AQA Psychology for A Level Year 2 Revision Guide 2nd Edition Knowledge Check answers

PLEASE NOTE: This document contains suggested model answers that would achieve a good mark if provided in an exam. They are designed to help guide and instruct you but should not be considered definitive or the only answers you could give.

Chapter 1 Approaches in Psychology

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1. The first systematic experimental attempt to study the mind by breaking up conscious awareness into basic structures of thoughts, images and sensations. Isolating the structure of consciousness in this way is called *structuralism*.

2. In 1879, Wundt opened the first experimental psychology lab with the aim of describing the nature of human consciousness (the 'mind'). He pioneered the method of introspection – the first attempt to study the mind by breaking up conscious awareness into basic structures of thoughts, images and sensations. Isolating the structure of consciousness in this way is called *structuralism*. The same standardised instructions were given to all participants so procedures could be repeated (replicated). For instance, participants were given a ticking metronome and they would report their thoughts, images and sensations, which were then recorded.

Wundt recorded the introspections within a controlled lab environment and all participants were tested in the same way. For this reason, Wundt's research can be considered a forerunner to the later scientific approaches in psychology that were to come. Other aspects of this research would be considered unscientific, however. Wundt relied on participants self-reporting their 'private' mental processes. Such data is subjective and participants may not have wanted to reveal some of the thoughts they were having. Participants would also not have had exactly the same thoughts every time, so establishing general principles would not have been possible (one of the key aims of science).

3. Watson (1913) argued that introspection was subjective, in that it varied from person to person. According to the behaviourist approach, 'scientific' psychology should only study phenomena that can be observed and measured. B.F. Skinner (1953) brought the language and rigour of the natural sciences into psychology. The behaviourists' focus on learning, and the use of carefully controlled lab studies, would dominate psychology for the next few decades.

Many claim that a scientific approach to the study of human thought and experience is not possible, nor is it desirable, as there are important differences between the subject matter of psychology and the natural sciences. Also, there are approaches in psychology that employ methods that are much less rigorous and controlled than the behaviourist approach – such as the humanistic and psychodynamic approaches which rely on more subjective methods such as case studies.

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1. Classical conditioning is a form of learning in which a neutral stimulus (e.g. bell) can come to elicit a new learned response (conditioned response, CR) through association.

2. Rats and pigeons were placed in specially designed cages (Skinner boxes). When a rat activated a lever (or a pigeon pecked a disc) it was *rewarded* with a food pellet. A desirable consequence led to behaviour being repeated. If pressing a lever meant an animal avoided an electric shock, the behaviour would also be repeated.

3. Positive reinforcement – receiving a reward when behaviour is performed – makes it more likely to be repeated. Thus a child could be encouraged to come at 9pm by being allowed to stay out until 10pm at the weekend if they do.

Negative reinforcement – when an animal or human produces behaviour that avoids something unpleasant. Before the child leaves the house they could be warned that if they are not in by 9pm, they will be grounded for the rest of the week.

4. The behaviourist approach is only concerned with studying behaviour that can be observed and measured. It is not concerned with mental processes of the mind. *Introspection* was rejected by behaviourists as its concepts were vague and difficult to measure. Behaviourists tried to maintain more control and objectivity within their research and relied on lab studies to achieve this. They also suggest that the processes that govern learning are the same in all species, so animals (e.g. rats, cats, dogs and pigeons) can replace humans as experimental subjects.

Pavlov introduced the concept of classical conditioning by training dogs to salivate at the sound of a bell. Pavlov showed how a neutral stimulus (bell) can come to elicit a new learned response (conditioned response) through association – by presenting the bell and food together on several occasions.

Skinner placed rats and pigeons in specially designed cages (Skinner boxes). When a rat activated a lever (or a pigeon pecked a disc) it was *rewarded* with a food pellet. A desirable consequence led to behaviour being repeated. If pressing a lever meant an animal avoided an electric shock, the behaviour would also be repeated. This is operant conditioning – behaviour is shaped and maintained by its consequences.

