Answers

Chapter 1: Social influence

Types of conformity and explanations for conformity (pages 8–9)

1. D

2. Normative social influence is a form of influence where someone conforms with the majority’s behaviour because they want to gain approval or avoid social disapproval; for example, laughing at a joke you don’t think is funny, just because everyone else is. Informational social influence is where someone conforms because they want to be correct, so look to others for the answer; for example, watching colleagues carefully to see how they dress, to make sure you are dressing as formally as you should be at work.

3. a. The aim of the study was to discover the reasons why children conform to their peers.
   b. An aim is a statement of what the researcher intends to find out, whereas a hypothesis is a precise and testable statement about the assumed relationship between variables.
   c. One disadvantage of an opportunity sample is that it is possible that the sample will be biased, as the people who are around at the time may not be representative of all people, and so any results cannot be generalised to the target population.
   d. A sample is the people who actually participate in the study, whereas a population is the broader group of people from whom the sample is drawn and to whom the researcher intends to generalise a study’s results.
   e. One strength of allowing participants to talk freely about their experiences is that it allows them to expand on their answers. This produces data that can be rich, detailed, and sometimes unexpected. One limitation is that respondents who are less literate may find the questions difficult, and may only give very brief answers.
   f. One strength of content analysis is that it tends to have high ecological validity, because it is based on observations of what people actually do or say. One limitation is that observer bias can reduce the objectivity and validity of findings, because different observers may interpret the meaning of what has been done or said differently.
   g. She could ask another researcher to categorise the children’s answers using the same criteria: if the observations are reliable, there should be a strong positive correlation between the two researchers’ categories.
4. **Possible AO1 content:**

- One explanation for conformity is normative social influence. This is a form of influence where someone conforms with the majority’s behaviour because they want to gain approval or avoid social disapproval; for example, someone laughing at a joke they don’t think is funny, just because everyone else is.
- Another explanation for conformity is informational social influence. This is where someone conforms because they want to be correct, so looks to others for the answer; for example, if someone watches colleagues carefully to see how they dress, to make sure they are dressing as formally as they should be.

**Possible AO3 content:**

- One strength of the normative social influence explanation is that there is research support for it. For example, normative influence has been used to encourage people to engage in energy conservation behaviour. Schultz *et al.* (2008) found hotel guests reduced their towel use when told that 75 per cent of other guests reused their towels daily. This shows that people shape their behaviour out of a desire to fit in with a reference group.
- However, one problem with the normative social influence explanation is that its impact tends to be underestimated. Nolan *et al.* (2008) found that when people were asked about the factors they believed influenced their own energy consumption, they claimed that their neighbours’ behaviour had the least impact on their own behaviour. However, Nolan *et al.* found that, in reality, it actually had the strongest impact. This suggests the people rely on beliefs about what should motivate their behaviour, so under-detect the impact of normative influence.
- Research has supported the role of informational influence in shaping political opinion. For example, Fein *et al.* (2007) showed how judgments of candidate performance in US presidential debates could be influenced by knowledge of others’ reactions. Being shown the reactions of other participants on screen during the debate produced large shifts in judgments of the candidates’ performance, as predicted by this explanation.
- It is difficult to know when a person is subject to informational rather than normative influence. It is assumed that agreeing with the majority both in public and in private must indicate informational influence. However, it is also possible that the initial reason for complying was to fit in with the group (i.e. normative influence) and then, through self-perception of their own behaviour, the person accepts the position as their own.

**Variables affecting conformity (pages 10–11)**

1. **C**

2. 
   - Group size is how many confederates there are in Asch-type experiments. It may affect conformity by increasing or decreasing it. For example, Asch found that with more than three confederates, there were no further increases in conformity.
   - Unanimity is when all of the confederates give the same wrong answer. It may affect conformity by decreasing it. For example, Asch found conformity occurred 33 per cent of the time in the original study, but breaking the unanimity decreased conformity.
   - Task difficulty is when the correct answer is either more or less obvious. It may affect conformity by increasing or decreasing it. For example, Asch found making the task more difficult made conformity more likely.

3. 
   - The most relevant variable that affects conformity here is group size.
   - Reference to research findings showing the effect of group size (e.g. Asch found that with more than three confederates, there were no further increases in conformity).
   - Ruth is more likely to conform in her Maths class because the group size is larger than her Chemistry class.
4.

Possible AO1 content:
- On 12 critical trials, participants conformed 33 per cent of the time.
- Group size affects the level of conformity, but only up to a point. For example, Asch found that with more than three confederates, there were no further increases in conformity.
- Unanimity increases conformity. For example, Asch found conformity occurred 33 per cent of the time in the original study, but breaking the unanimity decreased conformity.
- Task difficulty affects levels of conformity. For example, Asch found making the task more difficult made conformity more likely.

Possible AO3 content:
- Questions about whether the findings are still true today, e.g. Perrin and Spencer’s findings when the study was redone in the 1980s. This suggests Asch’s findings lack temporal validity.
- The limited range of majority sizes suggests that we know very little about the effect of a larger majority on conformity rates.
- Cultural differences in conformity, e.g. Smith et al. found the average conformity rate in individualistic cultures was 25 per cent, while the average conformity rate in collectivistic cultures was 37 per cent.
- Not all participants in Asch's experiments conformed, suggesting a majority influence is not as strong as it might seem.

Conformity to social roles (pages 12–13)

1. B

2.
- Zimbardo’s Stanford Prison Experiment. The basic set-up.
- The uniforms and roles of the guards/prisoners.
- The guards’ growing tyranny towards the prisoners.
- The increasing passivity of the prisoners.
- Study abandoned early.

3.
- a. 150
- b. 90 per cent (135/150 x 100)
- c. 19 per cent (28/150 x 100)
- d. Some students might have already been familiar with the study. The researcher could have asked them before the study began if they were familiar with Zimbardo’s prison simulation study. Those saying ‘yes’ would have been excluded from the study.
- e. Mode
- f. In some data sets there is no mode (or there may be more than one mode). However, the mean and median always produce a single descriptive statistic.
- g. Nominal (or categorical)
- h. The observations are independent of each other OR they are looking for a difference.
- i. Even though they only read a description of Zimbardo’s study, most participants could correctly guess what its purpose and outcome were.

4.

Possible AO1 content:
- Zimbardo’s Stanford Prison Experiment. The basic set-up.
- The uniforms and roles of the guards/prisoners.
- The guards’ growing tyranny towards the prisoners. The increasing passivity of the prisoners. Study abandoned early.
Possible AO3 content:

- Real-world applications, e.g. Abu Grahib.
- The study did follow ethical guidelines, and Zimbardo claims there were no lasting effects.
- Conforming to social roles may not be automatic, as not all guards behaved sadistically.
- The presence of demand characteristics affects the internal validity of the study.
- The guards’ brutality may not be a natural consequence of their role and may be a result of the norms and values of their social identity.

Situational variables affecting obedience (pages 14–15)

1. B

2. Two from:
   - Proximity, e.g. obedience fell from 65 per cent to 21 per cent when the orders were phoned in.
   - Uniform, e.g. obedience fell from 65 per cent to 20 per cent when the experimenter’s lab coat was removed.
   - Location, e.g. obedience fell from 65 per cent to 48 per cent when the experiment was moved from a university laboratory to a privately rented office.

3. a. 26 (laboratory), 19 (run-down office). 65 x 40/100 (laboratory) 47.5 x 40/100 (run-down office).
   b. It is possible that the sample will be biased, as only certain people would respond to the advert. This could produce results that lack validity and cannot be generalised to the target population.
   c. Systematic sampling involves selecting every nth person (where n is any number). A stratified sample is one in which subgroups are identified according to their frequency in the population, and people are then randomly sampled from the subgroups.
   d. The purpose of a pilot study is to find out whether certain aspects of the design work before the study itself is carried out.
   e. Ecological validity refers to the degree to which a research finding can be generalised to other settings. Milgram found similar levels of obedience when participants were studied under laboratory conditions and in a real-world setting, and concluded that his laboratory findings could be generalised to other settings.
   f. Findings obtained at one time might not hold true at another time with different researchers or different participants. Therefore, research must be replicated before a finding can be accepted as well established.

4. Possible AO1 content:

   - Proximity, e.g. obedience fell from 65 per cent to 21 per cent when the orders were phoned in.
   - Uniform, e.g. obedience fell from 65 per cent to 20 per cent when the experimenter’s lab coat was removed.
   - Location, e.g. obedience fell from 65 per cent to 48 per cent when the experiment was moved from a university laboratory to a privately rented office.

Possible AO3 content:

- Supporting research lacks internal validity, e.g. Milgram’s participants didn’t believe the shocks were real.
- Situational variables in obedience affect both men and women, e.g. Milgram’s research or Blass’ meta-analysis.
- Situational variables may not apply to real-world atrocities, so may not be the only explanation for obedience.
- The supporting research is historically valid, e.g. Burger (2009) found almost identical levels to Milgram (1963).
Agentic state and legitimacy of authority (pages 16–17)

1. B

2. • The agentic state is when a person ‘blindly’ follows orders and considers responsibility to lie with the person giving the orders rather than with them.
   • The agentic state can be contrasted with the autonomous state. For example, when we are in an autonomous state, we see ourselves as responsible for our own behaviour.

