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**Cambridge International Advanced Subsidiary and Advanced Level**

# MARK SCHEME for the May/June 2015 series

## 9698 PSYCHOLOGY

**9698/13** Paper 1 (Core Studies 1), maximum raw mark 80

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**1 In the study by Mann et al. (lying) they suggested that an important comparison had been <u>omitted</u>, one between high-stakes liars who deny an offence they have committed with high-stakes truth-tellers who plead innocence when falsely accused.**

**(a) Describe why this omission was important. [2]**

The behaviours might be similar because both might experience, and perhaps to the same extent, emotions and/or cognitive load and/or might attempt to control their behaviour.
Thus high stakes truth tellers might be mistaken for high stakes liars and the innocent might be wrongly convicted.

1 mark partial (brief), 2 marks full (some detail)

**(b) Suggest <u>one</u> factor that could be controlled in this new comparison. [2]**

the type of crime (truth-telling when the crime is unpleasant, e.g. rape, may be just as distressing)
the severity of the crime (truth-telling when it really matters may be just as distressing)
the experience the individuals have of the justice system (truth-tellers may be less likely to have been in court before)

1 mark partial (brief), 2 marks full (some detail)

**NB** one factor only

**2 From the study by Held and Hein (kitten carousel):**

**(a) Describe how the exposure apparatus was given 'texture' (a visual pattern). [2]**

stripes
vertical (1 inch wide)
of black and white (masking tape separated by 1 inch of bare metal)
the rough side of a piece of masonite on the floor (hardboard)

1 mark partial (basic and limited), 2 marks full (detail)

Stripy walls and a rough floor. 2 marks
black and white vertical stripes on the walls. 2 marks

**(b) Why was this visual pattern important to the experiment? [2]**

So that the passive kitten would have a changing visual experience as it moved
so that its form vision could develop normally

1 mark partial (brief), 2 marks full (some detail)

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**3 From the study by Piliavin et al. (subway Samaritans):**

**(a) Explain how qualitative data were collected in the study. [2]**

'Each observer spoke to the person seated next to her after the incident took place. She also noted spontaneous comments and actions by those around her. A content analysis of these data was performed.' OWTTE

'Both observers recorded comments spontaneously made by nearby passengers and attempted to elicit comments from a rider sitting next to them.' OWTTE

1 mark partial (brief), 2 marks full (some detail)

**(b) Describe <u>two</u> qualitative findings from the study. [2]**

'The discomfort observers felt in sitting inactive in the presence of the victim may have led them to talk about the incident, perhaps hoping others would confirm the fact that inaction was appropriate. Many women, for example, made comments such as, "It's for men to help him," or "I wish I could help him – I'm not strong enough," "I never saw this kind of thing before – I don't know where to look," "You feel so bad that you don't know what to do,"'

1 mark partial (one finding described), 2 marks full (two findings described)

**4 During the study by Bandura et al. (aggression) the researchers took each child into a room containing attractive toys with which they were allowed to play for a short time but were then told to leave.**

**(a) Identify <u>two</u> toys in this room. [2]**

fire engine, locomotive, jet fighter plane, cable car, (colourful) spinning top, doll set (with wardrobe, doll carriage, baby crib).

1 toy = 1 mark, X2

**(b) Explain why this part of the procedure was necessary. [2]**

To instigate aggression/to frustrate them
because observation of aggression tends to reduce aggressive performance
so the aggressive model group would be less likely to demonstrate aggression generally

because if the participants in the non-aggressive condition expressed little aggression if it were instigated, this would suggest inhibition of aggression in this condition.

1 mark partial (brief/muddled)
2 marks full (one detailed explanation or two brief)

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**5 In the study of little Hans, Freud notes that there are both advantages and disadvantages to using children in research.**

**(a) Describe <u>one</u> possible advantage of using a child in this study. [2]**

Allows for the study of development/change
– of a phobia/of psychosexual development
We can tell when children are lying
– e.g. when he agreed with his father because he was undecided himself

1 mark partial (advantage, however detailed),
2 marks full (advantage linked to study, however briefly)

**(b) Describe <u>one</u> possible disadvantage of using a child in this study. [2]**

Children may be untrustworthy/ may give arbitrary answers
– Hans may have made up fantasies
Children may be more susceptible to leading questions/suggestions
– e.g. when responding to 'Like daddy's because you'd like to be daddy'.