One strength of behaviourism is that it uses well-controlled research. The approach has focused on the careful measurement of observable behaviour within controlled lab settings. Behaviourists have broken behaviour down into stimulus–response units and studied causal relationships. This suggests that behaviourist experiments have scientific credibility.

However, this approach may oversimplify learning and ignore important influences on behaviour (e.g. thought). Other approaches (e.g. social learning and cognitive) incorporate mental processes. This suggests learning is more complex than just what we can observe.

Another strength is behaviourist laws of learning have real-world application. The principles of conditioning have been applied to a broad range of real-world behaviours and problems. Token economy systems reward appropriate behaviour with tokens that are exchanged for privileges (operant conditioning). These are successfully used in prisons and psychiatric wards. This increases the value of the behaviourist approach because it has widespread application.

One limitation is behaviourism is a form of environmental determinism. The approach sees all behaviour as determined by past experiences that have been conditioned and ignores any influence that free will may have on behaviour. Skinner suggested that free will was an illusion. When something happens we may think, 'I made the decision to do that' but our past conditioning

determined the outcome. This is an extreme position and ignores the influence of conscious decision-making processes on behaviour (as suggested by the cognitive approach).

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1. Children are more likely to imitate the behaviour of people with whom they identify. Such role models are similar to the observer, tend to be attractive and have high status. For instance, a little boy may identify with Justin Bieber because of his popularity, attractiveness and boundless talent.

2. In a controlled observation, children watched either: an adult behaving aggressively towards a Bobo doll; or an adult behaving non-aggressively towards a Bobo doll. When given their own doll to play with, the children who had seen aggression were much more aggressive towards the doll. This suggests that children may learn aggressive behaviour through observation and imitation of adult role models.

3. To learn to bake a cake a child must first pay attention to the actions of its mother. The child must store the sequence of events in memory (retention) – the ingredients, lining the cake tin, etc. The child must be capable of reproducing the behaviour – they must have access to the correct utensils and be physically capable of imitating the actions. Finally, the child must be motivated to reproduce the behaviour. They may have observed cake-making behaviour being rewarded in the past – such as the look on their mum's happy face when tucking into what she has made (vicarious reinforcement).

4. Bandura agreed with the behaviourist approach that learning occurs through experience. However, he also proposed that learning takes place in a social context through *observation* and *imitation* of others' behaviour. Children (and adults) observe other people's behaviour and take note of its consequences. Behaviour that is seen to be rewarded (reinforced) is much more likely to be copied than behaviour that is punished. Bandura called this *vicarious reinforcement*.

Mediational (cognitive) processes play a crucial role in learning. There are four mediational processes in learning:
1. Attention – whether behaviour is noticed.
2. Retention – whether behaviour is remembered.
3. Motor reproduction – being able to do it.
4. Motivation – the will to perform the behaviour.

The first two processes relate to the learning of behaviour, the last two relate to the performance of behaviour (so, unlike behaviourism, learning and performance do not have to occur together).

Finally, *identification* with role models is also important. Children are more likely to imitate the behaviour of people with whom they identify. Such role models are similar to the observer, tend to be attractive and have high status.

One strength is SLT emphasises the importance of cognitive factors. Neither classical conditioning nor operant conditioning can offer a comprehensive account of human learning on their own because cognitive factors are omitted. Humans and animals store information about the behaviour of others and use this to make judgements about when it is appropriate to perform certain actions. This shows that SLT provides a more complete explanation of human learning than the behaviourist approach by recognising the role of mediational processes.

However, recent research suggests that observational learning is controlled by mirror neurons in the brain, which allow us to empathise with and imitate other people. This suggests that SLT may make too little reference to the influence of biological factors on social learning.

One limitation is SLT relies too heavily on evidence from contrived lab studies. Many of Bandura's ideas were developed through observation of children's behaviour in lab settings and this raises the problem of demand characteristics. The main purpose of a Bobo doll is to hit it. So, the children in those studies may have been behaving as they thought was expected. Thus, the research may tell us little about how children actually learn aggression in everyday life.