3. • Research from, for example, Milgram.
   • The bank manager is seen as a legitimate authority as a reason for obedience.
   • The customer is not seen this way.

4. Possible AO1 content:
   • The agentic state: a person ‘blindly’ follows orders and considers responsibility to lie with the person giving the orders, rather than with themselves.
   • The perception of legitimate authority: people are more likely to obey someone who is considered to be in a position of social control in a given situation.

Possible AO3 content:
   • Legitimate authority can be used to justify hurting others in the real world, e.g. in the military.
   • The danger of accepting another person’s authority as legitimate, e.g. Tarnow’s research into aircraft accidents.
   • Plain cruelty may explain obedience better than agentic shift can, so obedience may be due to certain aspects of human nature rather than agentic control.
   • People can revert back to an autonomous state after being in an agentic state. For example, Lifton found doctors at Auschwitz showed a gradual and irreversible transition from caring professionals to individuals that carried out evil acts.
   • The agentic shift can explain other behaviours, e.g. bystander behaviour.

The Authoritarian Personality (pages 18–19)

1. C

2. (Specimen answer is supplied in the exam workbook.)

3. • Alice is arguing for an authoritarian personality.
   • The social context may be more important than personality factors.
   • Situational factors may be a better explanation of Aden’s obedience.

4. Possible AO1 content:
   • People with an authoritarian personality tend to see the world in black/white.
   • A specific personality type that is the result of a strict upbringing and scores highly on the F-Scale.
   • Altyemeyer’s right-wing authoritarianism.

Possible AO3 content:
   • A relationship between authoritarianism and obedience, e.g. Elms and Milgram found higher authoritarianism levels in 20 obedient participants in Milgram’s research, compared with 20 disobedient participants.
Research support from studies, e.g. Dambrun and Vatine found participants with a high right-wing authoritarianism score were more obedient.

People with right-wing views are more likely to obey, e.g. Begue et al. found that participants who defined themselves as being left-wing gave lower intensity (fake) shocks to another participant.

Social context may be more important than dispositional factors, e.g. Milgram found it was the specific social situation participants found themselves in that caused them to obey.

The role of education level in obedience and authoritarianism, e.g. Middendorp and Meloen found less-educated people are consistently more authoritarian than well-educated people.

Resistance to social influence (pages 20–21)

1. D

2.
   - An internal locus of control (LOC) is the belief that responsibility for your behaviour lies within yourself. People with an internal LOC believe what happens to them is largely a result of their own ability and effort.
   - However, an external LOC is the belief that responsibility for your behaviour is caused by events outside your control. People with an external LOC believe that external factors, such as other people or luck, are responsible for their behaviour.

3.
   - Social support: the perception that a person has help from others.
   - When one of the group agreed with what Joe thought, Joe was less likely to conform to the group.

4. Possible AO1 content:
   - Social support: the perception that a person has help from others.
   - Social support helps to break the unanimity of the majority.
   - People with an internal LOC believe what happens to them is largely a result of their own ability and effort.
   - People with an external LOC believe what happens to them is largely down to external factors, e.g. luck.

Possible AO3 content:
   - Real-world examples of social support, e.g. at Rossenstrasse.
   - Social support doesn’t have to be valid to be effective, e.g. Allen and Levine found conformity was reduced, even when the support was not particularly convincing.
   - There is a significant correlation between LOC and resisting social influence, e.g. Avtgis’ meta-analysis.
   - There is research support for the role of LOC in resisting social influence, e.g. Hutchins and Etsy found high internals are better at resisting coercion from others.
   - LOC doesn’t always help us to resist pressure to conform, e.g. Spector found a significant correlation between LOC and predisposition to normative social influence (NSI), but no such relationship between LOC and predisposition to informative social influence (ISI).

Minority influence (pages 22–24)

1. D

2.
   - Moscovici et al.’s ‘blue/green slides’ study.
   - A minority of two confederates consistently said an obviously blue slide was green. The majority were influenced around 8 per cent of the time.
• When the confederates were inconsistent, then the majority were influenced around 1 per cent of the time.

3.

a. An experiment is a research method where causal conclusions can be drawn because an independent variable has been deliberately manipulated to observe the causal effect on a dependent variable. However, correlations determine whether variables are linked, but do not allow causal conclusions about the relationship to be drawn.

b. A positive correlation is one in which an increase in scores on one variable is accompanied by an increase in scores on another variable. In a negative correlation, an increase in scores on one variable is accompanied by a decrease in scores on another variable.

c. A scattergram is the appropriate graphical representation to show the relationship between two sets of scores.

d. By recording the number of items on a council's list of recyclable items that were placed in a recycling bin over a one-year period: a larger number would indicate a greater commitment to recycling.

e. One benefit of the minority green movement has been to influence the majority about recycling. This has led to economic benefits, as the cost of sending refuse to landfill has been substantially reduced.

f. The researcher was looking for a relationship between two variables and the measurements she took were at least at the ordinal level.

g. Significant. This is because the calculated value (+0.700) is greater than the appropriate value in the table (+0.648).

h. Pearson's test

4.

Possible AO1 content:

• Minority influence is a form of social influence were members of the majority group change their beliefs, or behaviours, as a result of their exposure to a persuasive minority.

• Moscovici et al.'s blue/green slides study.

• The role of commitment, consistency and flexibility in minority influence.

Possible AO3 content:

• Research support for the role of flexibility in minority influence from studies, e.g. Nemeth and Brilmayer found confederates holding a minority view who compromised with the majority were more influential.

• There is a tipping point for commitment in minority influence, e.g. Xie et al. found 10 per cent of committed opinion holders was necessary to ‘tip’ a majority into accepting the minority’s position.

• It is difficult to convince people that dissenting minorities are valuable, so the opportunities for innovative thinking that minority influence brings are often lost.

• Better quality decisions can be made by numerical minorities, as dissenters liberate people to say what they believe and stimulate thought, even when they are wrong.

• People don’t process a minority’s message as deeply as the majority’s message, leading to a minority’s message being less influential than the position advocated by the majority.

Social influence processes in social change (pages 25–27)

1. C

2. (Specimen answer is supplied in the exam workbook.)

3.

a. Directional, because the researcher specified the direction of behaviour change (people would be less likely to continue with their behaviour).
b. Confidentiality. The participants were communicating personal and socially sensitive information about themselves and would trust that the information would be protected. This could be dealt with by guaranteeing that participants’ responses would be anonymous.

c. 5 per cent (1/20 x 100)

d. 4. It is the least frequently occurring sign.

e. Significant. The calculated value (4) is smaller than the relevant tabled value (5).

f. Nominal (or categorical), because participants are placed in one of three mutually exclusive categories.

g. Chi-squared

h. The researcher could study the transcripts of the interviews given by the participants and organise them into categories or themes. She could then look at whether particular themes emerged about why participants used their phones more, such as them being confident about being able to drive and text at the same time.

4.

Possible AO1 content:
- Majority influence, e.g. social norms interventions.
- Factors affecting minority influence, e.g. commitment, consistency and flexibility.
- The creation of a cognitive conflict.
- The augmentation principle and the snowball effect.

Possible AO3 content:
- The problem of social change only happening gradually and some minorities influencing the potential for social change rather than directing social change.
- Minority groups are often considered deviant, which limits their influence because the focus of the majority’s attention is the source of the message rather than the message itself.
- The boomerang effect in social norms interventions, e.g. Shultz et al. found a campaign was effective in lowering heavy electricity users’ consumption, but increased the consumption in those originally using less.
- Social change does not always happen after social norms interventions, e.g. DeJong found students did not lower their alcohol consumption or change their perceptions about student drinking levels after being given normative information correcting their misperception of drinking norms.
- The issue of behaviour being based more on what people think others do, which shows that when people’s misperceptions about others’ behaviour is corrected, positive changes in behaviour can occur.
Chapter 2: Memory

Short- and long-term memory (pages 28–29)

1. B

2. Jacobs studied the capacity of short-term memory (STM) using the forward digit span technique. He asked participants to listen to two digits then repeat them back. Then he asked them to do the same thing with three digits, four digits, and so on, until they could no longer get them right. Jacobs found that the average span for digits was 9.3 items and 7.3 items for letters. Most people have a forward digit span of 7+/-2 items.

3. (Specimen answer is supplied in the exam workbook.)

4. Peterson and Peterson conducted a study in which each participant was tested over eight trials. Participants were given a consonant syllable and a three-digit number (e.g. THX, 512) and asked to recall the consonant syllable after 3, 6, 9, 12, 15 or 18 seconds. During the retention interval, they had to count backwards from their three-digit number. They found that participants were, on average, 90 per cent correct over 3 seconds, 20 per cent correct after 9 seconds, and only 2 per cent correct after 18 seconds. This finding appears to show that the duration of STM is very short – less than 18 seconds if verbal rehearsal is prevented.

