

Please write clearly in block capitals.

Centre number

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Candidate number

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Surname *StemUp Model Solution*

Forename(s)

Candidate signature

I declare this is my own work.

INTERNATIONAL AS PSYCHOLOGY

Unit 1: Introductory Topics in Psychology

Monday 13 January 2020 07:00 GMT Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

- a calculator, which you are expected to use where appropriate.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- All working must be shown.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 90.

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	



Section A: Memory

Answer **all** questions in the spaces provided.

0	1
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Henry witnesses a man steal some money from a shop and reports the theft to a security guard. The security guard then interviews Henry about the theft.

Explain how **three** components of the cognitive interview could be used by the security guard when interviewing Henry.

[6 marks]

Context reinstatement: the security guard could ask Henry to mentally recreate the context of the theft before he recalls it, e.g. picturing the layout of the shop, what the weather was like outside, what he could hear and how he was feeling at the time. These context cues may trigger memories of the theft, so Henry recalls more accurate detail about the thief.

Report everything: the guard could ask Henry to report every single detail of the theft, even if it seems trivial or irrelevant to him, e.g. what other customers were doing or the colour of the thief's bag. A minor detail may trigger the recall of other, more important information about the man.

Change perspective: the guard could ask Henry to imagine he was the shop owner (or the cashier) and to recall the events of the theft from their point of view. This disrupts the effect of Henry's schemas and may lead him to recall new details he did not report first time.



0 2

Explain **one** difference between the capacity of short-term memory and the capacity of long-term memory in the multi-store model of memory.

[2 marks]

Short-term memory has a very limited capacity, of only about 7 plus or minus 2 items (between 5 and 9 items) of information (Miller), whereas long-term memory has a very large, potentially unlimited, capacity. This means LTM can store far more information than STM.

0 3

Explain **one** difference between the duration of short-term memory and the duration of long-term memory in the multi-store model of memory.

[2 marks]

Short-term memory has a limited duration of around 18 to 30 seconds unless the information is rehearsed (Peterson and Peterson), whereas long-term memory can hold information for very long periods of time, e.g. 50 years or more, potentially a lifetime (Bahrick). So LTM stores information for much longer than STM.

Turn over for the next question

Turn over ►



0 4

Describe and evaluate the working memory model.

[20 marks]

You may use this space to plan your answer.

The working memory model (WMM) was proposed by Baddeley and Hitch (1974) as an updated explanation of short-term memory. Instead of seeing STM as a single, passive store, as in the multi-store model, they described working memory as an active processor made up of several separate components, each with its own limited capacity and type of coding. It explains how we hold and manipulate information while carrying out tasks such as reasoning, reading or mental arithmetic. The central executive is the most important component. It acts as a supervisory system that directs attention to particular tasks and allocates resources to the 'slave systems'. It has a very limited capacity, does not store information itself, and can process information from any sense (it is modality free).

The phonological loop deals with auditory information and codes it acoustically. It has two parts: the phonological store (the 'inner ear'), which holds the words we hear, and the articulatory process (the 'inner voice'), which holds words we are preparing to say and keeps information active through subvocal repetition. Its capacity is about the amount of speech we can say in roughly 2 seconds.

The visuo-spatial sketchpad (the 'inner eye') stores and processes visual



and spatial information, e.g. working out how many windows your house has or planning a route. It codes visually and has a limited capacity of about 3 or 4 objects. Logie suggested it has a visual cache, which stores visual data about form and colour, and an inner scribe, which records the arrangement of objects in space.

The episodic buffer was added by Baddeley in 2000. It is a temporary store with a limited capacity of about 4 chunks, which integrates information from the central executive, the phonological loop, the visuo-spatial sketchpad and long-term memory, and maintains a sense of time sequencing, so that we experience events as a whole. It also links working memory to LTM.

The model explains dual-task performance. If two tasks use the same slave system, e.g. two verbal tasks, they compete for its limited capacity and performance on both falls; if they use different systems, e.g. one verbal and one visual task, they can be done at the same time without interference.

One strength is that the WMM is supported by dual-task studies. Baddeley et al. (1975) found that participants had more difficulty doing two visual tasks at once (tracking a light and describing the letter F) than doing a visual and a verbal task together. This shows that performance suffers when both tasks compete for the visuo-spatial sketchpad, but not when separate components are used, which supports the idea of separate slave systems with limited capacity. The model therefore has strong explanatory power, as it can explain the results of dual-task studies that the MSM cannot.

