

Mark Scheme Results

Summer 2009

GCE

GCE Psychology (6PS01/01)



General Guidance on Marking

All candidates must receive the same treatment.

Examiners should look for qualities to reward rather than faults to penalise. This does NOT mean giving credit for incorrect or inadequate answers, but it does mean allowing candidates to be rewarded for answers showing correct application of principles and knowledge.

Examiners should therefore read carefully and consider every response: even unconventional answers may be worthy of credit.

Candidates must make their meaning clear to the examiner to gain the mark. Make sure that the answer makes sense. Do not give credit for correct words/phrases which are put together in a meaningless manner. Answers must be in the correct context.

Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the Team Leader must be consulted.

Using the mark scheme

The mark scheme gives:

- an idea of the types of response expected
- how individual marks are to be awarded
- the total mark for each question
- examples of responses that should NOT receive credit (where applicable).

- 1 / means that the responses are alternatives and either answer should receive full credit.
- 2 () means that a phrase/word is not essential for the award of the mark, but helps the examiner to get the sense of the expected answer.
- 3 [] words inside square brackets are instructions or guidance for examiners.
- 4 Phrases/words in **bold** indicate that the meaning of the phrase or the actual word is **essential** to the answer.
- 5 TE (Transferred Error) means that a wrong answer given in an earlier part of a question is used correctly in answer to a later part of the same question.

Quality of Written Communication

Questions which involve the writing of continuous prose will expect candidates to:

- show clarity of expression
- construct and present coherent arguments
- demonstrate an effective use of grammar, punctuation and spelling.

Full marks can only be awarded if the candidate has demonstrated the above abilities.

Questions where QWC is likely to be particularly important are indicated "QWC" in the mark scheme BUT this does not preclude others.

Unit 1: Social and Cognitive Psychology

Section A

Question Number	Question	
1	Which of the following is an example of social comparison?	
	Answer	Mark
	A. Khuram wears the shirt of the local cricket team he supports B. Rosie is a basketball supporter and goes to more away games than her friends. C. Max tells his friend that all the other football teams cheat more than his team. D. Shakira adopts the identity of her rugby team	(1 AO1)

Question Number	Question	
2	In Hofling's study on obedience it was found that ____ out of 22 nurses obeyed the doctor's instructions.	
	Answer	Mark
	A. 18 B. 20 C. 21 D. 22	(1 AO1)

Question Number	Question	
3	Godden and Baddeley's study on context dependent memory found that:	
	Answer	Mark
	A. Words were remembered better when recalled in the same environment B. Words were remembered better when recalled in a different environment C. There was no difference in words remembered regardless of environment D. Words were remembered better underwater than on land in all conditions	(1 AO3)

Question Number	Question	
4	Your teacher is demonstrating Levels of Processing theory and asks you a number of questions. Which two of the following questions would result in the lowest level of recall?	
	Answer	Mark
	A. Does it rhyme with 'lot'? B. Has it got 6 letters in it? C. Is it an item of clothing? D. Is it in small letters? E. Is it a type of fruit?	(2 AO3)

Question Number	Question	
5	The measurement that has as many scores above it as below it is known as the	
	Answer	Mark
	A. Mean B. Mode C. Median D. Range	(1 AO3)

Question Number	Question	
6	Practice and _____ effects are examples of order effects.	
	Answer	Mark
	A. Demand B. Fatigue C. Experimenter D. Interviewer	(1 AO3)

Question Number	Question	
7	Structured interviews involve	
	Answer	Mark
	A. Fixed, predetermined questions B. No fixed questions or ways of answering C. Open-ended questions with phrasing and timing left up to the interviewer D. The interviewer's next question depending upon the interviewee's last answer	(1 AO3)

Question Number	Question	
8	A weakness of the volunteer sampling method is	
	Answer	Mark
	A. Biased as every fifth person is chosen B. Can be very time consuming and expensive C. Can be unrepresentative through choosing only friends and family D. Biased as participants tend to be more motivated and perform better	(1 AO3)

Question Number	Question	
9	You are conducting your first psychology practical and you have written a hypothesis. Your teacher asks you to define your variables so they can be precisely measured. What is this process known as?	
	Answer	Mark
	A. Experimenter effects B. Randomisation C. Operationalisation D. Order effects	(1 AO3)

Question Number	Question	
10	In _____ designs the same participants are used in both conditions.	
	Answer	Mark
	A. cross-sectional B. Independent groups C. Matched pairs D. Repeated measures	(1 A03)

Section B.