One strength of this research is that it is conducted under laboratory conditions. This means that there is a high level of control; for example, with participants given standardised instructions. It also means that it is possible to replicate the study, so we can be sure that the results are reliable.

However, a weakness of this research is that laboratories do not reflect real-world settings or situations. For example, the way STM was tested is artificial. Trying to memorise consonant syllables does not reflect most everyday memory activities where what we are trying to remember is meaningful. However, we do sometimes try to remember fairly meaningless things, such as groups of numbers (phone numbers) or letters (postcodes), so the study does have some relevance to everyday life.

The multi-store model of memory (pages 30–31)

1. B

2. • STM and long-term memory (LTM) are not separate stores, and Logie pointed out that STM actually relies on LTM, so cannot come ‘first’ as suggested in the multi-store model.
   • Furthermore, Ruchkin et al. found that there is more brain activity when participants recall real words, compared with when they recall pseudo-words. If recall of both of these kinds of words only involves STM, then brain activity should have been the same for both types of word.
   • This suggests that other areas of the brain are involved when real words are processed, and possibly that STM may actually just be a part of LTM.

3. • The multi-store model says that for information to enter LTM it needs to be rehearsed.
   • However, one criticism of the multi-store model (MSM) is that it overemphasises the role of rehearsal.
   • This can be seen when Jack says he is struggling to remember his lines, despite extensive rehearsal.
   • It can also be seen when Billie says she learned her lines quickly, seemingly without rehearsal.
4. **Possible AO1 content:**

- Information enters and goes to the sensory register, and if we pay attention it will be transferred to STM.
- STM has a capacity of 7 +/-2 items, and codes information acoustically.
- Information will stay in STM for around 18 seconds unless it is rehearsed.
- Rehearsed information will transfer to LTM, which has an unlimited capacity and duration, and codes information semantically.

**Possible AO3 content:**

- Research support or criticism from studies, e.g. Miller, Bahrick et al., or the case study of HM.
- STM and LTM are not separate stores, and Logie pointed out that STM actually relies on LTM, so cannot come ‘first’ as suggested in the multi-store model.
- LTM involves more than just maintenance rehearsal. For example, Craik and Lockhart suggested that enduring memories are created by the processing you do (levels of processing theory).
- The MSM is too simplistic, as it suggests that both STM and LTM are both ‘unitary’ stores. The working memory model shows this is not the case for STM, and research also shows that there are different types of LTM.

### The working memory model (pages 32–33)

1. C

2. • Central executive: monitors and coordinates all other mental functions in working memory. Sends information to the slave systems.
   • Episodic buffer: receives input from many sources.
   • Temporarily stores information, and integrates it from the central executive, phonological loop and visuo-spatial sketchpad.
   • It also sends information to LTM.

3. a. Directional: she predicted the direction the difference in performance would take (participants will perform worse, if using the same component).
   b. Cues that make participants aware of the aims of a study or helps them work out what the investigator expects to find.
   c. Systematic sampling
   d. Could produce a biased sample, which isn’t representative. This might not allow the findings from this study about working memory to be generalised.
   e. Ensures published research can be taken seriously because it has been independently scrutinised for its validity.
   f. The consistency of a measurement: any measurement should produce the same data if taken on successive occasions.
   g. Test–retest reliability
   h. Temporal validity: the ability to generalise a research effect beyond the particular time period of the study. Population validity. The ability to generalise outside the research setting to other people.

4. **Possible AO1 content:**

- The working memory model says STM has a number of different components.
- Central executive: delegates information to the slave systems. Has a very limited capacity.
- The phonological loop deals with auditory information, and preserves the order of information.
- The visuo-spatial sketchpad deals with the planning of spatial tasks, and the temporary storage of visual and/or spatial information.
• The episodic buffer integrates information from the central executive, phonological loop and visuo-spatial sketchpad. It also sends information to LTM.

Possible AO3 content:
• Research support or challenge from studies, e.g. Shallice and Warrington’s case study of KF and/or Hitch and Baddeley’s dual task methods.
• The phonological loop can explain why the word-length effect occurs.
• The ‘central executive’ is too vague, and there may be more than one central executive.
• Supporting evidence comes from brain damaged patients, which makes it difficult to replicate, and findings cannot be generalised.

Types of long-term memory (pages 34–35)

1. D

2. Procedural LTM is concerned with knowing how to do something, e.g. tying shoelaces, how to dive into a swimming pool. It’s concerned with skills.
   However, semantic LTM is concerned with knowing facts about the world that are shared by everyone. For example, knowing that the capital of England is London.

3. Any two of the following:
   • One type of long-term memory is episodic memory. This is shown when Sarah remembers happy days with her grandfather learning all kinds of card tricks.
   • Another type of LTM is semantic memory. For example, learning psychological terminology.
   • A third type of LTM is procedural memory. For example, Sarah is very good at shuffling cards.

4. Possible AO1 content:
   • Semantic memory is memories involving knowledge of the world, which is shared by everyone. For example, London is the capital of England.
   • Procedural memory involves knowing how to do something, and is concerned with skills. For example, tying shoelaces.

   Possible AO3 content:
   • There is research support for the different types of LTM. For example, the case study of HM, who could still form new procedural memories, but not episodic, or semantic, memories. This suggests they are separate components of LTM.
   • However, one criticism of research into types of LTM is the use of patients with brain damage, for example, making it difficult to replicate studies and creating issues with generalising findings.

Explanations for forgetting: Interference (pages 36–37)

1. A

2. (Specimen answer is supplied in exam workbook.)

3. Interference theory says that we forget because one memory disrupts the ability to recall another.
   • This is especially true when two pieces of information are similar.
   • So the reason the sign is helpful is because the information needed for driving in England and driving in France is very similar, but it’s possible that proactive interference may occur, and might lead to Simon crashing into an oncoming vehicle.
Possible AO1 content:

- Interference theory says we forget because one memory disrupts the ability to recall another.
- Proactive interference is when past learning interferes with more recent learning.
- Retroactive interference is when more recent learning interferes with past learning.

Possible AO3 content:

- One strength of interference theory is its application to advertising, e.g. Danaher et al. found that both recall and recognition of an advertiser’s message were impaired when participants were exposed to two adverts for competing brands within a week.
- One limitation of interference theory is that some of the research it is based on is artificial. For example, artificial lists of words and/or nonsense syllables, so findings may not relate to everyday situations.

Explanations for forgetting: Retrieval failure (pages 38–40)

1. D

2. Context-dependent forgetting: e.g. if you are tested on something in a different room to where you learned it.
   - State-dependent forgetting: e.g. learning words while drunk then trying to remember them when you are sober.

3. Unlike the independent groups design, the matched pairs design gives some degree of control over participant variables, which might influence the experiment’s outcome. However, it is not possible to control all participant variables because researchers can only match on known relevant variables, and other unknown variables could be important.
   - A variable that does not vary systematically with the independent variable, but may have an effect on the dependent variable that threatens a study’s internal validity.
   - The children’s prior knowledge about Scandinavian culture. Two children got 10/10 correct answers, which might be because of their cultural background rather than the context in which the questions were answered.
   - It shows that material is better recalled in the context in which it was encoded (average 6.2 correct) than in a context in which it was not encoded (average 3.8 correct).
   - Debriefing participants afterwards, and informing them of the need to keep them in ignorance as to the study’s real purpose.
   - The extent to which test items look like what the test claims to measure.
   - Sign test (or Wilcoxon, or related t-test). The researcher was looking for a difference between two conditions. A matched pairs design was used.
   - Because it is seen as being an acceptable balance between the risk of making a Type 1 error and a Type 2 error.

4. Possible AO1 content:

- Retrieval failure says we forget because of an absence of cues.
- Context-dependent forgetting occurs when, for example, you are tested on something in a different room to where you learned it.
- State-dependent forgetting occurs when, for example, you learn words while drunk then try to remember them when you are sober.

Possible AO3 content:

- Retrieval failure can be applied to improving everyday memory, e.g. when taking exams.
- Retrieval cues don’t always work, e.g. Smith and Vella claim context effects are largely eliminated when meaningful material is learned.
1. B

2. Gabbert *et al.* asked pairs of participants to watch a different video of the same event.
   - Participants in one condition were asked to discuss the event with a partner before each participant recalled what they had seen.
   - Participants in the other condition were asked to recall what they had seen without discussing the event.
   - The researchers measured the number of incorrect items recalled by the participants as a result of the discussion.

3. Research into eyewitness testimony has shown that the accuracy of recall can be affected by leading questions.
   - In this scenario, nearly a fifth of participants reported seeing a 'stop sign' that was not present in the original video.
   - This can be explained by the presence of misleading information in the question they had been asked about the speed of the vehicle, which affected the accuracy of their recall.

4. a. Independent groups design
   b. The effects of participant variables cannot be controlled. Participants in one condition may differ in an important way from those in the other condition. Researchers could try to minimise this limitation by randomly allocating participants to conditions.
   c. Opportunity sampling
   d. Inevitably biased, because the sample is drawn from a small part of the general population and will not be representative of it. This means that any results cannot be generalised.
   e. Nominal (or categorical). Participants' responses are counted as either 'yes' or 'no' to the questions.
   f. Chi-squared test
   g. 5 per cent (or 5 in 100, or 1 in 20)
   h. Findings obtained at one time might not hold true at another time with different researchers or different participants. Therefore, research must be replicated before a finding can be accepted as well established.