A further strength is the clinical evidence from case studies of brain damage. Shallice and Warrington (1970) studied KF, who had brain

Turn over ►



damage after a motorcycle accident. His STM for verbal information presented auditorily was very poor, but his recall of visual information was much better. This suggests that STM is not a single unitary store, as KF had a damaged phonological loop but an intact visuo-spatial sketchpad. However, there are problems with using case studies, as KF's brain damage was caused by trauma, which may have affected other cognitive abilities, and findings from one unique individual are hard to generalise.

Brain imaging research also supports the model. Studies using fMRI and PET scans have shown that different areas of the brain are active when people perform verbal and visual tasks, e.g. visual tasks activate the right hemisphere more and verbal tasks the left, while more demanding tasks increase activity in the prefrontal cortex, which may be the location of the central executive. This gives objective, biological evidence that the components are separate.

The WMM is also an improvement on the MSM because it explains how different cognitive processes interact. The MSM sees STM as a passive store that simply holds information until it is rehearsed, whereas the WMM explains how STM is actively used in everyday tasks such as problem solving, reading and doing mental arithmetic. It also explains why rehearsal is not the only way to transfer information to LTM.

The model has practical applications. It provides an explanation for processing deficits, e.g. children with dyslexia or poor working memory may have problems with the phonological loop or central executive.

Teachers can help by breaking information into smaller chunks or presenting it both visually and verbally, so the load on each component is reduced.



Extra space However, a major limitation is that the central executive is poorly understood and difficult to test. Baddeley himself admitted that it was the least understood component, yet it is said to be the most important. It is vague to say it 'allocates attention', and it may not be a single component; Eslinger and Damasio's case study EVR had good reasoning ability but poor decision making, suggesting the central executive may have several parts. This makes the model hard to test and falsify, so it is less scientific.

Another limitation is that much of the research supporting the WMM uses laboratory experiments with artificial tasks, e.g. tracking lights or repeating 'the the the', which are not like the ways we use memory in everyday life. This means the research may lack ecological validity and mundane realism, so the findings may not generalise to real-life memory. However, laboratory experiments are highly controlled, so extraneous variables are minimised and cause and effect can be established, which increases internal validity and makes the studies replicable.

The model also only explains STM and does not fully explain how it interacts with LTM, although the addition of the episodic buffer shows the model has been updated to account for new evidence.

Overall, the working memory model gives a more detailed and plausible explanation of short-term memory than the MSM, and it is supported by a wide range of experimental, clinical and brain imaging evidence, although the role of the central executive still needs to be clarified.



Section B: Social psychology

Answer **all** questions in the spaces provided.

Only **one** answer per question is allowed.

For each question completely fill in the circle alongside the appropriate answer.

CORRECT METHOD



WRONG METHODS



If you want to change your answer you must cross out your original answer as shown.



If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.



0 5

Sian and her friends are taking part in an experiment in which an authority figure orders them each to tell a lie to a stranger. Sian thinks that telling lies is wrong and hears one of her friends disobey the order.

Explain how social support from her friend might cause Sian to resist social influence and disobey the authority figure.

[3 marks]

Sian already thinks that telling lies is wrong, so she is likely to want to

disobey the order. When she hears her friend disobey the authority

figure and refuse to tell a lie, her friend acts as a disobedient model.

This gives Sian social support and increases her confidence that her own

view, that she should not lie, is correct.

Also, because she is not the only one disobeying, Sian's behaviour would

be less likely to stand out and she would feel less pressure from the

authority figure. Therefore she is more likely to resist and disobey, and

not tell the lie to the stranger.



0 6

Mai and three other participants are taking part in an experiment. They have to say out loud the name of a colour they are shown by the researcher. Mai is told that she will say her answer last. The other three participants each say the colour is orange, but Mai thinks that it is red.

Explain how locus of control might cause Mai to resist social influence and not conform with the other participants.

[3 marks]

Mai may have an internal locus of control, where she believes she controls what happens in her life and that her actions are her own choice and responsibility. People with an internal locus of control are more independent and less likely to rely on the opinions of others. As Mai believes she is personally responsible for her own answer, she is more likely to base her decision on her own belief that the colour is red and resist the influence of the other three participants, even though she answers last. Therefore she would say red and not conform with the majority, as she does not agree that the colour is orange.

