



SIXTH FORM INDUCTION WEEK
Monday 2nd – Thursday 5th July 2018
SUMMER TASK - PSYCHOLOGY

Getting ready to study Psychology:

1.	Read the study by Loftus and Palmer. Underline psychology key words and look up what they mean. Get yourself a small exercise book and start to make a glossary.
2.	Make detailed notes on the study.
3.	Read the study by Grant. Underline psychology key words and add them to your glossary.
4.	Make detailed notes on the study
5.	Make a list of similarities and differences between the Loftus and Palmer and Grant study
6.	<i>Write a short essay (Max 300 words) with the title 'Nature or Nurture – Which do you think is more important in determining who you are today?'</i>

SUBMISSION DATE – THURSDAY 6TH SEPTEMBER 2018

Loftus and Palmer (1974)

AIMS: To test their hypothesis that eyewitness testimony (EWT) is fragile and can easily be distorted. Loftus and Palmer aimed to show that leading questions could distort EWT accounts via the cues provided in the question. To test this hypothesis, Loftus and Palmer asked people to estimate the speed of motor vehicles using different forms of questions after they had observed a car accident. The estimation of vehicle speed is something people are generally quite poor at and so, therefore, they may be more open to suggestion by leading questions.

PROCEDURES: Forty-five American students formed an opportunity sample. This was a laboratory experiment with five conditions, only one of which was experienced by each participant (an independent measures design). Participants were shown a brief film depicting a car accident involving a number of cars. They were then asked to describe what had happened as if they were eyewitnesses. After they had watched the film, the participants were asked specific questions, including the question "About how fast were the cars going when they (hit/smashed/collided/bumped/contacted-the five conditions) each other?" Thus, the independent variable was the wording of the question and the dependent variable was the speed reported by the participants. A week after the participants were shown the film of the car accident they were asked, "Did you see any broken glass?" In fact, no broken glass was shown in the film.

FINDINGS: Loftus and Palmer found that estimated speed was influenced by the verb used. The verb implied information about the speed, which systematically affected the participants' memory of the accident. Those who were asked the question where the verb used was "smashed" thought the cars were going faster than those who were asked the question with "hit" as the verb. The mean estimate when "smashed" was used was 41mph, versus 34mph when "hit" was used. Thus, participants in the "smashed" condition reported the highest speeds, followed by "collided", "bumped", "hit", and "contacted" in descending order. In answering the follow-up question, a higher percentage of participants who heard "smashed" said that they had seen broken glass (32%) than those who heard "hit" (14%).

CONCLUSIONS: The questions asked can be termed "leading" questions because they affected the participants' memory of the event. The answer to a leading question is implicit in the question-that is, the question contains information about what the answer should be. Thus, language can have a distorting effect on EWT, which can lead to confabulated (inaccurate) accounts of the witnessed event. It is possible that the original memory had been reconstructed. However, it is also possible that the original memory may have been replaced or experienced interference. This has important implications for the questions used in police interviews of eyewitnesses.

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- The research lacks mundane realism, as what the observers saw in the laboratory would not have had the same emotional impact as witnessing a real-life accident. It also differs from real life, in that the participants knew that something interesting was going to be shown to them, and were paying full attention to it. In real life, eyewitnesses are typically taken by surprise and often fail to pay close attention to the event or incident.

- This research by Loftus and Palmer is important in showing that the memories of eyewitnesses can easily be distorted. However, the main distortion produced in this study was for a relatively unimportant piece of information (i.e. presence vs. absence of broken glass). It has proved harder to produce distortions for information of central importance (e.g. the weapon used by a criminal).
- The participants witnessed a brief film, which may have contained much less information than would be available when observing an incident or crime in real life.

Delineate two factors that influence the reliability of eyewitness testimony.

1. Reconstructive memory influences the reliability of eyewitness testimony (EWT) because it suggests that what is recalled is not an accurate reproduction of the original material, because our recall is distorted by schemas, which have been used to fill in the gaps in our memory. Reconstruction is an active process in which information from the to-be-remembered material and information from our knowledge and experience of the world are combined. Information based on our knowledge and experience of the world is contained in schemas, which are packets of knowledge. Thus, reconstructive memory decreases the reliability of EWT, as the combining of information and the consequent distortions would affect the reliability (consistency) of memory.
2. Leading questions can affect the reliability of EWT because: they suggest the answer in the question, the language used can encourage the process of reconstruction, and the questions may be a source of post-event information. Loftus and Zanni (1975) found that the definite article "the" was more leading than the indefinite article "a" as only 7% of those asked about a broken headlight said they had seen it, compared to 17% of those asked about the broken headlight, when in fact there was no broken headlight in the film.

This shows that a leading question can provide post-event information and the language used can encourage reconstruction. The use of "the" suggests that there was broken glass, even though there wasn't, and so demonstrates the effect of both language ("the") and inferred post-event information (broken glass). Thus, leading questions can have a distorting effect on EWT, which can lead to confabulated (inaccurate) accounts of the witnessed event.

It is possible that the original memory had been reconstructed. However, it is also possible that the original memory may have been replaced or experienced interference. This has important implications for the questions used in police interviews of eyewitnesses. Loftus and Zanni's research showed that a leading question can provide post-event information and that the language used can encourage reconstruction. This suggests that leading questions reduce the reliability of EWT, as it becomes confabulated (memories are blended).