5. **Possible AO1 content:**
   - Loftus and Palmer asked participants how fast the cars were going when they ‘hit’ (or ‘smashed into’ or ‘contacted’) each other.
   - Participants in the ‘smashed’ condition estimated a faster speed than those in the ‘hit’ or ‘contacted’ condition.
   - Gabbert *et al.* asked participants to watch a different video of the same event. Participants in one condition were asked to discuss the event with a partner before each participant recalled what they had seen. Participants in the other condition were asked to recall what they had seen without discussing the event. The researchers found 71 per cent of witnesses who had discussed the events went on to mistakenly recall items acquired during the discussion.

**Possible AO3 content:**
- Research support from studies, e.g. Braun *et al.* describe how Loftus showed misleading information can lead to inaccurate memories about Bugs Bunny and Ariel at Disneyland.
- Loftus and Palmer’s research lacks ecological validity as it was done in laboratory conditions, telling us little about the effect of misleading information in the real world.
- There are individual differences in witnesses, e.g. age differences, which may affect the accuracy of recall (Schacter *et al.*).
- Real-life applications of the research, e.g. in the criminal justice system.
- Loftus and Palmer’s research may have a response bias, e.g. Bekerian and Bowers.
1. B

2. Johnson and Scott asked participants to sit in a waiting room. In one condition, the participants heard an argument then saw a man with greasy hands holding a pen.
   • In the other condition, the participants heard an argument then saw a man with bloody hands holding a knife.
   • Johnson and Scott found that participants in the ‘pen’ condition had a mean accuracy of 49 per cent when asked to identify the man, whereas those in the ‘knife’ condition had a mean accuracy of 33 per cent.

3. a. Primary data is information observed or collected directly from first-hand experience, whereas secondary data is information collected by someone else for a purpose other than that of the collector.
   b. The variables can be carefully controlled so that only the influence of the independent variable can be tested. Other methods do not have the same degree of control.
   c. The independent variable is manipulated by the researcher in a field experiment. In a natural experiment, the researcher takes advantage of a naturally occurring change in the independent variable.
   d. Ecological validity is a form of external validity concerning the ability to generalise a research effect beyond the particular setting in which it was obtained to other settings.
   e. The abstract contains concise information about the aim, method, results, and conclusion drawn from the study, and enables readers to decide if they are sufficiently interested to read the whole article. References enable readers to find research cited in the study, so they can read more about the original research if they want to.

4. Possible AO1 content:
   • Johnson and Scott: in one condition, participants heard an argument then saw a man with greasy hands holding a pen. In the other condition, the participants heard an argument then saw a man with bloody hands holding a knife.
   • Participants in the ‘pen’ condition had a mean accuracy of 49 per cent when asked to identify the man, whereas those in the ‘knife’ condition had a mean accuracy of 33 per cent.
   • Christianson and Hubinette asked participants to recall what happened in a bank robbery in Sweden. Witnesses were either victims or bystanders. They found that witnesses had generally good memories for the details of the robbery, and the victims, who were the most anxious, had the best recall.

Possible AO3 content:
   • There are real-life studies supporting or challenging the weapon focus effect, e.g. Deffenbacher et al.
   • The weapon focus effect may not be caused by anxiety, but surprise, e.g. Pickel.
   • Individual differences may play an important role in the accuracy of eyewitness testimony, e.g. emotional sensitivity as a key extraneous variable.
   • Alternative theories, e.g. Fazey and Hardy’s catastrophe theory.
   • Victims of real-life violent crimes may be more accurate in their recall than victims of non-violent crime, e.g. Halford and Milne.
1. C and E

2. Research support or challenge from studies, e.g. Köhnken et al.
   The usefulness of the cognitive interview when interviewing older witnesses, e.g. Mello and Fisher.
   Whether more accurate information is provided, or simply more information, e.g. Köhnken et al.
   Problems with how the cognitive interview is used in practice, e.g. Kebbell and Wagstaff found many police forces have not been able to provide enough time for training staff in the cognitive interview techniques.
   Problems evaluating the effectiveness of the cognitive interview due to it being a collection of techniques rather than just one ‘procedure’, e.g. Kebbell and Wagstaff found police forces only use some of the techniques.

3. The encoding specificity principle states that recall is best if the same cues are present at retrieval as were present at rehearsal.
   The context reinstatement technique is used to try to reinstate these cues.
   The question about the dog is included as a way to reinstate the context, and thus aid recall.

4. Possible AO1 content:
   Context reinstatement, e.g. ‘I would like you to try to think back to the day the event happened. What had you been doing? How did you feel at the time?’
   Report everything, e.g. ‘Please do not leave anything out. I am interested in absolutely everything you remember, even things you think may not be important.’
   Recall in a different order, e.g. ‘I would like you to tell me what happened backwards. Start with the very last thing you remember happening. What happened before that?’
   Recall from a changed perspective, e.g. ‘Try to recall the incident from the perspective of another person involved. Think about where s/he was and describe what s/he would have seen.’

Possible AO3 content:
   The usefulness of the cognitive interview when interviewing older witnesses, e.g. Mello and Fisher.
   Whether more accurate information is provided, or simply more information, e.g. Köhnken et al.
   Problems with how the cognitive interview is used in practice, e.g. Kebbell and Wagstaff found many police forces have not been able to provide enough time for training staff in the cognitive interview techniques.
   Problems evaluating the effectiveness of the cognitive interview due to it being a collection of techniques, rather than just one ‘procedure’, e.g. Kebbell and Wagstaff found police forces only use some of the techniques.
Chapter 3: Attachment

Caregiver–infant interactions (pages 48–49)

1. B

2. (Specimen answer is supplied in the exam workbook.)

3. 
   a. Controlled observation is a method in which behaviour is observed, but under conditions where certain variables have been organised by the researcher. This allows researchers to investigate the effects of particular objects or situations on behaviour.
   b. One strength is that behavioural categories allow the observer to record observations into prearranged groups. This will increase the reliability of the observations.
   c. The researchers used observers who did not know which facial expression the infant had seen, and so their observations would not be biased by their expectations.
   d. Quantitative data involves numbers, such as scores on a memory test, whereas qualitative data is non-numerical, such as the transcript of an interview.
   e. Inter-observer reliability is the extent to which there is agreement between two or more observers involved in the observations of a behaviour.
   f. The observer's observations of the number of times the infants opened their mouths and stuck out their tongues could be correlated using an appropriate statistical test. If the observations are reliable, there should be a significant correlation.
   g. Chi-squared test

4. Possible AO1 content:
   • Caregiver-infant interactions are characterised by non-verbal communication between infant and caregiver. Interactional synchrony is when two people mirror what the other person is doing in their facial expressions and body movements, which includes imitating emotions; for example, if a mother smiles, and the infant smiles too. However, reciprocity is when someone responds to the action of another person with a similar action; for example, if the mother tickles her infant, and the infant giggles in response.

Possible AO3 content:
   • One strength of this research comes from research investigating intentional behaviour, which has shown that infants do not respond to inanimate objects. Abravanel and DeYong observed infants interacting with two objects, one simulating tongue movements, and the other simulating a mouth opening and closing. They found that infants between 5 and 12 weeks old made little response to the objects, suggesting infants only imitate specific social responses to other humans.
   • Research also suggests that research into interactional synchrony can be applied to later adult relationships. Meltzoff proposed the ‘like me’ hypothesis, which explains how infants acquire an understanding of what other people are thinking and feeling. This means that they have the skills to develop a theory of mind. This shows how interactional synchrony might help children to develop this ability, which is so important for social relationships.
   • However, one limitation of this research is that it is difficult to test infant behaviour reliably. Infants’ mouths are nearly always moving and the expressions that are tested, such as tongue out or smiling, occur frequently. This means that it is difficult to distinguish between general activity and specific imitated behaviours.
   • Another limitation of this research is that it is hard to replicate. Research by Koepeke et al. failed to replicate the findings of Meltzoff and Moore. However, Meltzoff and Moore argued that Koepeke et al.’s research was less controlled. This shows that the findings from interactional synchrony research may lack reliability.
A final limitation of this research is that there are individual differences. Isabella et al. found that the more strongly attached caregiver-infant pairs showed greater interactional synchrony. This shows that children will respond to adults differently based on the nature of their attachment. However, it is not clear whether the imitation is a cause or an effect of this early synchrony.

The development of attachment (pages 50–51)

1. D

2. 
   - Fathers may act as primary attachment figures in that they do form secure attachments with their children. Alternatively, fathers are far less likely to be primary attachment figures than mothers.
   - Research by Heermann et al. found that men are less sensitive to infant cues than the mothers.
   - Fathers may also act as secondary attachment figures in that they are more playful, physically active and better at providing challenging situations for their children.
   - Research by Geiger et al. found that a father is a more exciting playmate than a mother.