0 7

In Asch's study, which of the following led to an increase in the level of conformity?

Shade **one** box only.

[1 mark]

A An easier task

☐

B Disagreement between confederates (*friends of the researcher*)

☐

C Fewer confederates (*friends of the researcher*)

☐

D Unanimity

☒

Turn over ►



0	8
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Briefly outline informational influence as an explanation for conformity.

[2 marks]

Informational social influence is when we conform because we accept that the majority's view is correct, and we want to be correct ourselves. It is a cognitive process and is more likely when the situation is ambiguous or others are seen as experts. It usually leads to internalisation, a public and private change of opinion which may be permanent.



0 9

Describe and evaluate normative influence as an explanation for conformity.

[9 marks]

Normative social influence (NSI) is an explanation for conformity where we agree with the majority because we want to be accepted and liked by the group and gain their social approval. It is an emotional process rather than a cognitive one, as we fear rejection or ridicule if we are seen to be different. It usually leads to compliance, where a person publicly agrees with the group and changes their behaviour, but privately continues to disagree. This conformity is superficial and temporary and usually stops when the group is no longer present. NSI is more likely to occur in social situations with strangers, where we are stressed or fear rejection, or with people we know and whose approval we desire.

One strength is that there is research evidence to support NSI. In Asch's (1951) study, participants had to judge which of three comparison lines matched a standard line, and confederates gave unanimous wrong answers on critical trials. Participants conformed on 36.8% of critical trials, and 75% conformed at least once. When interviewed, many said they knew the answers were wrong but went along with the group because they did not want to be ridiculed. When participants could write their answers privately, conformity fell sharply, which suggests that the desire to fit in, NSI, was the main cause.

However, the research supporting NSI often uses artificial situations and tasks, e.g. judging line lengths with strangers in a laboratory, which do not reflect real-life conformity, where the decisions matter and we are with friends. This means the findings may lack ecological validity.

Asch's study also used only American male students, so the findings may not generalise to women or other cultures. It may also lack

Turn over ►

temporal validity, as it was carried out in the 1950s, a very conformist era in the USA.

Another limitation is that there are individual differences in the effect of NSI. McGhee and Teevan found that students who were nAffiliators, with a strong need to be liked, were more likely to conform. This shows NSI does not affect everyone equally, so it is not a complete explanation. There are also gender differences, as some research suggests women are more concerned about social relationships and may conform more due to NSI than men.

NSI is also culture-bound. Smith and Bond found that conformity is higher in collectivist cultures, such as Japan or Fiji, where group harmony is valued, than in individualist cultures such as the USA, so the effect of NSI varies with culture.

Finally, explaining conformity only in terms of NSI is oversimplistic, as NSI and informational social influence usually work together. In Asch's study, dissenters may have reduced the power of NSI by providing social support, or reduced ISI by providing an alternative source of information, so it is hard to isolate the effect of NSI in experiments.



[illegible]

Turn over ►



1 0

Describe and evaluate legitimacy of authority **and** agentic state as explanations for obedience.

[12 marks]

You may use this space to plan your answer.

Legitimacy of authority is the idea that we are more likely to obey people who we perceive to have authority over us. This authority is justified by their position in the social hierarchy of society, e.g. police officers, teachers or doctors. For society to function, most of us accept that some authority figures must be allowed to exercise social power and punish others, and we learn this from childhood. The legitimacy of the authority figure does not need to be genuine, it only has to be perceived as such, e.g. a person wearing a uniform. The context or setting can also legitimise authority: in Milgram's study the prestigious setting of Yale University helped to make the experimenter seem legitimate, and obedience fell from 65% to 47.5% when the study moved to a run-down office.

The agentic state explanation was proposed by Milgram. He suggested that people can be in one of two states. In the autonomous state people act on their own conscience and feel responsible for their actions. When people are given orders by a legitimate authority figure they undergo an agentic shift into the agentic state, where they see themselves as an agent carrying out the wishes of another person. They



'unthinkingly' obey because they do not feel personal responsibility for their behaviour, as responsibility is diffused to the authority figure, which frees them from the demands of their conscience. People often remain in the agentic state because of binding factors, e.g. denial, blaming the victim or not wanting to appear rude, which allow them to minimise or ignore the damaging effects of their behaviour and so reduce their moral strain.