Another strength is SLT has real-world application. Social learning principles can account for how children learn from other people around them, as well as through the media, and this can explain how cultural norms are transmitted. This has proved useful in understanding a range of behaviours such as how children come to understand their gender role by imitating role models in the media. This increases the value of SLT as it can account for real-world behaviour.

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1. Schema are packages of information developed through experience. They act as a 'mental framework' for the interpretation of incoming information received by the cognitive system. Babies are born with simple motor schema for innate behaviours such as sucking and grasping, but as we get older, our schema become more sophisticated.

2. A theoretical model is a sequence of boxes and arrows, often represented as a flow diagram, which represents the passage of information through the cognitive system. The information processing approach suggests that information flows through a sequence of stages that include input, storage and retrieval, as in the *multi-store model of memory*. This model shows how sensory information is registered, then passed through STM and LTM where it is retained unless forgotten.

3. Cognitive neuroscience is the scientific study of the influence of brain structures (*neuro*) on mental processes (*cognition*). With advances in brain-scanning technology in the last twenty years, scientists have been able to describe the neurological basis of mental processing. This involves pinpointing those brain areas/structures that control particular cognitive processes. This includes research in memory that has linked *episodic* and *semantic memories* to opposite sides of the prefrontal cortex in the brain. Scanning techniques have also proven useful in establishing the neurological basis of some disorders, e.g. the *parahippocampal gyrus* and OCD.

4. In direct contrast to the behaviourist approach, the cognitive approach argues that mental processes should be studied, e.g. studying perception and memory. Mental processes are 'private' and cannot be observed, so cognitive psychologists study them indirectly by making inferences (assumptions) about what is going on inside people's heads on the basis of their behaviour. Cognitive psychologists emphasise the importance of schema: packages of information developed through experience which act as a 'mental framework' for the interpretation of incoming information received by the cognitive system.

One strength is the cognitive approach uses scientific and objective methods. Cognitive psychologists have always employed controlled and rigorous methods of study, e.g. lab studies, in order to infer cognitive processes at work. In addition the two fields of biology and cognitive psychology come together (cognitive neuroscience) to enhance the scientific basis of study. This means that the study of the mind has established a credible, scientific basis.

However, the use of inference means cognitive psychology can occasionally be too abstract and theoretical. Also, research often uses artificial stimuli (such as word lists). Therefore, research on cognitive processes may lack external validity and may not represent everyday experience.

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Theoretical models are used to describe and explain how 'unseen' cognitive processes work. The information processing model suggests that information flows through the cognitive system in a sequence of stages that include input, storage and retrieval, as in the *multi-store model* of memory. The 'computer analogy' suggests similarities in how computers and human minds process information. For instance, the use of a central processor (the brain), changing of information into a useable code and the use of 'stores' to hold information.

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Another strength of the approach is the application to everyday life. The cognitive approach is dominant in psychology today and has been applied to a wide range of practical and theoretical contexts. For instance, artificial intelligence (AI) and the development of robots, the treatment of depression and improving eyewitness testimony. This supports the value of the cognitive approach.

One limitation is that the approach is based on machine reductionism. Although there are similarities between the operations of the human mind and computers (inputs-outputs, central processor, storage systems), the computer analogy has been criticised. For instance, emotion and motivation have been shown to influence accuracy of recall, e.g. in eyewitness accounts. These factors are not considered within the computer analogy. This suggests that machine reductionism may weaken the validity of the cognitive approach.

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1. The mind and body are one and the same. From the biological approach, the mind lives in the brain – meaning that all thoughts, feelings and behaviour ultimately have a physical basis. This is in contrast to the cognitive approach, which sees the mind as separate from the brain.

Behaviour has a neurochemical and genetic basis. Neurochemistry explains behaviour, for example low levels of serotonin in OCD. Psychological characteristics (e.g. intelligence) are inherited in the same way as physical characteristics (e.g. height).