3. 
   - The stage of attachment Steve is in is Stage 2, the beginnings of attachment. This is because he doesn’t show stranger anxiety, and can be comforted by others.
   - The stage of attachment Anna is in is Stage 3, the discriminate attachment stage. This is because she shows anxiety in the presence of strangers, and cannot be comforted by just anyone.

4. Possible AO1 content:
   - Stage 1: indiscriminate attachment infants will produce similar responses to all objects, but towards the end of the stage will begin to show a preference for smiling faces and people.
   - Stage 2: the beginnings of attachment. Infants will prefer human company and can distinguish between people. They are relatively easily comforted by anyone and don’t show stranger anxiety.
   - Stage 3: discriminate attachment. Infants will show stranger anxiety and separation anxiety.
   - Stage 4: multiple attachments. Infants will develop a wider circle of multiple attachments.

Possible AO3 content:
   - Stage theories suggest development is rather inflexible, as they suggest development occurs in a specific sequence.
   - Cross-cultural research suggests Schaffer and Emerson’s stages of attachment may only apply to individualistic cultures, not collectivistic cultures.
   - Schaffer’s research uses a biased sample of working-class infants from Glasgow, so the supporting research may lack population validity and cultural validity.
   - Schaffer and Emerson may have placed too much importance on the primary attachment figure and they may have undervalued the importance of secondary attachments.
   - Schaffer’s stages may be based on potentially unreliable data and so may not represent caregiver-infant relationships.

Animal studies of attachment (pages 52–53)

1. C

2. 
   - One strength of Lorenz’s research is later research support. For example, Guiton found leghorn chicks exposed to yellow rubber gloves imprinted onto them.
   - However, one criticism is imprinting may be more flexible than Lorenz claimed. For example, Hoffman says imprinting is a more ‘plastic and forgiving mechanism’.
3. EITHER wire versus cloth-covered surrogate OR baby bottle versus non-baby bottle.

b. The time the infants spent clinging to each surrogate mother
c. Directional. This is because the researcher specified that the infants would spend longer clinging to the cloth mother.
d. Unlike other forms of experiment, there is a high degree of control over possible extraneous and confounding variables in a laboratory experiment. However, laboratory experiments tend to have low ecological validity because the findings from laboratory studies do not always generalise to other settings.
e. Findings obtained at one time might not hold true at another time with different researchers or different participants. Therefore, research must be replicated before a finding can be accepted as well established.
f. Interval
g. There is a less than 5 per cent likelihood that the difference (or correlation) would occur if there is no real difference between the conditions (or relationship between the variables).

4. Possible AO1 content:
   • Lorenz investigated imprinting in goslings.
   • One group of eggs hatched under their mother and imprinted onto her. The other group hatched in an incubator and imprinted onto Lorenz.
   • Lorenz found goslings would follow whomever they had imprinted on, but there was a critical period for imprinting.
   • Harlow used rhesus monkeys to investigate whether attachment was the result of the feeding bond between mother and child. A wire mother provided food but no comfort. A cloth mother provided comfort but no food.
   • Harlow found the baby monkeys spent more time on the cloth mother than the wire mother, suggesting infants form attachments to the person offering contact comfort, not whoever feeds them.

Possible AO3 content:
   • Later research support for Lorenz’s research, e.g. Guiton found leghorn chicks exposed to yellow rubber gloves imprinted onto them.
   • Imprinting may be more flexible than Lorenz claimed, e.g. Guiton found he could reverse the imprinting in chickens.
   • There was a lack of control over the two ‘mothers’ in Harlow’s research, as the two heads were different, acting as a confounding variable.
   • Issues include generalisation and treating the conclusions of animal research with caution, unless the findings have been replicated in humans.
   • There are ethical issues raised by using non-human animals in research, especially with the harm caused to the infant monkeys in Harlow’s research.

Explanations of attachment: Learning theory (pages 54–55)

1. B

2. Classical conditioning (learning by association): an unconditioned stimulus of food leads to an unconditioned response of contentment. The mother is the one who feeds the infant, and so she becomes the conditioned stimulus leading to a conditioned response of contentment and attachment.
   • Operant conditioning (learning by reinforcement/consequences): a hungry infant has a drive to reduce the accompanying discomfort. When the infant is fed, the drive is reduced, producing a feeling of pleasure, which acts as positive reinforcement. The behaviour that led to being fed is therefore more likely to be repeated.
3. a. The researcher wanted to investigate whether people believed the learning theory of attachment was ‘probable’ or ‘improbable’.
b. Directional. This is because the researcher predicted that even if people had not heard of learning theory, they would be more likely to decide it was ‘improbable’ rather than ‘probable’.
c. Volunteer (self-selecting) sampling
d. The sample might be biased and not representative, so it may produce results that lack validity and which can’t be generalised.
e. It is quantitative because the researcher has counted the number of people expressing a particular belief about learning theory.
f. Chi-squared test. Nominal (or categorical) level of measurement. The researcher is looking for a difference between observed frequencies.
g. People could have voted more than once, so a method of ensuring this didn’t happen (e.g. listing telephone numbers) would improve validity.
h. It refers to the capacity for something to be proved wrong. The statement ‘all swans are white’ is falsifiable because it can be disproved by the observation of a swan that is not white.

4. Possible AO1 content:
• Classical conditioning (learning by association): an unconditioned stimulus of food leads to an unconditioned response of contentment. The mother is the one who feeds the infant, and so she becomes the conditioned stimulus leading to a conditioned response of contentment and attachment.
• Operant conditioning (learning by reinforcement/consequences): a hungry infant has a drive to reduce the accompanying discomfort. When the infant is fed, the drive is reduced, producing a feeling of pleasure, which acts as positive reinforcement. The behaviour that led to being fed is therefore more likely to be repeated.

Possible AO3 content:
• Learning theory has some explanatory power, even if food isn’t the most important reinforcer.
• A lot of the supporting research is based on non-human animals, so behaviourist explanations for attachment may present an oversimplified version of human behaviour.
• Learning theory places a lot of emphasis on food, but research by Harlow showed that food is not the most important factor and that other important factors, such as contact comfort, have been ignored.
• Drive reduction theory is outdated and doesn’t adequately explain how secondary reinforcers work.
• Bowlby’s theory may provide a better explanation of attachment, as it can explain why attachments form rather than just how they form.

Explanations of attachment: Bowlby’s theory (pages 56–57)

1. D

2. • A critical period is a biologically determined period of time, during which certain characteristics can develop.
• Bowlby thought that, in infants, this critical period was 3–6 months.
• One criticism of the idea of the critical period is it is possible to form an attachment outside of the critical period, and the term ‘sensitive period’ is now used.
• This is a criticism because it means that Bowlby’s original idea of a critical period isn’t completely accurate.
3.  
- The internal working model is a mental model of the world, which enables individuals to predict and control their environment.
- So the research John is reading about is based on relationship research, which says that early attachment affects a person’s expectations about relationships.
- This means that whatever attachment forms in the critical period becomes an internal working model for relationships in childhood and adulthood.

4.  
**Possible AO1 content:**
- Infants have an innate drive to become attached.
- This should happen in a critical period, and those who do not have the opportunity to form an attachment during this time seem to have difficulty forming attachments later on.
- The role of social releasers
- One main attachment forms in the critical period (monotropy).
- The internal working model

**Possible AO3 content:**
- Research support for the idea of monotropy, e.g. Prior and Glaser concluded that a hierarchical model of attachment, which places emphasis on one person ‘higher’ than others, is more likely than multiple attachments.
- Early infant behaviour, e.g. crawling, which occurs around the same age as attachments form, provides support for the claim that attachments are adaptive.
- Research support for the idea of an internal working model, e.g. the Minnesota parent–child study found individuals who were classified as securely attached in infancy were rated highly for social competence later in childhood.
- It is possible to form an attachment outside of the critical period, e.g. Rutter *et al.* found that infants are still able to form an attachment outside of the critical period.
- An infant’s temperament may affect the strength of attachment, e.g. Belsky and Rovine found that infants between one and three days old who had signs of behavioural instability were later judged to be insecurely attached.

**Ainsworth’s Strange Situation: Types of attachment (pages 58–59)**

1.  
- D

2.  
- In the ‘Strange Situation’, when the mother leaves her child, a child who has an insecure-avoidant attachment would show little distress when the mother left.
- However, a child who has an insecure-resistant attachment would be intensely distressed when the mother left.
- When the mother returns, the child who has an insecure-avoidant attachment would show little interest in the mother on reunion.
- However, the child who has an insecure-resistant attachment would both want, and resist, the mother on reunion.

3.  
- a. Because the researcher controls what happens in each of eight episodes and how long each episode lasts for.
- b. Controlled observation tends to have lower ecological validity than natural observation. For example, in the Strange Situation, the mother and stranger are ‘scripted’ to act in certain ways rather than act naturally.
- c. Covert observation is observing people without their knowledge that they are being observed. This is different from overt observation, during which people are aware that their behaviour is being observed.
d. Willingness to explore and how anxious the infant is in the presence of a stranger.

e. Event sampling involves keeping a count of the number of times a behaviour (event) occurs. By contrast, time sampling involves recording behaviours (events) that occur in a given timeframe.

f. By correlating the observations made by the observers for each behavioural category. If the observations are reliable, there will be a high degree of agreement between the observers.

g. Ecological validity is the ability to generalise a research effect beyond the particular setting in which it is demonstrated to other settings. This is different from face validity, which is concerned with the extent to which a test, for example, looks like it is going to measure what it says it measures.