One strength is that there is research support for these explanations. In Milgram's (1963) study, 65% of participants gave the maximum 450V shock when ordered to by an experimenter in a grey lab coat. Many participants asked who would take responsibility if the learner was harmed, and continued when told the experimenter was responsible, which supports the agentic state. When the experimenter was replaced by an 'ordinary man', obedience fell to 20%, supporting the role of legitimacy. Hofling et al. (1966) also found that 21 out of 22 nurses were prepared to give an overdose of a drug when ordered by an unknown doctor over the telephone, showing the power of legitimate authority in a real-life hospital setting. Blass and Schmitt (2001) found that students who watched a film of Milgram's study blamed the experimenter rather than the participant, as they saw him as a legitimate authority.

However, much of this research was carried out in artificial laboratory situations with artificial tasks, such as giving electric shocks, so it may lack ecological validity. Orne and Holland argued that participants may have realised the shocks were not real, so they were not truly obeying. Milgram also used only American men, so the findings may not generalise to women or other cultures.

Legitimacy of authority has high explanatory power, as it can explain

Turn over ►



Extra space *cultural differences in obedience. Kilham and Mann found only 16% of Australian women went to the maximum voltage, whereas Mantell found 85% in Germany, suggesting cultures differ in how far they see authority as legitimate. It can also explain real-life crimes of obedience, e.g. the My Lai massacre, where American soldiers killed civilians when ordered to by officers, as described by Kelman and Hamilton (1989).*

A limitation of the agentic state is that it is an incomplete explanation and cannot explain individual differences. It cannot explain why some people do not obey a legitimate authority figure, e.g. 35% of Milgram's participants did not go to 450V, so we rarely find 100% obedience. It also cannot explain why some people obey even when there is no authority present or ordering them, e.g. Mandel (1998) described German police officers in Reserve Police Battalion 101 who shot Jewish civilians even though they had been told they could refuse without punishment. Dispositional explanations, such as the authoritarian personality, may therefore also be needed.

Overall, legitimacy of authority and the agentic state together give a convincing explanation of why people obey, and are well supported by research, although they do not fully account for individual and cultural differences.



Section C: Psychopathology

Answer **all** questions in the spaces provided.

1	1
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Four definitions of abnormal behaviour are:

- deviation from ideal mental health
- deviation from social norms
- failure to function adequately
- statistical infrequency.

Complete **Table 1** by writing the correct definition of abnormal behaviour from the list above next to the relevant description.

Table 1

Description of abnormal behaviour	Definition of abnormal behaviour
Behaviour which demonstrates an inability to cope with daily routines	<i>Failure to function adequately</i>
Behaviour which is different from the accepted standards in a group	<i>Deviation from social norms</i>
Behaviour which occurs rarely	<i>Statistical infrequency</i>

[3 marks]

Turn over for the next question

Turn over ►



1 2

When he was a child, Reggie was terrified when a spider fell out of a cupboard onto his face. He has now developed a phobia of spiders. Reggie always gets extreme anxiety when he sees spiders and always avoids places where there might be spiders.

1 2 . 1

Briefly outline the process of classical conditioning. How could classical conditioning explain the development of Reggie's phobia of spiders?

[6 marks]

Classical conditioning is learning by association, and it is the first part of Mowrer's two-process model of phobias. It occurs when two stimuli, an unconditioned stimulus (UCS), which naturally produces an unconditioned response (UCR), and a neutral stimulus (NS), which produces no response, are repeatedly paired together in time. Eventually the NS produces the same response as the UCS on its own, so it becomes a conditioned stimulus (CS) producing a conditioned response (CR), and a phobia is acquired.

Before the incident, a spider would have been a neutral stimulus (NS) for Reggie and would not have brought about any fear response.

When the spider fell out of the cupboard onto his face, Reggie saw the spider (NS) at the same time as he experienced the shock of this unpleasant, unexpected event (UCS), which naturally produced a fear response (UCR). An association formed between the spider and the shock of the unexpected event, so both now produce fear.

The spider has now become a conditioned stimulus (CS), and the conditioned response (CR) of fear is triggered every time Reggie sees a spider. Because this fear has generalised to all spiders, Reggie has acquired a phobia of spiders.



1 2 . 2

Briefly outline the process of operant conditioning. How could operant conditioning explain why Reggie continues to have a phobia of spiders?