Grant

Context-dependent memory refers to improved recall of specific episodes or information when the context present at encoding and retrieval are the same. Context-dependency effects for memory recall are typically interpreted as showing that the characteristics of the environment are encoded as part of the memory trace and can be used to enhance retrieval of other information in the trace (Eich, 1980; Smith, 1988).

Continued Page 4

A number of factors are thought to affect how contextual information interacts with memory recall. An analysis of the literature on environmental context-dependency memory by Smith and Vela (2001) suggests that in cases where contextual information is not particularly salient, context-dependent effects on memory are reduced. Johnson et al's (1993) Source Monitoring Framework proposes that the ability of an individual to remember the source of an episode will affect the likelihood of that memory being recalled. Hence, in the case of context-dependent memory, this framework suggests that the effects of context on memory may also be limited by cognitive factors such as the ability of individuals to differentiate between individual contexts. Context effects differ when it comes to what sort of task is being performed. Research by Godden and Baddeley (1975, 1980) showed the effects of context change on memory retrieval are much greater in recall tests than in recognition tests, suggesting there are differences in the retrieval process involved in the two types of tests.

Research has shown that context-dependence may play an important role in numerous situations, such as memory for studied material.

Grant et al were interested in determining whether environmental context-dependency effects would be found with the type of material and the type of tests typically encountered in school.

Their focus is more on study conditions than on differences in classroom testing conditions because they hold that students have more control over their study environments than over their test environments.

Observations had shown them that many high school and college students study material in environments very different from those in which they are tested: study environments often include background noise from either family, friends or television, while test environments are typically quieter. Therefore, if context-dependency occurs with meaningful course material, students' study habits could be harming their test performance.

Grant et al therefore aimed to show that environmental context can have a more positive effect on performance in a meaningful memory test when the test takes place in the same environment in which the to-be-remembered material was originally studied (the matching condition) than when the test occurs in a different environment (mismatching condition).

Eight members of a psychology laboratory class served as experimenters. Each experimenter recruited five acquaintances to serve as participants.

There were 39 participants, ranging in age from 17 to 56 years ($M = 23.4$, $SD = 5.9$), 17 were female, 23 were male. (1 participant's results were omitted from the analyses.)

Each experimenter ran one participant for each of the four conditions and an additional participant for one of the conditions as assigned by the instructor. Experimenters randomly assigned their participants to their five conditions.

- Stimuli

- (a) Each experimenter provided his/her own cassette player and headphones.

- The eight cassettes were exact copies made from a master tape of background noise recorded during lunchtime in a university cafeteria. The background noise consisted of occasional distinct words/phrases embedded within a general conversational hum that was intermixed with the sounds produced by movement of chairs and dishes. The tape was played at a moderately loud level.

- (b) A two-page, three-columned article on psychoimmunology (Hales, 1984) was selected as the to-be-studied material.

- (c) 16 multiple-choice questions, each consisting of a stem and four alternatives were generated, all of which tested memory for points stated in the text. 10 short-answer questions were derived from those multiple-choice stems that could easily be restated to produce a question that could be answered unambiguously by a single word or phrase. The order of the questions on each test followed the order in which the tested points were made in the text. The short-answer test was always administered first to ensure that recall of information from the article was being tested and not recall of information from the multiple-choice test.

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Procedure - Instructions, describing the experiment as a class project and stating that participation was voluntary, were read aloud. - Participants were asked to read the given article once, as if they were reading it for a class assignment. They were allowed to highlight and underline as they read. - Participants were informed that their comprehension would be tested with both a short-answer test and a multiple-choice test. - All participants wore headphones while they read. Those in the silent condition were told they would not hear anything over the headphones whilst those in the noisy condition were told they would hear moderately loud background noise, but that they should ignore it. - Reading times were recorded by the experimenters. - A break of approximately two minutes between the end of the study phase and the beginning of the test phase was incorporated to minimise recall from short-term memory. - The short-answer test was given, followed by the multiple-choice test. - Participants were tested in either silent or noisy conditions and were informed of the condition before testing. Regardless of testing condition, all participants wore headphones. - At the end of the testing phase participants were debriefed concerning the purpose of the experiment. - The entire procedure lasted about 30 minutes.

NB The data from one participant in the silent study/silent test condition were omitted from the analysis because his performance was over 2.5 standard deviation below the combined group mean on each test. Therefore although 40 people took part, only 39 results were analysed.

Mean reading time (in minutes) and mean number correct on the two tests as a function of study condition and test condition

Results suggest participants in all groups spent roughly equal amounts of time studying the material.

Therefore reading time was used as a co-variable in the analysis of test performance.

There was a reliable Study Condition \times Test Condition interaction for both the short-answer test and the multiple-choice test. A planned contrast comparing performance in the matching conditions (silent study/silent test and noisy study/noisy test) to performance in the mismatching conditions (silent study/noisy

test and noisy study/silent test) was reliable

($F(1,34) = 6.79$) showing that studying and testing in the same environment produced better results.

There was no overall effect of noise on performance.

There are context-dependency effects for newly learned meaningful material regardless of whether a short-answer test or a multiple-choice test is used to assess learning.

Studying and testing in the same environment leads to enhanced performance.

Students are likely to perform better in exams if they study for them with a minimum of background noise because, although there was no overall effect of noise on performance, the fact that there was evidence for context-dependency suggests they are better off studying without background noise as it will not be present during actual testing.

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