4. Possible AO1 content:
   • Ainsworth created the Strange Situation to measure the nature of attachment.
   • Procedure consists of eight episodes, including the mother and infant together, the presence of a stranger, the absence of the mother and her return.
   • It looks at: use of parent as a secure base, stranger anxiety, separation anxiety and reunion behaviour.
   • Findings: three main patterns of behaviour: secure attachment, insecure-avoidant attachment, and insecure-resistant attachment.

Possible AO3 content:
   • Real-world applications of research, e.g. intervention strategies that teach caregivers to understand their infants’ signals of distress.
   • The Strange Situation is highly reliable, e.g. Ainsworth found almost perfect inter-observer reliability (94) suggesting high agreement among the different observers in terms of exploratory behaviour.
   • The Strange Situation is low in internal validity, as it may be measuring an infant’s relationship with a particular parent, not the child’s attachment type.
   • Later research into attachment, e.g. Main and Solomon put forward a fourth attachment type: Insecure-disorganised (Type D) attachment.
   • Research on maternal sensitivity has found low correlations between maternal sensitivity and the strength of attachment.

Cultural variations in attachment (pages 60–61)

1. A

2. • Van IJzendoorn carried out meta-analysis of the findings of 32 studies of attachment behaviour from eight countries.
   • Van IJzendoorn found secure attachment was the most common across all cultures. Insecure-avoidant was the next most common in all countries, except Israel and Japan. Variation within cultures was 1.5 times higher than the variation between cultures.

3. • Van IJzendoorn found that German children are more likely to be classified as having insecure-avoidant attachment, possibly due to childrearing practices.
   • So when Sandra notices that German children ‘appeared to be kept at some interpersonal distance’ from their parents, this may be due to the way they are raised more than their attachment.
   • However, Van IJzendoorn and Sagi found that dependence, rather than independence, would be a sign of secure attachment in Japan.
   • So when Sandra notices that Japanese children were rarely separated from their mothers, it may be they are showing signs of secure attachment.
4. **Possible AO1 content:**
   - Van IJzendoorn’s meta-analysis of the findings of 32 studies of attachment behaviour from eight countries.
   - Van IJzendoorn found secure attachment was the most common across all cultures. Insecure-avoidant was the next most common in all countries, except Israel and Japan. Variation within cultures was 1.5 times higher than the variation between cultures.
   - Grossmann and Grossmann found German children are more likely to be classified as insecurely attached, possibly due to childrearing practices.
   - Takahashi found that Japanese children are more likely to show insecure-resistant attachment than insecure-avoidant attachment, possibly due to childrearing practices.

**Possible AO3 content:**
- Cross-cultural research has led to developments of universal principles of attachments, as even though the expression of maternal sensitivity and behaviours found in securely attached children may vary across cultures, the core concepts are the same.
- Similarities in attachment across cultures may not be innately determined and may be the result of global media culture rather than innate biological influences.
- The findings are based on countries, not cultures, so the research may not be comparing cultures after all, so the term ‘cultural variations’ should be used with caution.
- There is a cultural bias in attachment theory, e.g. Rothbaum et al. claim that attachment theory is rooted in American culture, suggesting that the high levels of insecure-resistant attachment found in Japanese children may be due to this cultural bias. The research tools that are used in cross-cultural research lack validity, e.g. the Strange Situation assumes that ‘willingness to explore’ is a sign of secure attachment, but this may not be true in all cultures, leading to the misclassification of attachment types.

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**Bowlby’s theory of maternal deprivation (pages 62–63)**

1. **B**

2. (Specimen answer is supplied in exam workbook.)

3. 
   a. 32 per cent (14/44 x 100)
   b. \( \frac{3}{22} = \frac{12}{88} = \frac{12}{4} = 3 \) and \( \frac{88}{4} = 22 \)
   c. Bowlby conducted the interviews with the children himself. His diagnoses of affectionless psychopathy might have been biased by his own ideas about the effects of separation.
   d. Bowlby could have used interviewers who were blind to his hypothesis (and/or whether the children had experienced separation).
   e. The research might lead to better understanding of the negative effects of children being separated from their mothers. If separation could be prevented, then the economy would benefit because fewer children would go through the judicial system, so saving money for taxpayers.
   f. Case studies offer rich, in-depth information. Data can provide insights into the complex interactions of many factors, in contrast to experiments in which variables are held constant. However, it is difficult to generalise from individual cases, as each one has its own unique characteristics.
   g. Findings obtained at one time might not hold true at another time with different researchers or different participants. Therefore, research must be replicated before a finding can be accepted as well established.
4. **Possible AO1 content:**
   - Prolonged emotional deprivation has long-term consequences in terms of emotional development.
   - The value of maternal care, both in, and after, the critical period.
   - Deprivation of emotional care can lead to emotional maladjustment or mental health problems, e.g. depression.

**Possible AO3 content:**
- Research support for the long-term effects of maternal deprivation, e.g. Bifulco et al. found that women who had experienced separation from their mothers were more likely to experience depression or an anxiety disorder, compared with those who had no experience of separation.
- Real-world applications of Bowlby’s research, e.g. caring for children in hospital.
- Bowlby doesn’t distinguish between privation and deprivation and, according to Rutter, there is a key distinction between the two, and a lack of clarity may affect the validity of research findings.
- Psychological separation can also lead to deprivation, e.g. even though depressed mothers may be physically present, they may be unable to provide suitable emotional care to their children.
- Not all children are affected by emotional disruption in the same way, e.g. Bowlby’s suggestion that children who cope better during prolonged deprivation may have been more securely attached and therefore more resilient.

### Romanian orphan studies: Effects of institutionalisation (pages 64–65)

1. C

2. Rutter and Sonuga-Barke examined Romanian orphans, who had been adopted, at regular intervals to assess their physical, cognitive and emotional development. They also interviewed their parents and teachers, and compared them to British children who were also adopted.
   - They found that, by age four, some of the orphans had caught up with the British children. Those adopted after six months showed significant deficits and signs of disinhibited attachment.

3. a. It involves identifying subgroups according to their frequency in the population. Participants are then randomly selected from these subgroups.
   b. It is the sampling technique that is most likely to produce a sample that is representative of the population from which it was drawn. This is because there is a proportional and randomly selected representation of subgroups.
   c. Structured interviews can be easily repeated because the questions are standardised. This means answers from different people can be compared. This also means that they are easier to analyse than an unstructured interview because answers are more predictable. One limitation of both structured and unstructured interviews is that the interviewer’s expectations may influence the answers the interviewee gives (a form of investigator effect called interviewer bias).
   d. 81 (117-36 or 117-18-18)
   e. The questionnaire could be compared with an existing questionnaire on autistic features in children, that is known to be valid. If the two questionnaires are measuring the same thing, there will be a high correlation between people’s scores on them.
   f. Pearson’s and Spearman’s tests
   g. An abstract enables readers to decide if they are sufficiently interested to read all of the article.

4. **Possible AO1 content:**
   - Physical underdevelopment
   - Intellectual underfunctioning
   - Disinhibited attachment
   - Poor parenting
Possible AO3 content:
- Real-life applications of research, e.g. looking after children.
- The value of longitudinal studies that allow researchers to assess the long-term effects of institutionalisation and whether the effect may disappear after sufficient time with suitable high-quality care.
- The Romanian orphans were faced with much more than emotional deprivation, e.g. the physical conditions of the institutions, or lack of cognitive stimulation, so it may not have only been the emotional deprivation alone that affected the orphans’ development.
- The effects of institutionalisation may disappear over time, suggesting that the effects of institutionalisation may be reversible, but it may take a long time to recover.
- The individual differences of children may play an important role, suggesting that the findings of institutionalisation research are not universal.

The influence of early attachment (pages 66–67)

1. B

2. • An internal working model is a mental model of the world.
   • An infant learns from experience what relationships are and how partners in a relationship behave towards each other.
   • Its role is to enable us to predict and control our environment. In the case of attachment, the model relates to a person’s expectations about relationships.

3. • Correlational research is research that looks at the extent to which two variables are related; in this case, attachment type in infancy and the length of a romantic relationship in adulthood.
   • One limitation of correlational research is that it cannot say that one variable is causing the other.
   • However, the author claims that attachment type in infancy is the reason for relationship breakdown in adulthood.
   • This may be incorrect because the research doesn’t say that the two variables are linked in a causal way.

4. Possible AO1 content:
   • Bowlby’s theory of an internal working model
   • Hazan and Shaver’s ‘Love Quiz’ asked participants about their current attachment experiences and their attachment history.
   • Hazan and Shaver found a positive correlation between attachment type and love experiences.

