

Introduction

Outline

Reconstructive memory is when information is recalled based on stereotypes, schemas and ridiculous expectations.

Background research

The theory i am testing is reconstructive memory, leading questions can be used to effect how memory is recalled by triggering schemas. Loftus and Palmer's study (1974) shows that leading questions influence a person's answer. They tested 45 participants who were all shown the same video clip of two cars crashing into each other. Then they were split into groups and each asked 'what speed were the cars going when they _____ into each other?' but changing the verb each time (smashed/collided/contacted/hit/bumped) this was the IV. The DV was the estimate of speed recalled. The results showed that participants asked the questions with 'smashed' or 'hit' gave a higher speed than participant's asked questions with 'bumped' or 'contacted' in them. Because the verb used gave an implication of the speed the cars were moving at. They were then called back a week later and asked if there was any broken glass in the accident, the participants that were asked questions including smashed or hit said yes, despite there being no broken glass in the accident. This is because it implied the cars were travelling quite fast when the crash occurred and so the participants assumed that there was broken glass.

Harris (1973) did a simpler study on ability to recall accurate measurements of height. The participants were asked either "how short/tall were the basketball players?" When shown a photograph of a person the participants that were asked "how tall...?" gave an answer on average of 79" and the participants that were asked "how short...?" gave an answer on average of 69". This study showed that wording a question differently may affect the measurement recalled, as changing one word in the sentence can produce different implications

Rationale

This study is a partial replication of Harris (1973). This was a study in the accuracy of guessing measurements. Harris told the participants to make as accurate a numerical estimate as possible after watching a video clip of basketball players. However basketball players are traditionally tall and so participants would not give a free range of estimates. For our study...players are tall. We expect to find that leading questions affect whether the participant gives a shorter, or taller estimate in relation to the question asked

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Aim

This study aims to test whether leading questions will affect the participant's answer as stated is Harris' study (1973)

Hypothesis

The hypothesis is that differently worded questions will manipulate the participant's answer. Such as 'how short/tall was the person?' by possibly influencing their memory. Participants asked "how tall..." will give a higher estimate of height in inches than participants asked "how short...".

Method

Method and Design

This was a lab experiment; with an independent measures design. We wanted to use the same photo to maintain control, so we could only show the participants the photograph once.

Variables

The independent variable in this experiment is the leading question asked. This was operationalised by changing one adjective in the question, such as 'tall' or 'short'. The dependent variable was the height estimate in inches.

Participants

6 participants took part in our study; 3 males and 3 females. These participants were selected by opportunity from around college. This method was chosen because the target population is large and so random sampling would be impossible.

Apparatus

In our study the materials used were-

The internet to find a photograph, and the photograph itself (appendix 3). This was chosen as there were no clues to height of the person.

Procedure

First we found a picture on the internet to show the participants, write the questions and find the participants according to our group roles (appendix 1). The participants were randomly selected from areas around college. We selected 3 females and 3 males, they were all between the ages of 16-18. We read them the introduction to inform and debrief (appendix 2) then showed them the photograph (appendix 3). We showed the participants the photograph for 10 seconds and then asked them one of two questions (appendix 4) we alternated between the two conditions. The raw data was recorded in a table (appendix 5), we then worked out averages from the raw data in order to be able to compare the data more effectively.

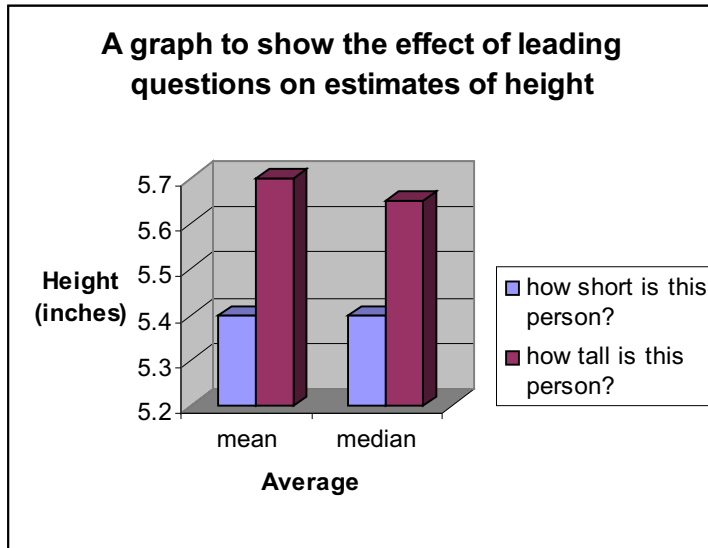
Results

The Effect of Leading Questions on Influencing an Estimate of Height

Averages	Participants asked “how tall is this person?” (category 1) (inches)	Participants asked “how short is this person?” (category 2) (feet and inches)
Mean Average	64	67
Median	64	66
Range	3	7

