



GÖTEBORGS UNIVERSITET

STUDENT

0001-BFA

TENTAMEN

TIG001 Kognitiv psykologi

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i Welcome to the exam of Cognitive Psychology (TIG001)!

The exam consists of 50 multiple choice questions. There is only one correct answer per question. Correct answers get a '1' mark, incorrect or non-answers get a '0' mark.

In order to pass the exam, you need to answer 50% of the questions correctly, meaning that you need to answer 25 out of 50 questions correctly.


In order to pass the exam with distinction, you need to answer 70% of the questions correctly, meaning that you need to answer 35 out of 50 questions correctly.

The exam is in English, a Swedish-English/English-Swedish dictionary is allowed to be used during the exam.

Good luck!

1 People are influenced by perceptual illusions

Select one alternative:

- ☐ the first time they see them, but after the first time they are no longer influenced by them.
- ☐ if they are under the age of 12.
- ☐ when they suffer from blind sight.
- ☒ because they are unable to resist automatic and unconscious inferences. 

Rätt. 1 av 1 poäng.

- 2 Many of us overestimate our own popularity. This could be because we surround ourselves with people who like us, rather than with people who do not. Therefore, it is easier for us to think of the names of people who like us than it is to think of the names of our enemies. This overestimation of popularity seems to derive from using

Select one alternative:

☒ the representativeness heuristic.



☐ the affect heuristic.

☐ the effort heuristic.

☐ the availability heuristic.



Fel. 0 av 1 poäng.

- 3 In an experiment, participants learned materials in Room A and were tested in Room B. If they were asked to think about Room A just before taking the test, participants

Select one alternative:

☒ performed as well as they would have had there been no room change.



☐ performed worse on the test due to dual-task memory disruption.


☐ performed the same as those participants who were not asked to think about Room A.

☐ performed worse on the test because this distracting instruction interfered with memory rehearsal.

Rätt. 1 av 1 poäng.

4 Priming based on specific expectations about the identity of the upcoming stimulus results in


Select one alternative:

- ☒ a faster response time if the expectations are correct but slower response time if the expectations are incorrect. 
- ☐ a faster response time if the expectations are correct but no effect on response time if the expectations are incorrect.
- ☐ no effect on response time if the expectations are correct but slower response times if the expectations are incorrect.
- ☐ engagement of the same processing streams as stimulus-based priming.

Rätt. 1 av 1 poäng.

5 A participant who has just participated in an experiment involving dichotic listening is LEAST likely to remember



Select one alternative:

- ☐ whether the unattended channel contained music or speech.
- ☐ how loud the signal of the attended channel was.
- ☒ the meaning of the words presented on the unattended channel. 
- ☐ whether input in the unattended channel was spoken by a male or a female.

Rätt. 1 av 1 poäng.

- 6 Categorization is influenced by resemblance, but it is also influenced by factors other than resemblance. Which of the following is evidence for the importance of these other factors?


Select one alternative:

- ☐ Resemblance is typically determined by relatively superficial perceptual features, but sometimes categorization depends on deeper essential properties of the category.
- ☒ Many categories have a hierarchical structure. 
- ☐ Resemblance plays a key role in the use of prototypes but plays no role in the well-documented use of exemplars. 
- ☐ Learning about new categories often happens automatically, even when the learner does not notice that it is happening.

Fel. 0 av 1 poäng.

- 7 A number of techniques have been developed that allow us to examine the activation and the structures of specific brain areas. These techniques are called


Select one alternative:

- ☐ chronometric techniques.
- ☒ neuroimaging techniques. 
- ☐ fMRI.
- ☐ psychometric assessment.

Rätt. 1 av 1 poäng.

- 8 Modern psychology turned away from behaviorism in its classic form for many reasons, including the fact that



Select one alternative:

- ☐ psychology rejected behaviorism's emphasis on humans' subjective states.
- ☒ classical behaviorism failed to consider the mental processes underlying cognition. 
- ☐ humans are more similar to computers than to other species studied in the laboratory.
- ☐ humans' behavior can be changed by learning.

Rätt. 1 av 1 poäng.

- 9 Recognition errors (like *CQRN* mistaking for *CORN*) lead us to what conclusion about feature nets?


Select one alternative:

- ☐ Feature nets are the only possible explanation for object recognition.
- ☒ Feature nets explain accurate performance, but not errors. 
- ☐ The normal functioning of feature nets usually allows us to identify stimuli, but can also lead to errors. 
- ☐ Feature nets are an imperfect system, and thus unlikely to accurately represent our cognitive processing.

Fel. 0 av 1 poäng.