2. A person's genotype is their actual genetic make-up. Phenotype is the way that genes are expressed through physical, behavioural and psychological characteristics. The expression of genotype (phenotype) is influenced by environmental factors. For example, PKU is a genetic disorder (genotype), the effects of which can be prevented by a restricted diet (phenotype).

3. Any genetically determined behaviour that enhances survival and reproduction will be passed on to future generations. Such genes are described as adaptive and give the possessor and their offspring advantages. For instance, attachment behaviours in newborns promote survival and are therefore adaptive and naturally selected.

4. According to the biological approach, everything psychological is at first biological. If we want to fully understand human behaviour we must look to biological structures and processes within the body, such as genes and neurochemistry.

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Twin studies are used to investigate the genetic basis of behaviour. Concordance rates between twins are calculated – the extent to which twins share the same characteristic. Higher concordance rates among identical (monozygotic, MZ) twins than non-identical (dizygotic, DZ) twins is evidence of a genetic basis.

One strength of the biological approach is its real-world application. Understanding of neurochemical processes in the brain has led to the use of psychoactive drugs to treat serious mental disorders. For example, drugs that treat clinical depression increase levels of the neurotransmitter serotonin at the synapse and reduce depressive symptoms. This means that people with depression are able to manage their condition and live a relatively normal life, rather than being confined to hospital.

However, antidepressant drugs do not work for everyone. Cipriani *et al*. (2018) compared 21 antidepressant drugs and found wide variations in their effectiveness. This challenges the value of the biological approach as it suggests that brain chemistry alone may not account for all cases of depression.

Another strength is the biological approach uses scientific methods. In order to investigate both genetic and neurochemical factors, the biological approach makes use of a range of precise and objective methods. These include scanning techniques (e.g. fMRI), which assess biological processes in ways that are not open to bias. This means that the biological approach is based on objective and reliable data.

One limitation is that biological explanations are determinist. Biological explanations tend to be determinist in that they see human behaviour as governed by internal, genetic causes over which we have no control. However, the way genotype is expressed (phenotype) is heavily influenced by the environment. Not even genetically identical twins look and think exactly the same. This suggests that the biological view is too simplistic and ignores the mediating effects of the environment.

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1. The unconscious mind is a vast storehouse of biological drives and instincts that have been repressed during childhood. The psychodynamic approach explains all behaviour as determined by unconscious conflicts over which we have no control. Even something as apparently random as a 'slip of the tongue' is driven by unconscious forces and has deep symbolic meaning – so mistakenly describing our partner's new dress as 'fattening' rather than 'flattering' may reveal our true feelings!

2. Defence mechanisms are used by the Ego to keep the Id 'in check' and reduce anxiety. *Denial* is when we refuse to acknowledge reality so someone may continue to turn up for work even though they have lost their job.

3. The oral stage occurs from 0 to 1 years and the focus of pleasure is the mouth; the mother's breast is the object of desire.

4. The psychodynamic approach suggests that the unconscious mind has an important influence on behaviour. Freud proposed that the mind is made up of the conscious mind – what we are aware of at any one time; the preconscious mind – we may become aware of thoughts through dreams and 'slips of the tongue'; the unconscious mind – a vast storehouse of biological drives and instincts that influence our behaviour.

Freud also introduced the tripartite structure of personality and claimed that the dynamic interaction between the three parts determines behaviour. The Id is the primitive part of the personality which operates on the pleasure principle and demands instant gratification. The Ego works on the reality principle and is the mediator between the Id and Superego. Finally, the Superego is our internalised sense of right and wrong. It is based on the morality principle and punishes the ego through guilt for wrongdoing.

Freud proposed five psychosexual stages that determine adult personality. Each stage is marked by a different conflict that the child must resolve to move on to the next. Any conflict that is unresolved leads to fixation where the child becomes 'stuck' and carries behaviours associated with that stage through to adult life. For instance, the Oedipus complex is an important psychosexual conflict occurring at the phallic stage which influences gender role and the formation of moral values.