It is clear from the results that participants that the mean average of the estimates given by the participants that were asked “how tall” the person in the picture was, are higher than the estimates given by the participants that were asked “how short” the person in the picture was. The estimate given by the participants asked “how tall” the person was was on average 5.26% higher than the participants asked “how short” the person was.

The range of the participants in category 1 is 3 inches whereas the range of the participants in category 2 is 7 inches. This shows that the question ‘how tall is this person?’ was more effective in influencing the participants answer than the question ‘how short is this person?’



It is clear from the graph that participants asked “how short is this person?” (Category 1) on average gave a smaller estimate than the people asked “how tall is this person?” (Category 2). The participants in category 1 gave a mean average answer of 5,4 and median answer of 5,4. Whereas the participants in category 2, gave a mean average answer of 5,7 and a median answer of 5,6.5. Showing that, the leading questions were successful in that changing one adjective in the question influenced the participant’s answer.

The average answer given for participants in category one was 5,4 for both mean and median. This could suggest evidence of schemas, as the participants, when asked “how short is this person?” may have a stereotyped an automatic estimate of height for someone who is short. This is also true with participants in category 2 as the mean and median averages were only 0.5 inches apart from each other.

The results support my hypothesis that changing one adjective in the question would influence the participant’s answer. That the participants asked how short the person was gave a shorter estimate than the participants that were asked how tall the person was. The average estimate for participants in category 2 was 5.26% higher than the participants in category 1. The results fully support my hypothesis as the differences between the 2 categories are great enough to provide sufficient strong evidence to fully support my hypothesis.

Discussion

Reliability and improvements

One reliability issue with this study is conferring between the participants. This could affect the results as the participants would know what the study involved and possibly guess the results it was aiming to achieve. This could cause demand characteristics in the participants and affect the reliability of our results. One way we could improve this, is experiment on the participants individually so that they cannot confer with one another.

Another reliability issue is that one of the participants was a psychology student; this meant that they already knew about the study and this would influence demand characteristics. This could be improved by not picking participants that are psychology students.

Validity and improvements

This study lacks ecological validity because the way in which we asked the participants the questions may have seemed confrontational; this could have produced demand characteristics in the participants, giving our results less ecological validity. If we had asked the questions in a more casual way then the participants would have felt more relaxed and less inclined to answer in a way they thought would provide the results our research was aiming to achieve.

Implications

The study our researched was a partial replication of was Harris (1973). Harris asked participants either “how short” or “how tall”. The participants asked how short the basketball players were gave an average answer of 69 inches, in our study the average answer for this question was 64. The participant’s that Harris asked “how tall were the basketball players?” gave an average answer of 79 inches, in our study the average answer was 67 inches. Our results support Harris’ results as the average for participants asked how tall someone was is higher than the average answer of the participants that were asked how short someone was. However our results do not have as significant a difference between the two conditions as Harris’ results did and so they do not give as strong evidence as Harris’ results to support the theory of leading questions influencing a participant’s answer.

Generalisation

In our study we used 3 participants for each condition, our target population was everybody so this sample does not adequately represent the target population, as it is not a big enough sample and so it cannot be generalised. Also all of our participants were around the same age as we used participants from college, and so this sample is only a representation of 3 people between the ages of 16 and 17, rather than people of all different ages which would produce a wider range of participants and make the results more representative of our target population. Also, all the participants that we asked how short the person in the photo was were female and all the participants we asked how tall the person in the photo was were male, so this is not representative of what most people’s answers would be regardless of age or gender.

Application

Our study could be used in eye witness testimony and police interviews. It shows positive evidence of the effect of leading questions and can help make police more aware of this; so they would use fewer leading questions in police interviews. It can also be used to the same effect in court to make the court process more efficient. If the people giving evidence were influenced by leading questions, the jury is basing their decision on inaccurate evidence. By using fewer leading questions the court process would be fairer, as evidence would be clear and more accurate.

References

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<http://www.holah.karoo.net/gardnerstudy.htm>

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