

PSYC1230 - Core questions

Lecture 1: Introduction to cognitive psychology

- Define the concept “mental representation” and how does it relate to cognitive psychology? (Gilhooly, p. 4/5, also p. 14/15)
- Why is “double dissociation” an important aspect of neuropsychology? (Gilhooly, p. 23)
- Discuss the main aspects of behaviourism. (Gilhooly, p. 11-14)
- What are the central elements of the so-called “cognitive revolution” (Gilhooly, p.14/15)

Lecture 2: Attention

- What is “change blindness”? What are communalities with and differences to “inattention blindness”? (Gilhooly, p.143-146; Groome, p. 28-31)
- Discuss Lavie’s load-theory experiment (slide 25/26; see also Gilhooly, p. 121). Can the results of the Simons & Chabris “Gorilla” experiment be explained based on Lavie’s theory (use data on slide 10)?
- How would a person behave which only has endogenous control of attention? How would a person behave which only has exogenous control of attention? (definition of terms: slide 50, Groome, p. 25-28)
- According to the Feature Integration Theory (FIT) by Anne Treisman (Gilhooly, p. 128/129), how would you design an object you would like to hide?

Lecture 3: Sensory, short-term, and working memory

- What is the difference between short-term and working memory? (Gilhooly, p. 187ff/194ff)
- How do the 4 phenomena listed on slide 39 support Alan Baddeley’s idea that the phonological loop is based on subvocal rehearsal? (see also Gilhooly, p. 199ff)
- Discuss the word-length effect in relation to George A. Miller’s “magical number seven”. Do these two phenomena contradict each other? (hint on slide 33)
- Discuss the relationship between attention and working memory (e.g., based on Cowan’s embedded processes working memory model). (Gilhooly, p. 195ff)

Lecture 4: Learning by conditioning

- Hvordan sprang klassisk betinging ut av Pavlovs forskning? (Stangor & Walinga, kapittel 8.1)
- Beskriv prosessen bak klassisk betinging i laboratoriet, men også hvordan prosessen kunne tenkes å forekomme i det virkelige liv. (Stangor & Walinga, kapittel 8.1)
- Operant betinging: Hva mener vi med forsterkning når vi snakker om operant betinging? (Stangor & Walinga, kapittel 8.2)
- Hva er forsterkningskjemaer (reinforcement schedules) og hvilke effekter kan de ha? (Stangor & Walinga, kapittel 8.2)

Lecture 5: Emosjon og kognisjon

- Hva er emosjoner? (Gilhooly et al. [2. utg.], s. 550 ff.)
- Hva gjør emosjoner? (Gilhooly et al., [2. utg.], s. 550 ff. Box 15.1, Box 15.7 og s. 582.)

Kommentar til spørsmål 1 og 2 (fra foreleser): Hva emosjoner er og hva de gjør, er to spørsmål som henger nøye sammen. Det er ikke alltid lett å skille skarpt mellom dem, og heller ikke viktig. Men sammen kan de to spørsmålene hjelpe oss å forstå emosjonenes funksjon.

- Hva menes med “appraisal” i vår sammenheng? (Gilhooly et al., [2. utg.], s. 567-568.)
- Kognitiv adferdsterapi brukes i behandling av depresjon. Si litt om hvordan. (Gilhooly et al., [2. utg.], Box 15.5.)

Lecture 6: Long-term memory systems

- Discuss the structure of long-term memory and find own examples for each memory type (see e.g., Gilhooly, p. 226ff)
- Consider a patient with amnesic syndrome, like Clive Wearing. Discuss which memory functions are intact and which are not. How would you test these functions in an interview with the patient? (see Gilhooly, p. 223ff)
- Would an amnesic patient be able to acquire the ability to play a piece of music he/she did not know from before the brain lesion? (see Box 7.1 in Gilhooly for hints)
- Discuss the statement: “Memory is a reconstructive process”. Does the “Misinformation effect” support this statement? (Groome, p. 164-167)

Lecture 7: Memory encoding, retrieval, and forgetting

- Discuss the statement “remembering is cue-dependent” (Groome, p.138-141).
- Related to the previous question, what is the difference between permanent and temporary forgetting?
- Use two of the empirical phenomena discussed in Lecture segment 2 to design a strategy for memorizing an item list.
- Discuss the findings by Shaw et al. (eyewitness experiment, Lecture Segment 4) as phenomenon of retrieval-induced forgetting (RIF). How can RIF “make” you forget a password?

Lecture 8: Falske minner og vitnepsykologi

Foreleser har bare lagt ut 3 til denne forelesningen, det mangler ikke et spm (red.anm.).

- Drøft påstanden: «Menneskehjernen fungerer på en måte som gjør oss uegnet som vitner i en rettssak» opp mot påstanden: «Hvis forholdene ligger til rette for det, er menneskers hukommelse til å stole på».

- Hva er «misinformation effect», eller «feilinformasjonseffekten»? Finn eksempler fra laboratorieeksperimenter og fra det virkelige liv (enten eksempler fra boka, forelesning, saker i media eller eget liv).
- Beskriv en situasjon som gir høy risiko for dannelsen av falske minner.

Lecture 9: Beslutningstaking

- På hvilke systematiske måter avviker beslutningstakere fra EU (Expected Utility)-teorien.
- Drøft noen fenomener som kan forklares ut fra «tapsaversjon» (loss aversion), som er en sentral idé i prospektteorien (prospect theory).
- Drøft likheter og forskjeller mellom «heuristic & biases»-tradisjonen og «fast & frugal»-tradisjonen.
- Drøft fordeler og ulemper ved utilitarisme som grunnlag av moralske avgjørelser.

Lecture 10: Resonnering

- Hvilke vanlige feil begår personer når de resonnerer med deduksjon, induksjon og abduksjon?
- Hva forteller oss Wason's seleksjonsoppgave (Four-Card Selection Task i Gilhooly et al. boken)?
- Prøv å finne hverdagsfenomener som kunne forklares ved hjelp av bekreftelsesfeilen.
- Hvordan kunne man øke evner til logisk resonnering hos mennesker?

Lecture 11: Language production

- "Language alters the nature of thought itself." From the textbook, present one argument for and one argument against the perspective (Gilhooly, pg. 328 - 329). Come up with your own suggestion of another factor that may alter both language and thought.
- Analyze the sentences made by Genie (pg. 326) and identify how the following lexical categories of language are altered: morphemes, semantics and the lexicon, and Syntax (pg. 336 - 342). What could this reflect about her internal thought process?
- What are differences between serial and interactive models of speech production (pg. 351 - 356).
- Describe the nature of Broca's aphasia (pg. 365-366). What challenges do novel investigations into patient Leborgne's brain present for the explanatory power of double dissociation (pg. 23)?

Lecture 12: Language comprehension

- Define the segmentation problem and indicate what cues infants use to segment incoming speech (Gilhooly 2nd ed pg. 377-381).
- Find the vowel space for French and Norwegian (this can be found by searching "LANGUAGE NAME phonology" on google). Using the vowel space, identify one vowel

in each language that may be challenging for a native monolingual speaker of the other language to perceive. Why might this be the case (Hint on: pg. 383-384)?

- What does the McGurk effect illustrate about the relationship between language and other cognitive processes (pg. 390)? How could this play a role in the difficulty people have with understanding sounds in a new language?
- Describe the Dual Route Reading model and indicate which of the routes will be used preferentially while reading texts in Norwegian and in English (pg. 415 - 416).