One strength of the psychodynamic approach is it introduced psychotherapy. Freud's psychoanalysis was the first attempt to treat mental disorders psychologically rather than physically. Psychoanalysis claims to help clients deal with everyday problems by providing access to their unconscious, employing techniques such as dream analysis. Therefore psychoanalysis is the forerunner to many modern-day 'talking therapies' (e.g. counselling). The humanistic approach also introduced a form of talking therapy (client-centred therapy), but unlike psychoanalysis, it deals with the concrete problems of everyday life rather than unconscious conflicts.

Although psychoanalysis is claimed successful for clients with mild neuroses, it is inappropriate, even harmful, for more serious mental disorders (such as schizophrenia). Therefore Freudian therapy (and theory) may not apply to mental disorders where a client has lost touch with reality.

Another strength is the psychodynamic approach has explanatory power. Freud's theory is controversial and often bizarre, but it has had huge influence on Western contemporary

thought. It has been used to explain a wide range of behaviours (moral, mental disorders) and drew attention to the influence of childhood on adult personality. This suggests that, overall, the psychodynamic approach has had a positive influence on psychology and modern-day thinking. This contrasts with the humanistic approach which has been described as a loose set of abstract concepts and has had limited application in psychology and society as a whole.

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1. A parent who sets boundaries on their love for their child (conditions of worth) by claiming 'I will only love you if...' is storing up psychological problems – related to their sense of self-worth – for that child in future. For instance, a father may say to his teenage daughter, 'I will only love you if you stop seeing that boy'.

2. Self-actualisation refers to the innate tendency that each of us has to want to achieve our full potential and become the best we can possibly be. In Maslow's hierarchy of needs the four lower levels (deficiency needs) must be met before the individual can work towards self-actualisation – a growth need.

However, the concept of self-actualisation is a vague, abstract idea that is difficult to test – what exactly is someone's potential? This means that the humanistic approach, and the concept of self-actualisation, lacks empirical evidence to support it.

3. In Maslow's hierarchy of needs the four lower levels (deficiency needs such as food, water and safety) must be met before the individual (baby, child or adult) can work towards self-actualisation – a growth need. Self-actualisation refers to the innate tendency that each of us has to want to achieve our full potential and become the best we can possibly be.

One strength is that Maslow's hierarchy is anti-reductionist. Humanistic psychologists reject any attempt to break up behaviour and experience into smaller components. They advocate holism – the idea that subjective experience can only be understood by considering the whole person (their relationships, past, present and future, etc.). This approach may have more validity than its alternatives by considering meaningful human behaviour within its real-world context.

4. In Maslow's hierarchy of needs the four lower levels (deficiency needs such as food, water and safety) must be met before the individual (baby, child or adult) can work towards self-actualisation – a growth need. Self-actualisation refers to the innate tendency that each of us has to want to achieve our full potential and become the best we can possibly be.

One strength is that Maslow's hierarchy is anti-reductionist. Humanistic psychologists reject any attempt to break up behaviour and experience into smaller components. The hierarchy suggests there are multiple needs that must be met before humans can meet their potential. This approach has validity as it considers meaningful human behaviour within its real-world context.

However, humanistic psychology has relatively few concepts that can be reduced to single variables and measured and this applies to Maslow's hierarchy too. Self-actualisation is a hypothetical concept that cannot be observed or measured in a laboratory in the same way that ideas within, say, the behaviourist approach can be. This means that Maslow's hierarchy and humanistic psychology in general is short on empirical evidence to support its claims.

5. Humanistic psychologists reject attempts to establish scientific principles of human behaviour. According to the approach, we are all unique, and psychology should concern itself with the study of

subjective experience rather than general laws – a person-centred approach. The concept of self-actualisation is central and refers to the innate tendency that each of us has to want to achieve our full potential and become the best we can possibly be. In Abraham Maslow's hierarchy of needs the four lower levels (deficiency needs) must be met before the individual can work towards self-actualisation – a growth need.