Question Number	General Instructions
11	Marking points are indicative, not comprehensive and other points should be credited. In each case other words to that effect. Each bullet point is a marking point unless otherwise stated, and each point made by the candidate must be clearly and effectively communicated. If more than one answer given accept the first one

Question Number	Question							
11	A field experiment was carried out to see if environmental cues can aid recall. A student ice hockey team learned a list of 20 unrelated words in an ice rink. Half the group were then taken to a library (control group) whilst the other half (experimental group) stayed in the ice rink. Both groups then had to recall as many of the 20 words as possible. The results are shown in the table below: <table border="1"> <tr> <th></th><th>Control group (Library)</th><th>Experimental group (Ice rink)</th></tr> <tr> <td>Mean Number of Words Recalled (out of 20)</td><td>10</td><td>16</td></tr> </table>		Control group (Library)	Experimental group (Ice rink)	Mean Number of Words Recalled (out of 20)	10	16	
	Control group (Library)	Experimental group (Ice rink)						
Mean Number of Words Recalled (out of 20)	10	16						
(a)	Which design is being used in this study?							
	Answer	Mark						
	Reject methods or 'different participants'. If more than one answer given accept the first one. • Independent measures • Unrelated design • Independent groups • Independent [single word only] • Between groups design • Unrelated [single word only]	(1 AO3)						

Question Number	Question	
(b)	Explain why this design is appropriate for this study.	
	Answer	Mark
	2 marks for a complete answer, 1 mark for a partial answer. If more than one advantage given mark all and credit the best. There is no practice/fatigue effect/eq; 1 mark As the participants either went to the library or the ice rink/eq; 1 mark No order effects/eq; 1 mark No order effects as different participants are used in each condition/eq; 2 marks Need two groups to compare the results/eq; 1 mark A comparison group is required to see if the change in environment had an effect on recall/eq; 2 marks Look for other reasonable ways of expressing this answer	(2 AO3)

Question Number	Question	
(c)	Which measure of central tendency is being used in the table above?	
	Answer	Mark
	If more than one answer given accept the first one • Mean	(1 AO3)

Question Number	Question	
(d)	Would this study have high or low validity? Explain your answer.	
	Answer	Mark
	2 marks for a complete answer, 1 mark for a partial answer. A suitable example would serve as elaboration. MAX 1 mark if no reference made to the actual study. High validity as it was in a natural setting for the hockey team (ice rink)/eq; 1 mark Even the students in the library were in their natural setting as well as those in the ice rink which would be high validity/eq; 1 mark Low validity as learning a wordlist is an artificial task which is not carried out in everyday life/eq; 1 mark Low (construct) validity as a task such as learning a list of words may not be testing how memory normally works/eq; 1 mark Look for other reasonable ways of expressing this answer	(2 AO3)

Question Number	Question	
(e)	The researchers would have followed ethical guidelines. With reference to this study, explain two ethical guidelines they would have to consider.	
	Answer	Mark
	1 mark for each guideline (ID mark) + 1 for each explanation NB: 1 mark for ID, second mark in each case must relate the study to the ethical guideline to gain credit There are many guidelines that could be chosen. If more than two are given mark all and credit the best. Right to withdraw; ID mark The ice hockey team/players had to know that they could pull out from the memory experiment at any time and withdraw the data they had recalled/eq; Debriefing; ID mark The ice hockey team should be told all about the purpose of the experiment on cue dependent memory so they know what they have participated in/eq; Informed consent; ID mark The ice hockey team/student team must give their permission to take part in the memory experiment after they are told what is involved/eq; Confidentiality; ID mark The results and personal details of the ice hockey team/‘group’ should not in any way be made public to anyone without their permission/eq; Look for other reasonable ethical guidelines and other ways of expressing this answer	(4 AO3)

