

CLOA possible questions (SAQ+ERO)

Cognition and tech

Discuss the influence of digital technology on one or more cognitive processes.

Transactive memory system is a mechanism through which groups collectively encode, store and retrieve knowledge. They also include knowledge of where the information can be found and how to access it.

- Basically means that we remember less because we count on others to remember for us and or count on having the source at our disposition so no need to remember

Technology influences your brain in a new way, yet it is merely an extension of our environment.

Studies: Sparrow, Storm

<https://quizlet.com/gb/564605787/sparrow-et-al-flash-cards/>

<https://quizlet.com/cn/392148739/storm-et-al-2016-flash-cards/>

Discuss positive and/or negative effects of modern technology on cognitive processes.

Chou et edge (perception of oneself) and Bavelier et al

<https://quizlet.com/de/578222009/bavelier-et-al-flash-cards/>

<https://quizlet.com/de/580267949/chou-and-edge-flash-cards/>

Critical thinking: the difficulties of determining cause and effect relationships; operationalization of variables; researcher bias.

Discuss methods used to study the interaction between digital technology and cognitive processes.

Terms/theories: Remember that the research methods are: case studies, experiments, observations, interviews and questionnaires/surveys.

Critical thinking: You should be able to discuss the strengths and limitations of each of the methods. This should include the question of cause and effect, ecological validity, replicability, internal validity, uses of controls and potential ethical considerations.

Different command terms: Evaluate, contrast

Studies: Chou et edge (survey), Sparrow et al (experiment)

Discuss the role of digital technology on emotion and cognition.

Terms/theories: Flashbulb memory, reception context,

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episodic buffer holds and coordinates information from the three other stores and LTM. In the working memory model, each sub-system has a role that contributes to the concept of STM as a whole, while STM in the multi-store model is a single, unitary system.

The multi-store model and the working memory model have a number of similarities and differences, but together, the models together have deepened the understanding of how memory works and have increased the understanding of the complexity of memory in human cognition. Both models agree on fundamental concepts of memory, but disagree on values and attributes in regard to specific aspects of models.

Discuss schema theory.

Schema theory is based on the idea that we are active processors of information and that our behaviour and cognitive processes can be influenced by our schema.

Schemas are mental representations derived from prior experience and knowledge that helps us understand the world we live in.

Schemas helps us organize knowledge and information. Since we are cognitive misers, we use schema to simplify the world and predict things with this mental framework based on what we have seen in the past.

Schemas are formed through a process known as assimilation where we encounter something incongruent with our current schema we can add this to our schema so that we will be prepared in the future with this situation. However, since we are information processor, we often only notice that that is congruent with our schema, so we often see and remember what we expect to see. Schemas can affect behaviour in a variety of ways – one of which is the distortion of memories.

Limitations to schema theory:

1. It is not yet entirely clear how schemas are acquired in the first place or the exact way they influence cognitive processes.
2. It cannot account for why schema-inconsistent information is sometimes recalled.

Studies: Brewer and Treyens and Loftus and Palmer

Study: Brewer and Treyens

Brewer & Treyens carried out a classic study of the role of schema in memory. You can use this study for the following topics:

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thinking when we are doing something - so being asked what we were thinking may result in demand characteristics.

Englisch and Mussweiler

To test their hypothesis that the recommended sentence proposed by a prosecutor would unduly influence a judge's decision, the researchers used an independent samples design. This allowed the researchers to use the same case study for both conditions – the high anchor and the low anchor.

In order to control for the level of courtroom experience, the sample was made up of 19 young trial judges (15 male and 4 female) – with an average age of 29.37 and with an average of 9.34 months of experience.

The participants were given a case of alleged rape. The prosecutor in one condition demanded a sentence of 2 months vs. 34 months.

To develop the case materials, advice was sought from highly experienced trial judges. Then the case materials were tested on a group of 24 senior law students – this served as a **pilot study**. The average recommended prison term suggested by the law students was 17.21 months. This was then used as a basis for determining the anchors.

Participants were given the case materials along with copies of the penal code. They were asked to read through the materials and form an opinion about the case. After they had formed an opinion about the case (about 15 minutes), they were given a questionnaire. Half of the participants were told that the prosecutor demanded a 34-month sentence; while the other half were told that he demanded a 2-month sentence.

They were then asked the following questions:

- Do you think that the sentence was too low, adequate or too high?
- What sentence would you recommend?
- How certain are you about your sentencing decision? (a scale of 1 – 9)
- How realistic do you think this case is? (a scale of 1 – 9)

The average rating for the realistic nature of the case was 7.17, with a standard deviation of 1.3. The judges' certainty about their responses, however, were not as strong, with an average rating of 4.53 and a standard deviation of 2.29.

When presented with a low anchor of two months, the average sentence was 18.78 months, with a standard deviation of 9.11. in the high anchor condition of 34 months, the average sentence was 28.70 months, with a standard deviation of 6.53.

Evaluation

The study was a true experiment, allowing the researchers to infer a cause and effect relationship between the value of the anchor and the sentence.

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The researchers found that 90% of the participants recalled a significant amount of detail about the day when these events occurred. Most participants had very detailed memories of the death of a loved one. However, there was a difference in their memories of the assassination of public officials, based on the personal relevance of the event to the participant. 75% of black participants had flashbulb memories of the murder of Martin Luther King, compared to 33% of white participants.

Evaluation

The study was one of the first to attempt to empirically test the existence of flashbulb memories. It has led to a large amount of further research.

The study is an interview/questionnaire, which means that it cannot establish a cause and effect relationship between in-group identity (white vs African American) and flashbulb memories.

The procedure could be replicated, allowing us to determine if the results are **reliable**.

The questionnaire was **retrospective** in nature - that is, it was self-reported data that relied on the memory of the individual and could not be verified for accuracy by the researchers. Compare this to Neisser & Harsch's prospective study.

The actual level of surprise or emotion at the moment of the historical event cannot be measured or verified.

It is not possible to actually measure the role of rehearsal in the creation of the memories.

When people are questioned about an important national event, they may say what they believe that they are supposed to say - a demand characteristic known as the **social desirability effect**.

The study shows **sampling bias**; it is difficult to generalize the findings as only American males were studied. The study had both gender and cultural bias. More recent findings show that collectivistic societies may have lower rates of FBM.

McGaugh and Cahill - I already know

Critical thinking: There are cultural differences in flashbulb memory; it is important that memories can be verified - it may be that the strongest memory is the emotion, rather than the details; research is inconclusive; there is some biological evidence for highly emotional memories being processed differently in the brain.

Discuss ethical considerations in the study of the reliability of cognitive processes.

Critical thinking: the balance between informed consent and controlling for demand characteristics; the question of "psychological harm" in cognitive research; the importance of debriefing when using deception.

Studies: Loftus and Pickrell (deceit) and