Carl Rogers argued that personal growth requires an individual's concept of self to be congruent with their ideal self (the person they want to be). If too big a gap exists between the two selves, the person will experience a state of incongruence and self-actualisation isn't possible.

In Rogers' client-centred therapy (counselling) the aim is to increase feelings of self-worth and reduce incongruence between the self-concept and the ideal self. An effective therapist should provide the client with three things: genuineness, empathy and unconditional positive regard (which the client may not have received from their parents) so as to remove the psychological barriers that may be preventing self-actualisation.

One strength is that humanistic psychology is anti-reductionist. Humanistic psychologists reject any attempt to break up behaviour and experience into smaller components. They advocate holism – the idea that subjective experience can only be understood by considering the whole person (their relationships, past, present and future, etc.). This approach may have more validity than its alternatives by considering meaningful human behaviour within its real-world context.

However, humanistic psychology, unlike behaviourism, has relatively few concepts that can be reduced to single variables and measured. This means that humanistic psychology in general is short on empirical evidence to support its claims.

Another strength is the approach is a positive one. Humanistic psychologists have been praised for promoting a positive image of the human condition – seeing people as in control of their lives and having the freedom to change. Freud saw human beings as slaves to their past and claimed all of us existed somewhere between 'common unhappiness and absolute despair'. Therefore, humanistic psychology offers a refreshing and optimistic alternative.

One limitation is that the approach may be guilty of a cultural bias. Many humanistic ideas (e.g. self-actualisation), would be more associated with individualist cultures such as the United States. Collectivist cultures such as India, which emphasise the needs of the group, may not identify so easily with the ideals and values of humanistic psychology. Therefore, it is possible that the approach does not apply universally and is a product of the cultural context within which it was developed.

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1. Both approaches offer psychological therapies that are designed to deal with anxiety-related disorders. Freud saw these as emerging from unconscious conflicts and overuse of defence mechanisms, whereas humanistic therapy is based on the idea that reducing incongruence will stimulate personal growth.

2. Behaviourists suggest that all behaviour is environmentally determined by external forces that we cannot control. Skinner famously said that free will is an 'illusion' and even behaviour that appears freely chosen is the result of our reinforcement history. Although social learning theorists agree that we are influenced by our environment to some extent, they also believe that we exert some influence upon it (*reciprocal determinism*). They also place more emphasis on cognitive factors suggesting that we have some control over when we perform particular behaviours.

3. In terms of views on development, the cognitive approach proposes stage theories of child development, particularly the idea of concept formation (schema) as children get older. This is in some ways similar to the biological approach, which suggests that genetically determined maturational changes influence behaviour, for example cognitive/intellectual development. So cognitive advances are not possible until the child is physiologically and genetically 'ready'.

The cognitive approach recognises that many of our information-processing abilities are innate, but are constantly refined by experience. The biological approach would place less emphasis on the influence of experience and instead claims that 'anatomy is destiny': behaviour stems from the genetic blueprint we inherit from our parents. This is an extreme nature approach and distinct from the interactionist approach offered by the cognitive approach.

The cognitive approach advocates machine reductionism in its use of the computer analogy to explain human information processing. This ignores the influence of emotion and motivation on behaviour. The biological approach is also reductionist and explains human behaviour at the level of the gene or neuron – underplaying 'higher level' explanations at a cultural or societal level.

Finally, the cognitive approach has led to cognitive therapies such as cognitive behaviour therapy (CBT) which has been used in the treatment of depression and aims to eradicate faulty thinking. In contrast, psychoactive drugs that have been developed by biological psychologists to regulate chemical imbalances in the brain have revolutionised the treatment of mental disorders. Although such drugs are relatively cheap and fast-acting, they may not be as effective in the long term as cognitive therapies which lead to greater insight.