Question Number	Question	
(f)	Outline one weakness of field experiments in general.	
	Answer	Mark
	2 marks for a complete answer, 1 mark for a partial answer. If more than one weakness mark all and credit the best E.g. Lack of full control over variables/eq; 1 mark Difficult to replicate due to lack of full control over extraneous variables /eq; 2 marks E.g. <u>Could</u> be lack of informed consent/eq; 1 mark Informed consent is difficult to obtain as informing the participants they are being studied would disrupt natural behaviour/eq; 2 marks E.g. May be more expensive and time consuming/eq; 1 mark The researcher may require additional skills in arranging and setting up a field experiment compared to the skills required for a lab experiment/eq; 2 marks Look for other reasonable ways of expressing this answer	(2 A O 3)

Question Number	Question											
12 (a)	Complete the table below. For the following statements write either prejudice or discrimination in the appropriate box.											
	Answer	Mark										
	No credit for more than one answer given in any one box. No marks for 0 or 1 correct. 1 mark for 2 or 3 correct. 2 marks if all four correct. Accept 'P' or 'D' or 'Prej' and 'Disc' [or any other short appropriate abbreviation] <table><tr><th>Statement</th><th>Prejudice or Discrimination</th></tr><tr><td>A doorman refuses entry to a group of teenagers into a nightclub because the males are not wearing ties.</td><td>Discrimination</td></tr><tr><td>Nick believes all women drivers are rubbish and should not be allowed on the road.</td><td>Prejudice</td></tr><tr><td>Edith applies for a job but does not get it because the manager wants a younger person.</td><td>Discrimination</td></tr><tr><td>Beth is rejected from Claire's social networking site because of her taste in music.</td><td>Discrimination</td></tr></table>	Statement	Prejudice or Discrimination	A doorman refuses entry to a group of teenagers into a nightclub because the males are not wearing ties.	Discrimination	Nick believes all women drivers are rubbish and should not be allowed on the road.	Prejudice	Edith applies for a job but does not get it because the manager wants a younger person.	Discrimination	Beth is rejected from Claire's social networking site because of her taste in music.	Discrimination	(2 AO1)
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Question Number	General Instructions
12(b) - 15	Marking points are indicative, not comprehensive and other points should be credited. In each case other words to that effect. Each bullet point is a marking point unless otherwise stated, and each point made by the candidate must be clearly and effectively communicated. 1 mark per marking point or elaboration unless otherwise stated.

Question Number	Question	
(b)	Describe Social Identity Theory as an explanation of prejudice.	
	Answer	Mark
	1 mark for each point and/ or elaboration. Examples should be credited if they help illustrate a point and are fully explained max 1 mark. If all 3 processes below are named but not elaborated then Max 1 list mark. The full range of marks can be accessed for description of SIT without any reference to these 3 terms. • Prejudice can be explained by our tendency to identify ourselves as part of a group, and to classify other people as either within or outside that group/eq; • Conflict may not even be necessary for prejudice to occur, merely being in a group and being aware of the existence of another group is sufficient for prejudice to develop/eq; • <i>Social categorisation</i> → we categorise ourselves and others as members of particular social groups/eq; • <i>Social identification</i> → we adopt the identity of the group we have categorised ourselves as belonging to/eq; • <i>Social comparison</i> → this is the final stage, once we have categorised ourselves as part of a group and identified with that group, we compare that group with others/eq; • We deliberately put down others to try and raise our own self - esteem/eq; • E.g. Males will dismiss women's driving ability to make themselves feel better/eq; Look for other reasonable marking points.	(4 AO1)

