series of radio episodes (that can also be downloaded) about key psychologists, their work, and the development of psychology over time.

<http://www.bbc.co.uk/programmes/b006qxx9> – 'BBC In the Mind' is a series of radio episodes that focus on the human mind using the application of psychological concepts and theories.

**All weblinks included here have been checked as active at publication, however the nature of online resources is that they can be removed or replaced by webhosting services and so it cannot be guaranteed that these sites will remain available throughout the life of the qualification.*