1 mark partial (disadvantage, however detailed),
2 marks full (disadvantage linked to study, however briefly)

**6 In the study by Langlois et al. (infant facial preference) comparisons of fixation time were made between high and low attractiveness faces.**

**(a) Describe the data from study 1 (white male and female faces). [2]**

Babies fixated for longer on high attractiveness (7.82) **than** low attractiveness (7.57)
and this difference was significant
looked longer at same-sex (but only significant for boys)
unaffected by order of presentation

1 mark partial (brief/muddled)
2 marks full (some detail, numerical or non-numerical)

**(b) Describe the data from study 2 (black female faces). [2]**

Babies fixated for longer on high attractiveness (7.05) **than** low attractiveness (6.52)
and this difference was significant
unaffected by gender of the infant participant
but looked longer in first two trials
no effect of maternal attractiveness

1 mark partial (brief/muddled)
2 marks full (some detail, numerical or non-numerical)

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**7 From the study by Nelson (children's morals):**

**(a) Explain what was meant by 'outcome'. [2]**

The consequences of an action (i.e. what happens as a result of a behaviour)
and whether these are positive (good things happen e.g. they play: the friend catches the ball) or negative (bad things happen e.g. the 'friend' gets hit by the ball)

The examples of outcomes used in the study are likely to be used to illustrate the explanation. However, a description of the study alone is not an explanation.

1 mark partial (brief/muddled/only stating IV relating to outcome, not what 'outcome' itself means)
2 marks full (some detail)

**(b) Explain why Nelson believed it was necessary to investigate the effect of outcomes. [2]**

so it was not known whether the type of outcome affects children's understanding and use of motives as moral criteria.
Because children might believe that motives and outcomes are logically linked, i.e. that one implies the other)
*Because previous studies had:*
not presented outcome information (Lyons-Ruth)
not varied outcome information (Keasey)

1 mark partial (brief/muddled), 2 marks full (some detail)

**8 In the study by Schachter and Singer (emotion) the physical effects of epinephrine were measured using self report scales.**

**(a) Describe the scales used to measure the effects of epinephrine. [2]**

Forced choice
4 point
Not at all (0) – An intense amount (4)

1 mark per idea, **X 2**

**(b) Identify <u>one</u> strength and <u>one</u> weakness of the scales. [2]**

*Strength*: 4 point scale forces P to make a choice so they don't just
answer the easy 'middle' one
collects quantitative data, so easy to analyse/objective
*Weakness*: 4 point scale forces participant to make a choice (between positive and negative) so they may not be able to give the answer they really feel
There are other symptoms of adrenalin that are not asked about so they could have been affected but this might not have been identified

1 mark for a strength (however brief, does not have to be contextualised explicitly, so long as it applies to the scales)
1 mark for a weakness (however brief, does not have to be contextualised explicitly, so long as it applies to the scales)

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**9 From the study by Dement and Kleitman (sleep and dreaming):**

**(a) Describe the findings relating to average sleep time. [2]**

Range 4h20m–7h50m
Average 6 hours (and 3 minutes)

1 mark partial (general comment)
2 marks full (some detail e.g. range, mean, data relating to several participants)

**(b) To what extent are these findings likely to be typical of the normal sleep times for these participants? [2]**

Typical because the range probably reflects those who normally sleep for longer and or shorter times.
Not typical because the lab conditions probably made them sleep less
Not drinking alcohol might have made them sleep more/less
Not drinking caffeine might have made them sleep more
Being woken up meant that they had less opportunity to sleep

1 mark partial (1 point), 2 marks full (some detail: 2 points)

**10 In the study by Maguire et al., the taxi drivers were required to describe famous landmarks.**

**(a) Describe the procedure of this task. [2]**

They had to describe landmarks that were:
world-famous, non-London
that they had never visited (but were able to visualize)
whilst inside a (PET) brain scanner
and their speech output was recorded for analysis

1 mark partial (brief/muddled), 2 marks full (clear statement including details of the task and/or the scanning/speech output)

**NB** repeating the stem (describing famous landmarks) does not earn marks.

**(b) Identify <u>one</u> task that the landmarks task was compared to, and say why it was important. [2]**

routes: comparison of **topographical** sequencing task
film frames: comparison of non-topographical **sequencing** task
control: comparison for (non-topographical, non-sequencing) **speech** output task.

1 mark partial (identifies only a comparison task)
2 marks full (identifies a comparison task and gives reason)

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**11 From the study by Demattè et al. (smells and facial attractiveness):**

**(a) Describe the results for facial attractiveness with pleasant compared to unpleasant smells. [2]**

'participants evaluated the faces as being significantly less attractive when presented together with an unpleasant odor (mean =4.42) than when presented with either a pleasant odor (mean = 4.85, **t** (15) = 5.45, **P** < 0.001)'

faces were preferred with pleasant smells (compared to unpleasant ones)
pleasant mean = 4.42, unpleasant mean = 5.45 / greater preference by approximately 25%

1 mark partial pleasant preferred, 2 marks full (data or examples of smells used appropriately)