(c)	Young people are getting a 'bad press' coverage for hanging around towns in groups and wearing 'hoodies'. Using Social Identity Theory explain why teenagers might be getting negative media coverage.	
	Answer	Mark
	If no reference to concepts from SIT then max 1 mark. The teenagers can be discussed as being part of the in group or the out group. • Teenagers tend to classify themselves as part of a group and classify others as either in or outside that group/eq; • The bad press is coming from others/the out group who cannot identify with the teenagers/eq; • Teenagers are therefore put down in order for the self esteem of the other groups to be maintained/eq; • This might be self fulfilling so teenagers take on board the label and act accordingly/eq; Look for other reasonable marking points.	(3 AO2)

Question Number	Question	
13(a)	You will have studied two of the following studies in detail from social psychology. Hofling et al (1966) Sherif (1961/1988) Tajfel et al (1970/1971) Reicher and Haslam (2003/2006) State the aim of your chosen study.	
	Answer	Mark
	E.g. Hofling et al (1966) • To see whether nurses would obey doctors / authority figures/eq; • To see if nurses would obey doctors who were authority figures even if it meant breaking hospital regulations/eq; 2 marks • To discover whether nurses would comply with an instruction which would involve them having to infringe both hospital regulations & medical ethics/eq; 2 marks	(2 AO1)

	E.g. Sherif (1961/1988) • To see if in and out groups would cause prejudice/eq; • To see if working together on a common goal would reduce the prejudice/eq; • To test the idea that if you create an in-group/out-group situation and then creating conflict between them, prejudice will arise/eq; 2 marks • To see if prejudice would be reduced if the two groups were set a (superordinate) goal that needed their co-operation to achieve/eq; 2 marks E.g. Tajfel et al (1970/1971) • To see if in groups and out groups would cause prejudice/eq; • To see if members of the groups only allocated points to their own in group/eq; • To see if participants consistently displayed prejudice towards those identified as being in the same group as themselves, and against those as being identified as in a different group/eq; 2 marks • Whether being categorised as belonging to one of two groups was sufficient to induce prejudice against the other group/eq; 2 marks E.g. Reicher and Haslam (2003/2006) • To see how social roles affect a person's behaviour in an artificial setting/eq; • To see if being in an institution changes the behaviour of groups/eq; • To see how people define themselves in terms of their ascribed group memberships and act in terms of group identities/eq; 2 marks • To create an institution that resembled a prison to investigate the behaviour of groups that were unequal in terms of power, status, and resources/eq; 2 marks Look for any other reasonable marking points	
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Question Number	Question	
13 (b)	Evaluate your chosen study.	
	Answer	Mark
	The evaluation must come from the same study outlined in 13 (a) which must be one from the list. TE: If (a) is blank and (b) correctly gives an evaluation of one of the studies in the list then (b) can gain up to 4 marks. If (b) evaluates one of the listed studies but a different one from that given in (a) then if the evaluation is appropriate ,maximum 2 marks.	(4 AO2)