Possible AO3 content:
- Research is correlational, so researchers are unable to conclude that the internal working model determines later relationships.
- The low correlations that have been found, e.g. Fraley reviewed 27 samples where infants were assessed in infancy and later reassessed (up to 20 years later) and found correlations ranging from .50 to .10.
- Attachment research relies on retrospective classification and people’s memories may not be accurate, meaning the findings may not be valid.
- The theories, and findings, are deterministic as they suggest that very early experiences have a fixed effect on later adult relationships, so our relationships are determined by early experiences.
- Adult attachment patterns may be properties of the relationship, rather than the individual, so it is possible that the adult relationships are guided by a self-verification process, i.e. the tendency to seek others who confirm your expectations of relationships.
Chapter 4: Psychopathology

Definitions of abnormality (pages 68–69)

1. C

2. (Specimen answer is supplied in the exam workbook.)

3. The ‘statistical infrequency’ definition of abnormality says that behaviour is abnormal when it is extremely rare. So the reason Karim and Taliah thought the guest’s behaviour was abnormal is because the majority of people were dressed smartly, but the guest was the only one wearing jeans and trainers.

The ‘deviation from social norms’ definition of abnormality says that behaviour is abnormal when someone behaves differently from the standards of acceptable behaviour that are set by a particular social group. So the reason Karim and Taliah thought the guest’s behaviour was abnormal is because dressing smartly is considered acceptable behaviour for a wedding, and dressing in a t-shirt and jeans is a deviation from this social norm.

4. Possible AO1 content:
   • The statistical infrequency definition of abnormality says that abnormal behaviour is behaviour that is extremely rare. If behaviour is done by most people, then it’s considered normal behaviour, but if it is done by very few people, then it is considered abnormal behaviour. For example, if someone has their first baby after the age of 40, this would be defined as abnormal because most people have their first baby before then.

Possible AO3 content:
   • One limitation of this definition of abnormality is that it does not take into account the desirability of a statistically infrequent behaviour. For example, very few people have an IQ over 150. The statistical infrequency definition does not distinguish between desirable and undesirable behaviour. This means that for an effective definition of abnormality, we need a way that also identifies whether or not abnormal behaviour is desirable.
   • Another limitation of the statistical infrequency definition of abnormality is that the cut-off point for where normal behaviour becomes abnormal behaviour is subjectively determined. Not all people agree on what an abnormal amount of sleep is, for example. However, since it is a symptom of depression, it is important to know when a normal amount of sleep becomes an abnormal amount of sleep, if we are to make a diagnosis. This means that disagreements about cut-off points make it difficult to define abnormality in this way.

Definitions of abnormality (continued) (pages 70–72)

1. C

2. • One strength of the ‘failure to function adequately’ definition of abnormality is that it recognises the subjective experience of the patient, which allows us to view a mental disorder from the point of view of the person experiencing it.
   • One limitation of this definition of abnormality is that some apparently dysfunctional behaviour can actually be adaptive and functional to the individual. For example, some individuals who cross-dress make a living out of it, yet transvestitism is classified as a mental disorder and is generally regarded as abnormal.
3.  
   a. By giving participants limited options for their responses, researchers can easily collate and display information clearly. However, respondents cannot develop their responses with detail or depth, so only a limited amount of information is collected.
   b. ‘Mentally healthy people are independent and self-regulating.’ Suitable because it is another of Jahoda’s criteria for ideal mental health.
   c. 60 per cent (42/70 \times 100)
   d. 2/5 (28/70 = 28/14 = 2, and 70/14 = 5)
   e. Compared with structured interviews, unstructured interviews are more difficult to analyse because of the freedom of response they give to interviewees.
   f. Nominal (or categorical). The researcher established categories and counted the number of observations in each category.
   g. Chi-squared test. The observations are independent. The researcher is looking for a difference in observed frequencies.

4. **Possible AO1 content:**
   - The ‘deviation from ideal mental health’ definition of abnormality: behaviour is abnormal if someone is deviating from an ideal of positive mental health (e.g. not being able to cope with stress).
   - Jahoda’s six characteristics of ideal mental health (e.g. personal growth and self-actualisation).

**Possible AO3 content:**
   - The ‘deviation from ideal mental health’ definition focuses on the positives rather than the negatives, the ideas have had some influence and are in accord with the ‘positive psychology’ movement.
   - This definition of abnormality is unrealistic, as most of us are abnormal according to Jahoda’s criteria, and it is unclear how many would have to be lacking before a person would be judged as abnormal.

**Possible AO1 content:**
   - The ‘failure to function adequately’ definition of abnormality: behaviour is abnormal if a person cannot cope with everyday life. Not functioning adequately causes distress for the person, or to others.
   - For example, schizophrenia’s symptoms, such as hallucinations, are distressing, both for the person and to others.

**Possible AO3 content:**
   - The ‘failure to function adequately’ definition recognises the subjective experience of the patient, which allows us to view a mental disorder from the point of view of the person experiencing it.
   - Some apparently dysfunctional behaviour can actually be adaptive and functional to the individual. For example, some individuals who cross-dress make a living out of it, yet transvestitism is classified as a mental disorder and is generally regarded as abnormal.

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### Mental disorders (page 73)

1. B and D

2.  
   - An obsession is recurrent, persistent and intrusive thoughts or impulses.
   - For example, someone with OCD might have an obsession with germs being everywhere.
   - However, a compulsion is repetitive behaviours that are performed to reduce the anxiety created by obsessions.
   - For example, someone with OCD might undertake repeated hand washing.
3. • One behavioural characteristic of phobias is avoiding the phobic stimulus.  
   • For example, Brian feels that ‘all he wants to do is get off the plane as quickly as possible’.  
   • One cognitive characteristic of phobias is irrational thinking about the phobic stimulus.  
   • For example, Brian describes how, during the safety instructions, ‘his mind is elsewhere’.  
   • One emotional characteristic of phobias is panic.  
   • For example: Brian panics ‘when the engines roar’.

The behavioural approach to explaining phobias (pages 74–75)

1. B

2. • One limitation of the behavioural approach to explaining phobias is that a phobia does not always develop after a traumatic incident.  
   • For example, DiNardo et al. found that not everyone who is bitten by a dog develops a phobia of dogs.  
   • The diathesis-stress model says that we inherit a genetic vulnerability for developing mental disorders, but a disorder will only manifest itself if triggered by a life event.  
   • This suggests that a dog bite will only develop in people with such a vulnerability.

3. • Classical conditioning occurred here, as the unconditioned stimulus was the nerve being hit, leading to the unconditioned response of pain/fear. A visit to the dentist becomes the conditioned stimulus leading to a conditioned response of fear.  
   • Operant conditioning says that we learn by consequence/reinforcement.  
   • Every time Sally walks away from the dentist’s door, she feels relief. This would maintain Sally’s phobia because, it acts as negative reinforcement.

4. **Possible AO1 content:**  
   • We acquire phobias due to classical conditioning; that is, learning by association.  
   • An unconditioned stimulus leads to an unconditioned response of fear. If a neutral stimulus is paired with the unconditioned stimulus, it will become the conditioned stimulus, leading to the conditioned response of fear.  
   • Phobias are maintained due to operant conditioning.  
   • If a behaviour is negatively reinforced, then it is more likely to be repeated. So if someone avoids the phobic stimulus, it reduces fear and the phobia is maintained.

**Possible AO3 content:**  
• Research support from studies e.g. Sue et al. found some people can recall a specific event that led to their phobia developing.  
• A phobia does not always develop after a traumatic incident, e.g. DiNardo et al. found that not everyone who is bitten by a dog develops a phobia of dogs.  
• The two-process model cannot explain the development of all phobias, e.g. some people cannot remember an incident occurring that led to their phobia developing.  
• The behavioural approach ignores the cognitive aspects of the phobia’s development, e.g. a person who thinks they might die if they are trapped in a lift might become extremely anxious, and this may trigger a phobia of lifts.  
• Biological preparedness may be a better explanation than the two-process model, e.g. we may be genetically prepared to learn associations between fear and stimuli that were life-threatening in our evolutionary past.
The behavioural approach to treating phobias (pages 76–77)

1. D

2. Systematic desensitisation is when a client is gradually exposed to (or imagines) the phobic stimulus under relaxed conditions. However, in flooding a client is exposed to (or imagines) an extreme form of the phobic stimulus under relaxed conditions.

3. Flooding involves a single exposure to the most feared situation. First, Gordon would learn relaxation techniques. Then he would be put in the most feared situation. For example, lying in a snowy field. As adrenaline levels naturally decrease, Gordon will learn a new stimulus-response link between snow and calm.

4. Possible AO1 content:
   - Systematic desensitisation treats phobias by using counter-conditioning.
   - The phobic learns a relaxation technique and creates an anxiety hierarchy.
   - They imagine the least feared scene while simultaneously relaxing. When no anxiety is experienced, they can move up the hierarchy.
   - Flooding treats phobias by exposing the phobic to the most feared situation.
   - The phobic learns relaxation techniques, then is exposed to the phobic stimulus and eventually the fear response is extinguished.