**NB** It looks like twice as much on the graph but it doesn't have zero at the origin, so this is incorrect.

**(b) Describe the results for facial attractiveness with pleasant smells compared to the control condition. [2]**

'no significant difference in participants' mean facial attractiveness responses under conditions of pleasant versus neutral olfactory stimulation'

there was no difference
control = 4.9

1 mark partial (brief, muddled)
2 marks full (some detail, does not have to be numerical)

no significant difference between control and pleasant smells. 2 marks
neutral/clean air was slightly higher (more preferred) but there was no difference. 2 marks

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**12 In the study by Rosenhan he concludes that physicians have a bias that makes them see a sane person in hospital as insane. There are other possible reasons for diagnosing sane pseudo-patients as insane.**

**(a) Suggest <u>two</u> other possible reasons. [2]**

On release they were (mainly) given labels of 'schizophrenia in remission'
The hospital records may have been suspect
The hospitals may have been of poor quality
There was not enough time to observe the pseudo-patients
The pseudo-patients were not behaving sanely
Physicians cannot tell the difference between the sane and the insane

1 reason = 1 mark **X 2**

**(b) Explain why these alternative reasons could be wrong. [2]**

*'schizophrenia in remission':* not just a formality
*The hospital records* were not *suspect*
*The hospitals* were varied but many were high *quality*
*There was* plenty of *time to observe the pseudopatients,* up to 52 days
*The pseudopatients* were *behaving sanely,* as indicated by their visitors and other patients' comments.

1 mark partial (explains only one reason)
2 marks full (explains two reasons)

**13 In the study by Thigpen and Cleckley (multiple personality disorder) Eve Black is described as lacking concern for Eve White's child.**

**(a) Describe a situation in which Eve Black's lack of concern for the child became dangerous. [2]**

"Though as a rule only indifferent, passively callous to her alternate's child, Eve Black once in the past became irritated with her and hurt her. Apparently she might have done her serious harm had her husband not restrained her."

1 mark partial (brief, muddled), 2 marks full (some detail)

**(b) Describe how Eve Black responded when later asked about this dangerous situation. [2]**

"This act she denied and lied about consistently though the evidence for it through others is strong. Later she flippantly confessed, giving as her reason, "The little brat got on my nerves." "

1 mark partial (brief, muddled), 2 marks full (some detail)

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**14 In the study by Billington et al. (empathising and systemising) the SQ-R was given to physical sciences and humanities students. The SQ-R investigates systemising in various domains, such as the 'natural' domain which includes weather systems.**

**(a) Name <u>two</u> other domains. [2]**

technical (e.g. machines and tools)
abstract (e.g. mathematics)
social (e.g. a political system)
spatial (e.g. map reading)
organisable (e.g. a taxonomy)

1 domain name or the example **X 2**

The spatial domain and the map reading domain. 1 mark

**(b) Outline the tripartite (three part) structure that all systems share. [2]**

"Although systems exist in a variety of domains, they all share the same tripartite structure: they can all be analysed in terms of an INPUT – OPERATION – OUTPUT principle. Input is defined as the initial state of the system; output is the subsequent state of a system, whilst operations are defined as actions that transform input to output."

1 mark partial (brief), 2 marks full (some detail, e.g. one definition)

INPUT – OPERATION – OUTPUT. 2 marks (any 2 = 1 mark)

**15 The research method used in the study by Veale and Riley (mirror gazing) was an experiment.**

**(a) Explain why this study was an experiment. [2]**

has IV and DV (only if not next 2 points)
different participants were obtained for the IV (BDD or control)
DV (of time in front of mirror etc.) is measured
comparison between groups (BDD/control) / looking for differences (between BDD/control)
controls employed (e.g. deliberate matching of participants)

1 mark partial, 2 marks full (any two points, well explained or several weakly).

Points do not have to be contextualised for full marks but is likely to provide detail.

**(b) Outline <u>one</u> advantage of experiments using Veale and Riley as an example. [2]**

controls employed: as gender and age may affect mirror gazing, controls were matched on these two variables.
can manipulate IV: BDD were all diagnosed under DSM-IV (and controls did not have a diagnosis)

1 mark partial (advantage only, however detailed)
2 marks full (advantage and context, however brief)

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**16 Evaluate <u>one</u> of the studies listed below in terms of its strengths.**

**Baron-Cohen et al. (eyes test)**
**Haney, Banks and Zimbardo (prison simulation)**
**Dematte et al. (smells and facial attractiveness)** **[10]**

No marks for description of study.
Description of strengths and evaluation of strengths are creditworthy; either approach, or a combination, can earn full marks.
Max 5 if only one strength.