	The answer must evaluate one of the four specified studies or zero marks. One point per evaluation or for elaboration unless otherwise indicated. Giving marks for elaboration where appropriate is particularly important so that the full range of marks is available. E.g. Hofling (1966) • The breaking of regulations may have been through fatigue and not obedience/eq; 1 mark • Results may only be generalisable to American nurses in the 1960's/eq; 1 mark • The nurses self esteem may have been damaged by the experiment/eq; 1 mark • It was high in ecological validity as nurses were being studied in their normal environment (1 mark) doing their usual work in their ward in a hospital which they are familiar with /eq; 1 mark (elaboration) • The study has implications for nurses training and hospital policy. Hofling has shown how nurses could breach hospital regulations and endanger the lives of patients/eq; 2 marks • The nurses did not give informed consent to take part in the experiment. They were unaware they were part of a study which breaks one of the BPS guidelines which states experimenters must gain their participants permission before using them in psychological investigations/eq; 2 marks • Hofling used a field experiment which meant the experimenters would not have had full control of all the variables. This in turn implies the nurses' level of obedience may not just have been due to the phone call from the doctor but other factors too/eq; 2 marks E.g. Sherif (1961/1988) • Researcher still had some control over the variables Sherif was able to introduce the element of competition into the study/eq; 1 mark • The participants were unaware they were taking part so could not give their consent/right to withdraw/eq; 1 mark	
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	• It is vulnerable to extraneous variables as the situation is not carefully controlled/eq; 1 mark • The study is high in ecological validity as it is based on a summer camp which is a natural environment and involves activities commonly carried out in these camps/eq; 2 marks • The study is ethnocentric as participants were all 12 years old, and white middle-class American boys, so generalisation to the American population as a whole is not possible/eq; 2 marks • There is less possibility of demand characteristics as the boys were unaware they are taking part and are so less likely to 'act up' /eq; 1 mark E.g. Tajfel (1970) • The researcher has more control over variables than in other settings or with other research methods so high levels of precision can be achieved/eq; 1 mark • If all variables are controlled successfully then cause and effect can be established/eq; 1 mark • Laboratory experiments are replicable as the researcher has control over variables/eq; 1 mark • The experiment suffers from low ecological validity as it is artificial and different from real life situations. Having to allocate points like this is rarely done in everyday life/eq; 2 marks • Demand characteristics may have threatened the validity of the experiment. The boys may try to behave in some way that they perceive as being helpful to the researcher. They may respond to some specific cues made by the researcher such as differences in tone of voice/eq; 2 marks E.g. Reicher and Haslam (2006) • The sample is biased as it consisted of all males and so can't be generalised further/eq; 1 mark • The sample is volunteer so may be biased in that participants tend to be more motivated to perform/eq; 1 mark • They were randomly assigned to the role of prisoner or guard giving each participant an equal chance of being either making it fair/eq; 1 mark • No major interventions were necessary to address ethical concerns after the study, the ethical committee described the conduct of the study as 'exemplary'/eq; 1 mark • Failure of the guards to exert their authority (or the prisoners to	
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	accept it), reflects the fact that the study context was simply too artificial for participants to become engaged in/eq; 1 mark • Participants may fake it for the camera as they know they are being filmed/eq; 1 mark • Participants signed a comprehensive consent form informing them that they may be subject to a series of factors – including physical and psychological discomfort, confinement, constant surveillance and stress –which may involve risk/eq; 2 marks • Because two independent clinical psychologists monitored the study throughout, this enabled the researchers to see any participant at any time or to demand that any participant be removed from the study/eq; 2 marks Look for other reasonable marking points	
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Question Number	Question	
14 (a)	Identify one model or theory of memory.	
	Answer	Mark
	If more than one theory or model mark all and credit the first given answer. 1 mark for identification. Credit for either name or for researcher / theorist. The theory/model must be identifiable and not just general information about memory. • e.g. Multi Store model / Atkinson and Shiffrin (1968) • e.g. Reconstructive memory / Bartlett (1932) • e.g. Levels of Processing / Craik and Lockhart (1972) • e.g. Working memory / Baddeley and Hitch (1974) • e.g. Spreading activation / Collins and Loftus (1975) Look for any other suitable model. Reject cue dependent.	(1 AO1)

Question Number	Question	
14 (b)	Describe the model or theory of memory that you identified in 14 (a).	
	Answer	Mark
	TE: If (a) is blank and (b) correctly describes an appropriate model of memory then (b) can gain up to 4 marks. If (a) is incorrect (e.g. a model of forgetting) and (b) appropriately describes a model of memory that is identifiable then maximum 2 marks can be given. Max 1 mark for an example that enhances understanding. e.g. Multi Store model / Atkinson and Shiffrin (1968) <i>NOTE Max 1 mark for accurate and fully labelled diagram</i>	(4 AO1)