[6 marks]

Operant conditioning is learning by consequences, through reinforcement, and it is the second part of Mowrer's two-process model, explaining how a phobia is maintained. Positive reinforcement is when a behaviour is followed by a reward, which encourages the behaviour to be repeated.

Negative reinforcement is when a behaviour allows a person to avoid or escape an unpleasant situation, which also encourages the behaviour to be repeated.

Negative reinforcement: whenever Reggie avoids places where there might be spiders, e.g. a garden shed or a dusty cupboard, he escapes the extreme anxiety he feels when he sees a spider. Avoiding the unpleasant feeling of anxiety is rewarding, so his avoidance behaviour is negatively reinforced and he is more likely to avoid these places in the future.

Positive reinforcement: Reggie may also be rewarded by feeling calm and relieved when he avoids places where spiders might be, which encourages him to avoid these places again.

Because Reggie always avoids spiders, he never has the chance to learn that spiders are harmless, so the association between spiders and fear is never extinguished. In this way reinforcement maintains Reggie's phobia of spiders.

Turn over ►



1	3
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Explain **one** strength of systematic desensitisation as a treatment for phobias.

[3 marks]

One strength of systematic desensitisation is that there is evidence for its effectiveness. Gilroy et al. (2003) found that patients with spider phobia treated with SD were less fearful than a control group treated only with relaxation, both at three months and 33 months later. This shows SD is an effective, long-lasting treatment for phobias.



1 4

Describe and evaluate cognitive behaviour therapy (CBT) as a treatment for depression.

[12 marks]

You may use this space to plan your answer.

Cognitive behaviour therapy (CBT) is based on the cognitive explanation of depression, which suggests that depression is caused by faulty, irrational thinking, such as Beck's negative triad: negative views of the self, the world and the future. The aim of CBT is to identify these negative and irrational thoughts, challenge them, and replace them with more positive and rational ones.

At the start of therapy the therapist and the client identify the client's goals and their negative thoughts. This 'thought catching' requires the client to gather evidence of behaviours and incidents linked to negative thinking. The client is often given homework assignments, e.g. keeping a diary to monitor events and record the situations in which negative thinking occurs, so that these can be targeted.

In Beck's cognitive therapy, the client acts as a 'scientist' and carries out hypothesis testing: the evidence they have gathered is compared with the thought they have expressed, e.g. 'nobody likes me', to check whether the two match. Usually they do not, which challenges the irrational belief. In Ellis's rational emotive behaviour therapy (REBT), the therapist uses rational confrontation, disputing the client's irrational

Turn over ►



beliefs, e.g. by pointing out that there is no evidence for them (empirical argument) or that they are not logical (logical argument).

Clients are also taught to use positive self-talk, and positive thoughts and behaviours are reinforced, e.g. by praising the client or by scheduling pleasant activities. This cognitive restructuring leads to more rational thinking, so the client's mood improves.

One strength is that there is evidence to support the effectiveness of CBT. March et al. (2007) compared CBT, antidepressants and a combination of the two in 327 adolescents with depression. After 36 weeks, 81% of the CBT group and 81% of the antidepressant group had significantly improved, and 86% of the combination group. This suggests CBT is as effective as drug treatment, without the side effects. Keller et al. (2000) also found that a combination of CBT and drugs was more effective than either alone.

Another strength is that CBT programmes can be individualised, so CBT can be used with a wide variety of patients with different symptoms and needs. It can also be delivered online or in groups, which makes it more accessible and cheaper.

However, CBT may not work for everyone. Some depressed patients lack the motivation or attention to engage with the process and complete homework, and those with very rigid attitudes may be resistant to change. Patients with severe depression may first need antidepressants before they can benefit from CBT.

The success of CBT may also not be due to its specific cognitive techniques. Robinson et al. (1990) found that CBT was no more effective than other psychotherapies, suggesting improvements may be due to the patient's relationship with the therapist, a common factor in



all therapies, rather than the change in cognitions.

Finally, CBT emphasises changing the client's thinking but does nothing to change external factors, such as poverty, abuse or bullying, which may cause the depression. It may therefore blame the client for their depression and, if their situation does not change, they may relapse.

Overall, CBT is an effective and widely used treatment for depression, although it may be most effective when combined with drug treatment and support with real-life problems.

END OF QUESTIONS



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