| Comment | Mark |
|---|---|
| No answer or incorrect answer. | 0 |
| Anecdotal evaluation, brief detail, minimal focus. Very limited range. Evaluation may be inaccurate, incomplete or muddled. | 1–3 |
| **Either** points illustrating strengths of the study lack depth and/or breadth **or** only one strength is considered. The answer is general rather than focused on study but shows some understanding. | 4–5 |
| **Two or more strengths** of the study are considered and argument is focused on the study although the evaluation may be imbalanced in terms of quality and/or depth. The answer shows reasonable understanding. | 6–7 |
| Good detail for at least two strengths and these are focused on the study. Evaluation is detailed with good understanding and clear expression. | 8–10 |

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**Baron-Cohen et al.**

- revised eyes test more valid/**reliable** than original (glossary, choices etc.)
- *but* only quantitative data were collected from eyes test and beliefs about the feelings of another person are complex, so more in-depth information may have been able to provide a more detailed insight into (abnormal) perception of emotional states.
- lab experiment so able to carefully select **control** groups, e.g. IQ matched to eliminate possible confounding variables.
- *but* lab experiments may not represent real world situations e.g. emotions are usually judged from whole faces, with bodies, that move, in context, whereas responding to the eyes test involves decision making on static eyes alone, so may not be valid.

**Haney, Banks and Zimbardo**

- very few 'rules' given to participants, so behaviours were a **valid** representation of the effects of a prison situation on prisoners/guards
- *but* the participants knew it was only a simulation, so may not have been as realistic as it appeared, and at least one of the guards indicated this
- **ethical/methodological** strength that all participants were screened for psychological health etc.
- *but* findings only based on male guards and prisoners, so findings may not apply to females, especially as females respond differently to situations (such as authority) differently from males and emasculation wouldn't be effective as a way to impose authority.

**Demattè et al.**

- lab experiment so had rigorous **controls** e.g. strength of odours, duration of face presentation so reliable data
- *but* lab experiments may not represent real world situations e.g. usually judge attractiveness when opposite a person, not a machine and social context, voice, personality etc. also affect choices
- experiment so able to make direct comparisons because manipulating variables (of odour type) so can draw **causal conclusions** about the effect on attractiveness
- *but* only tested females' attractiveness to males, so cannot generalise to attractiveness of smells for male heterosexuals or for homosexuals as causal conclusions may be invalid

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**17 Use <u>one</u> of the studies listed below to discuss situational explanations of behaviour.**

**Loftus and Pickrell (false memories)**
**Milgram (obedience)**
**Tajfel (intergroup categorisation)** **[10]**

No marks for description of study.
Max 5 if only about situational explanations or only about individual explanations.

| Comment | Mark |
|---|---|
| No answer or incorrect answer. | 0 |
| Anecdotal evaluation, brief detail, minimal focus. Very limited range. Evaluation may be inaccurate, incomplete or muddled. | 1–3 |
| **Either** points illustrating the extent to which a situational explanation is supported lack depth and/or breadth **or** only supporting/conflicting points are considered. The answer is general rather than focused on study but shows some understanding. | 4–5 |
| **Both** supporting and conflicting points are considered and argument is focused on the study although the evaluation may be imbalanced in terms of quality and/or depth. The answer shows reasonable understanding. | 6–7 |
| Balance of detail between points supporting and conflicting with a situational explanation are considered and are focused on the study. Evaluation is detailed with good understanding and clear expression. | 8–10 |

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**Loftus and Pickrell**

- *support*: situational factor provided by (true and false) context of memories in booklet led participants to 'recall' false event
- some participants embellished the memory, suggesting the situation had a powerful influence
- *conflict*: some participants did not 'recall' the false event at all, so there are individual differences in the extent of the effect of the situation
- even when participants did 'recall' the false event, this was typically quite a vague memory

**Milgram**

- *support*: obedience affected by aspects of setting: authority figure, lab coat, prestigious university, prods
- data confirms effectiveness of situation, all participants went to 300V etc.
- *conflict*: individual differences in obedience suggest factors other than the environment also important, not all participants reached 450V
- situational factor of payment did not affect the obedience rates of student participants in Milgram's original research (students were paid – see footnote)

**Tajfel**

- *support*: the situational factor of the (apparent but actually random) groupings were influential in the boys' allocation of points
- this effect of the situation arose even though the boys had been led to believe the groups were formed on flimsy groups (minimal groups), so that the identity that had been created by the situation could not have been that strong
- *conflict*: the results are averaged, so there could have been differences in the extent to which individual boys responded to the situational factor of groupings. If so, this would suggest that the situation alone was not the only factor.
- in real situations of intergroup discrimination, the effects of group identity are only partly responsible, other factors such as competition for scarce resources (e.g. jobs) are also important.

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