	• Information moves through three systems (SSM STM LTM) under the control of various cognitive processes (attention, rehearsal, etc.)/eq; • The distinctions among the three structures is made on the basis of three characteristics; capacity, duration and encoding/eq; • We receive information from the environment through our senses, which is automatically stored briefly in a sensory register/eq; • Coding and rehearsal determine the fate of this information. Rehearsal is seen as a key process as it not only keeps information in STM, but is also responsible for transferring it to LTM/eq; • Material in the sensory register that is attended to is coded in STM, and information in STM that is sufficiently rehearsed is coded in LTM/eq; e.g. Reconstructive memory / Bartlett (1932) • Memory is more of an imaginative reconstruction of past events influenced by how we encode, store and retrieve information/eq; • Memory is not like a blank video tape but is changed when we recall it/eq; • Our attitudes and responses to events change our memory for those events/eq; • We use schemas that we already have to interpret information and incorporate these into our memory/eq; • Retrieval of stored memories thus involves an active process of reconstruction using a range of information/eq; e.g. Levels of Processing / Craik and Lockhart (1972) <i>If all three processes are not explained or elaborated then 1 list mark only.</i> • Memory is a consequence of how we process information the deeper we process it the easier it will be remembered/eq; • Deep processing which is a form of elaborative rehearsal produces longer lasting memory traces/eq; • The deepest level is semantic processing, and the shallowest is structural processing/eq; • Information that is attended to on the basis of how it looks (structural processing) is not very durable/eq; • Semantic analysis (understanding the meaning) results in deeper processing and deeper processing results in a more durable memory/eq; e.g. Working memory / Baddeley and Hitch (1974) <i>NOTE Max 1 mark for accurate and fully labelled diagram</i> • Working memory is an active store to hold and manipulate	
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	information that is currently being thought about/eq; • It consists of 3 separate components the central executive; phonological loop and visio spatial sketchpad/eq; • The first monitors and co-ordinates the operation of the other two slave systems/eq; • The second consists of two sub systems one which is an inner voice the other which is an inner ear/eq; • The third component is an inner eye which holds visual and spatial information from long term memory/eq; Look for other reasonable marking points	
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Question Number	Question	
15	You are sitting in a lesson and suddenly hear a loud explosion outside. You run to the window with all your classmates and see a large cloud of smoke and people running around. You are questioned the next day by the police about what happened. Using concepts, theories and/or research from the cognitive psychology explain why your later recall of the event might differ from others who saw the same incident.	
	Answer	Mark
	Concepts, theories and research from the cognitive psychology include: Key Issues (e.g. EWT; cognitive interview) Methodology Theories of Memory / Forgetting Results / Conclusions of research e.g. memory and forgetting studies DO NOT CREDIT descriptions of the studies themselves. Terms and concepts can be drawn from (but are not limited to) the terms listed in the specification. More than one mark can be given to an explanation of just one concept. <i>Material in stimulus must be referred to at least once otherwise MAX 3</i> e.g. Cue dependent • Those interviewed in the classroom itself will be aided by cues (context and state) and so may recall more detail than others questioned elsewhere/eq; e.g. Displacement • In a limited capacity short term memory some details of the	(5 AO2)