Possible AO3 content:
   - Systematic desensitisation has been found to be successful, e.g. McGrath et al. reported that about 75 per cent of phobics respond to systematic desensitisation.
   - Systematic desensitisation is not appropriate for all phobias, e.g. Ohman et al. suggest systematic desensitisation may be less effective in treating phobias that have an underlying evolutionary survival component, such as a fear of the dark.
   - Flooding is effective as long as the patient sticks to it, e.g. Choy et al. reported flooding was more effective than systematic desensitisation.
   - Flooding can be an unethical way to treat someone with a phobia as it is a highly traumatic procedure.
   - Both therapies only remove the symptoms of a phobia, not the causes of it, e.g. the symptoms may resurface in another form if the underlying cause remains.

The cognitive approach to explaining depression (pages 78–79)

1. D

2. Beck says depression occurs because of traumatic childhood experiences, which lead to negative self-schemas. He talks about a negative triad, which is a triad concerning the self, the world, and the future. Ellis says depression occurs because of irrational beliefs, which develop from mustabatory thinking. His ABC model says: Activating event (irrational, negative). Belief. Consequences.
3.  
   a. Open questions allow respondents to develop their interpretations of the events depicted in the stories with depth or detail, rather than be constrained by pre-determined options.
   b. Directional. This is because the researcher predicted the direction (positive) that the correlation would take.
   c. The sample might be biased and produce results that lack validity.
   d. Because the psychologist knew what the hypothesis was, she might have biased the way she scored the participant’s responses on the questionnaire in order to support her hypothesis.
   e. The psychologist could have asked someone who did not know the study’s hypothesis to score the participant’s responses on the questionnaire. This would reduce the possibility of scoring being biased by the psychologist’s expectations.
   f. Pearson’s or Spearman’s test
   g. Temporal validity refers to the ability to generalise a research effect beyond the particular time period of the study. Concurrent validity is a means of establishing validity by comparing an existing test, or questionnaire, with the one you are interested in.

4.  
   Possible AO1 content:
   • Depression as a result of irrational, negative thinking
   • Beck: depression occurs due to traumatic childhood experiences, which lead to negative self-schemas.
   • The negative triad, concerning the self, the world, and the future
   • Ellis: depression occurs due to irrational beliefs, which come from mustabatory thinking.
   • ABC model: Activating event (irrational, negative). Belief. Consequences.

   Possible AO3 content:
   • Research support from studies, e.g. Hammen and Krantz found that depressed participants made more logical errors than non-depressed participants when interpreting written material.
   • The cognitive approach focuses on the person, giving them responsibility for their disorder so the client can change their situation to reduce those aspects of their life that might be contributing to their depression.
   • The cognitive approach to explaining depression has useful real-life applications, e.g. both Ellis’ and Beck’s explanations have been applied to therapy (CBT).
   • Not all irrational beliefs are in fact irrational, but may only seem that way, e.g. Alloy and Abraham found that depressed people gave more accurate estimates of the likelihood of disaster than non-depressed people.
   • It is very likely that genetic factors and neurotransmitters are involved in depression, e.g. studies have found low levels of serotonin in depressed people, and a gene related to this is ten times more common in depressed people.

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The cognitive approach to treating depression (pages 80–81)

1.  C

2.  (Specimen answer is supplied in the exam workbook.)

3.  
   a. Self-rated depression scores
   b. Independent groups design
   c. In the repeated measures design, each participant appears in every condition of the experiment (i.e. every level of the independent variable).
   d. Each participant could have been given a number. The numbers could have been written on pieces of paper and placed in a hat. The first number drawn would have been assigned to the treatment condition, the second to the control condition, and so on.
The researcher cannot control for participant variables. Random allocation reduces the possibility of participant variables biasing the investigation.

There is a less than 1 per cent chance that a difference (or correlation) would occur if there was no real difference between the conditions (or relationship between the variables).

A Type 1 error occurs when the experimental hypothesis is accepted when it should have been rejected. The 0.05 level is seen as being an acceptable balance between the risk of making a Type 1 error and a Type 2 error.

**Possible AO1 content:**
- Ellis’ rational emotive behaviour therapy focuses on challenging irrational, negative thoughts.
- Disputing irrational thoughts and beliefs, e.g. by asking clients ‘where is the proof that this belief is accurate?’ (empirical disputing)
- Clients might be asked to complete homework tasks or engage in pleasurable activities such as exercise.

**Possible AO3 content:**
- Research support showing Ellis’ rational emotive behaviour therapy is effective, e.g. Ellis claimed a 90 per cent success rate with treatment completed in an average of 27 sessions.
- Research shows that exercise can be beneficial, e.g. Babyak et al. found that aerobic exercise, antidepressant drugs or both together treat depression effectively.
- Cognitive behavioural therapy may not be suitable for some people, e.g. Elkin et al. found CBT is less suitable where people’s irrational beliefs are rigid and resistant to change.
- Research suggests there isn’t much evidence between psychotherapies’ effectiveness, e.g. Luborsky et al. reviewed over 100 studies, comparing different therapies, and found only small differences between them in terms of their effectiveness.
- Drug therapy may be a more appropriate therapy for some people, as it requires less effort on the part of the client, and some people may be unable to focus on the demands of CBT.

**The biological approach to explaining OCD (pages 82–83)**

1. C

2. The genetic approach to explaining OCD says that individuals inherit specific genes that are related to the onset of OCD.
   - The COMT gene regulates dopamine production, and one form of the COMT gene is more common in OCD patients.
   - The SERT gene regulates the transport of serotonin, and Ozaki et al. found a mutation of this gene in two unrelated families who had six out of seven family members with OCD.
   - In patients with OCD, serotonin levels are thought to be lower than in those without OCD.
   - In patients with OCD, dopamine is thought to be higher than in those without OCD.

3. A concordance rate is the probability that a second twin will develop a disorder, given that the first twin already has the disorder.
   - Here, the concordance rate is 65 per cent, so it suggests that there is a 65 per cent chance that the second twin will develop OCD, if the first twin has already developed it.
   - This means that biological factors at least play a role in the cause of OCD.

4. **Possible AO1 content:**
   - The biological approach: OCD is a result of our nature, including genes, brain biochemistry and brain structure.
• Genetics: one form of the COMT gene is more common in OCD patients. The SERT gene regulates the transport of serotonin, and Ozaki et al. found a mutation of this gene in two unrelated families who had six out of seven family members with OCD.
• Serotonin levels are thought to be lower, and dopamine levels are thought to be higher, in OCD patients.
• Brain damage: for example, the caudate nucleus, the orbitofrontal cortex and the thalamus.

Possible AO3 content:
• Support for the role of genetics from family studies, e.g. Nestadt et al. found that people with a first degree relative with OCD are more at risk of developing the disorder.
• Brain scans indicate that patients with OCD show heightened activity in their orbitofrontal cortex, e.g. when a patient with a germ obsession holds a dirty cloth.
• Support for the role of genetics from twin studies, e.g. Billett et al. found a higher concordance rate for OCD in MZ than DZ twins.
• Research support for a genetic link to abnormal neurotransmitter levels, e.g. Menzies et al. found people with OCD and their very close relatives have reduced grey matter in key brain regions, including the orbitofrontal cortex.
• Alternative explanations, e.g. psychological explanations, may be better, e.g. OCD may be caused by an association between a neutral stimulus and anxiety.

The biological approach to treating OCD (pages 84–85)

1. D

2. (Specimen answer is supplied in the exam workbook.)

3. a. Data used in a research study that was collected by someone else or for a purpose other than the current one.

   b. Cues that make participants aware of the aims of a study or help them to work out what the investigator expects to find.

   c. The investigator may know whether the participant has received the real drug or a placebo. A researcher who was ‘blind’ to whether the real drug or placebo had been given could be used. This would reduce the possibility of the observations being biased.

   d. Peer review ensures that published research can be taken seriously because it has been independently scrutinised for its validity.

   e. Findings obtained at one time might not hold true at another time with different researchers or different participants. Therefore, research must be replicated before a finding can be accepted as well established.

   f. The abstract contains concise information about the aim, method, results, and conclusion drawn from the study, and enables readers to decide if they are sufficiently interested to read all of the article.


4. Possible AO1 content:
• SSRIs: block the re-uptake of serotonin in the presynaptic neuron, increasing serotonin concentration at receptor site on the postsynaptic neuron.
• Tricyclics: block the transporter mechanism that reabsorbs both serotonin and noradrenaline into the presynaptic neuron that released them.

Possible AO3 content:
• Research support for the effectiveness of drugs, e.g. Soomro et al. found drugs were more effective than placebos at reducing symptoms.
• Drug therapy requires little input or effort from the user, compared with psychological therapies, and so are more economical for the NHS.
• Drugs have unpleasant side effects, e.g. SSRIs can cause nausea, headaches, and insomnia, so patients may not take them, limiting their effectiveness.
• Drugs are not a lasting cure for people with OCD, e.g. Maina et al. found that patients relapsed within a week if treatment stopped.
• There is a publication bias in research for the effectiveness of drug therapy, e.g. Turner et al. found that studies showing positive results were more likely to be published, leading to the possibility of inappropriate treatment decisions.