	event may be displaced by others, causing forgetting of important details for some in the class/eq; e.g. LOP - Those who used deeper processing are likely to remember more than those classmates who used shallow processing/eq; e.g. Multi store - Some students may have thought about and discussed what they saw (rehearsal) so transferred information into LTM and will be more able to recall detail than those who did not transfer information from STM to LTM/eq; e.g. Interference - Students later learning / experiences may interfere with recall of what they saw (retroactive interference) so those who were more 'active' after the event may recall less than those who were more 'inactive'/eq; e.g. Spreading activation - There may be individual differences in recall based on each classmates degree of associations in their semantic memory/eq; e.g. Demand characteristics - When being interviewed some classmates may be more prone to saying things they think the police want to hear in a wish to please them/eq; e.g. EWT - The use (or perception) of leading questions may produce inaccurate memories for some classmates who may underestimate or exaggerate what they saw based on the question/eq; e.g. Use of the cognitive interview - Others may be able to give much more accurate detail if the police use the cognitive interview asking them to recall events from different perspectives or in a different order/eq; e.g. Information processing - There may be individual differences in the way classmates input and process what they see based on schemas which in turn may lead to differences in recall/eq; Look for other reasonable ways of expressing this answer	
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Question Number	
16.	Describe and evaluate one study of obedience from a country other than Milgram's 12 Marks (AO1 + AO2)
	Indicative content
QWC i,ii,iii	Possible studies include: Meuss & Raaijmakers (1986) Slater et al (2006) Kilham & Mann (1971) Reicher & Haslam (2003/2006) There are others Must be a published study <i>NO CREDIT for Hofling or Milgram's original experiment(1963)</i> Refer to banding at the end of the indicative content A01 – These marks are gained by describing the study which must be of obedience from another country other than the USA. A02 – For evaluating the study. NO credit for stating 'it lacked ecological validity'. INDICATIVE CONTENT E.g. Meuss & Raaijmakers (1986) <u>AIMS:</u> • To investigate a number of possible problems which may undermine Milgram's conclusions regarding obedience • To investigate the fact that Milgram's design led to an <i>ambiguous situation</i> which may have <i>led to greater obedience</i> i.e. mixed messages that the shocks were dangerous but not harmful • To see whether more modern psychological-administrative violence creates more /less obedience as compared to Milgram's method <u>PROCEDURE:</u> • 39 participants responded to a newspaper advert and were paid for their time • The research took place in a modern university building where participants were led to believe that they were taking part in a study into stress & performance • Participants believed that the Psychology department had been commissioned to select candidates for a job and each applicant was to take a test which would be administered by the participants • The test was vital to success, if applicants(who were confederates/stooges)failed the test they lost the job

	• Participants were asked to make 15 increasingly distressing remarks to the applicants regarding how they were getting on with the test "If you continue responding like this, you're going to fail the test." • "This job is much too difficult for you, according to this test." • Participants also overheard the experimenter telling the 'applicants' false information about the study (e.g. it would not affect their job chances) • It soon became obvious that the 'applicant' was getting extremely distressed and that they would fail the test (and, therefore, not get the job) • Two thirds of the way through the test the 'applicant' accused the researchers of giving false information and withdrew his consent to continue • If the subjects refused to continue to make the stressful remarks they were prodded to continue by the experimenter • A participant who made all the stress remarks was seen as obedient and those who refused to make all the stress remarks disobedient <u>RESULTS:</u> • 92% of the participants obeyed the experimenter to the end and made all the stress remarks • The participants reported that they 'intensely disliked' making the stress remarks • The participants were convinced that the applicant's test scores had been seriously affected by the stress remarks • 96% of the participants were sure that they were dealing with a 'real' situation <u>CONCLUSIONS:</u> • The researchers conclude that the level of obedience in their study was considerably higher than in Milgram's study • Furthermore, this shows that it is easier "to obey orders to use psychological-administrative violence than to obey orders to use physical violence" <u>EVALUATION:</u> • Many participants were caused distress by their involvement they made it clear that they found the treatment of the applicant to be unfair • Participants intensely disliked making the stress remarks, were relieved that the victim was not a real applicant and they had not in reality caused someone harm • Participants were fully debriefed and given a follow up questionnaire by mail a year later to ensure they were okay • In neither debriefing, however, were any indications seen that the participants had suffered any serious negative effects from their participation in the experiment • Participants were deceived as they thought the study was on stress and performance (not obedience) and that the applicants were real when in fact they were just actors • The volunteer sample may be biased as these participants tend to be more motivated and perform better • The findings can help explain real life atrocities such as genocide
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and the war against Iraq

E.g. Slater et al (2006)

AIMS:

- To study human responses to interaction with a virtual character using similar conflict created by Milgram's study
- To test whether the stress would be greater in a situation where the learner could be seen and heard in comparison to one where she would only communicate with the participant through text

PROCEDURE:

- 34 participants were recruited by posters and email on the campus at University College London, mean age was 29
- 23 were allocated to the Visible Condition (could see and hear virtual learner) and 11 to the Hidden Condition (could not see or hear her answers came through texts)
- Their task was to read out 32 sets of these 5 words to the learner, the first of which was a cue word and the others one of four possible words
- The learner was supposed to have memorised the words with the cue word beforehand
- On 20 out of the 32 trials the Learner gave the wrong answer, the later trials more likely to result in a wrong answer than the earlier ones
- On the desk in front of the participant was an 'electric shock machine' with a shock button, voltage indicators and a knob for turning up the voltage level
- The participant was instructed that each time the learner gave an incorrect answer he or she should press the shock button which and increase this by one unit each time
- In the Visible condition the learner responded to the shocks with increasing signs of discomfort, eventually protesting that she had 'never agreed to this' and wanted to stop
- In the second Hidden condition the learner was not seen or heard apart from a few seconds of introductions at the start of the experiment
- Various physiological indicators (e.g., 'trembling or shaking', 'face becoming hot', 'perspiration') were measured via a questionnaire
- It was administered to participants in both groups before the experiment and then after the experiment

RESULTS:

- High scores on the questionnaire were found to correlate positively with anxiety, heart rate, skin conductance responses, respiration, face temperature, and blood volume
- All participants were aroused (skin conductance analysis), this was associated with stress (ECG analysis)
- The intensity was greater for those in the Visible condition compared with those in the Hidden condition
- Participants became distressed at giving shocks and even showed care for the well being of the learner

	<u>CONCLUSIONS:</u> • This shows that in spite of their knowledge that the situation was artificial the participants responded to the situation as if it were real <u>EVALUATION:</u> • Participants were caused increasing discomfort as witnessed by their physiological responses and later comments during the post-experimental interviews • Several participants withdrew from the experiment before the end due to simulator sickness • Some minimal cues from the learner may have been sufficient to cause a stress response in participants as seen in the pilot study • Virtual environments can provide a useful tool in psychology by providing an alternative methodology for laboratory based studies • This method could also be used beyond simple obedience studies and look at reasons for bystander behaviour in street violence (useful given the current level of perceived crime) • Unlike the Milgram experiments there was no need for deception here as all participants were made fully aware of the virtual learner
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Level	Mark	Descriptor
		A01: Knowledge and understanding of one study A02: Application/evaluation of knowledge and understanding of one study Descriptors indicate possible ways in which candidates will have responded.
	0	No rewardable material
Level 1	1-3 marks	Candidates will produce brief answers, making simple statements showing some relevance to the question. • Outline includes one of APRC • Little or no attempt at the analytical/evaluation demands of the question. Lack of relevant evidence. The skills needed to produce effective writing will not normally be present. The writing may have some coherence and will be generally comprehensible, but lack both clarity and organisation. High incidence of syntactical and /or spelling errors.
Level 2	4-6 marks	Description OR evaluation only OR limited attempt at each OR one is in less detail than the other • Description includes procedure and one of ARC. • Evaluation attempted though general OR limited and related to actual study Candidates will produce statements with some development in the form of mostly accurate and relevant factual material. There are likely to be passages which lack clarity and proper organisation. Frequent syntactical and /or spelling errors are likely to be present.
Level 3	7-9 marks	Candidate has attempted and answered <i>both of the two injunctions</i> in the question well. • Description includes procedure and any two of ARC. • Evaluation includes appropriate strengths/weaknesses in relation to actual study The candidate will demonstrate most of the skills needed to produce effective extended writing but there will be lapses in organisation. Some syntactical and /or spelling errors are likely to be present.
Level 4	10-12 marks	Candidate has attempted and answered <i>both of the two injunctions</i> in the question very well. • Description includes APRC. • Evaluation includes appropriate strengths/weaknesses in reasonable detail and in relation to the study The skills needed to produce convincing extended writing are in place. Very few syntactical and /or spelling errors may be found. Very good organisation and planning. Given time constraints and limited number of marks, full marks must be given when the answer is reasonably detailed even if not all the information is present.