10 Evidence suggests that interference


Select one alternative:

- ☒ probably explains more forgetting than decay does. 
- ☐ occurs for all memories.
- ☐ accounts for the forgetting of semantic memories but not autobiographical memories.
- ☐ in combination with repression explains virtually all of forgetting.

Rätt. 1 av 1 poäng.

11 Which of the following statements is NOT true of executive control?


Select one alternative:

- ☐ It seems to rely on the prefrontal cortex.
- ☐ It is used to keep current goals active.
- ☒ It is needed for habitual responding. 
- ☐ It inhibits distracting thoughts.

Rätt. 1 av 1 poäng.

12 Which of the following statements most accurately describes visual illusions?

Select one alternative:

- ☐ Illusions will not occur if you know how to avoid them.
- ☒ Cognitive principles that generally help us can cause illusions in some cases. 
- ☐ Illusions can occur for shape and size, but not for color or brightness.
- ☐ Illusions are mostly beneficial to perception.

Rätt. 1 av 1 poäng.

- 13** Dr. Lexicon wants to examine the extent to which being a bilingual speaker—someone who speaks two languages—affects cognition compared to those who speak only one language (monolingual speakers). Which of the following is a method that Dr. Lexicon, a cognitive psychologist, would be likely to use to study these potential differences?

Select one alternative:

- ☐ Cognitive psychologists only use neuroimaging techniques in their research, so Dr. Lexicon will track differences in brain activity between bilingual and monolingual speakers.
- ☐ He will ask his participants to describe their experiences when reading to determine whether bilingual participants read differently than monolingual participants.
- ☒ He will measure how long it takes for participants to say whether a sentence is true or false in their native languages to determine whether knowing two languages slows cognitive processing. ✓
- ☐ He will only study children because it is not possible to meaningfully compare child cognition to adult cognition.

Rätt. 1 av 1 poäng.

- 14** Which of the following problems is most ill-defined?


Select one alternative:

- ☒ Sarah is trying to think of a way to impress her boss. ✓
- ☐ Susan is trying to decide which route to take to the soccer game.
- ☐ Samantha is having trouble solving a crossword puzzle.
- ☐ Sheila cannot decide whether to go to a movie this evening or study in the library.

Rätt. 1 av 1 poäng.

15 Which of the following would NOT be considered an advantage of parallel processing in the visual system?



Select one alternative:

- ☐ Different systems can work together to negotiate an accurate interpretation.
- ☐ It is faster than serial processing.
- ☒ Information is processed only once, making it efficient. 
- ☐ Multiple areas can process the information simultaneously.

Rätt. 1 av 1 poäng.

16 A problem-solving set


Select one alternative:

- ☐ can lead the problem solver to ignore options that obviously will not lead to the goal 
- ☒ is crucial for well-defined problems but cannot help with ill-defined problems. 
- ☐ is an obstacle for non-expert problem solvers but not for experts.
- ☐ is generally an obstacle to problem solving, so one should seek to approach a problem without a set.

Fel. 0 av 1 poäng.

- 17 Imagine you are shown the word “dog” and asked one of the following questions about that word. Which question will lead to the best memory performance?


Select one alternative:

- ☐ Does it rhyme with “log”?
- ☒ Does it fit into the following sentence: “The speeding car swung around the corner, music playing, and screeched to a halt when seeing the _____”? 
- ☐ Does it contain an “A”?
- ☐ Does it fit into the sentence, “The _____ enjoyed his dinner”?

Rätt. 1 av 1 poäng.

- 18 Which of the following claims about the role of the neuronal workspace is true?



Select one alternative:

- ☐ The workspace is crucial to mental steps that rely on habit.
- ☐ The workspace prevents activity from occurring in multiple areas of the brain, to avoid confusion.
- ☐ The workspace creates conflicts between different areas of the brain, which must then be resolved through unconscious reasoning.
- ☒ The workspace links other active areas of the brain, allowing for the “executive” to make decisions about current processing. 

Rätt. 1 av 1 poäng.

- 19** Research suggests that, if you see a blue giraffe at the zoo, you'll still recognize it as a giraffe, despite the new color. This point reminds us that


Select one alternative:

- ☐ to decide whether a new, slightly different case is a member of a category, we need to decide which differences from the prototype (or existing exemplars) are likely to matter. 
- ☐ surface differences, like color, can be sufficient to exclude a new case from a category.
- ☒ there are only some types of differences between a prototype and a new case that actually matter, and color is not one of them. 
- ☐ the use of information about cause and effect is necessary when comparing a new case to an existing prototype (or set of exemplars).

Fel. 0 av 1 poäng.

- 20** Facial recognition depends on


Select one alternative:

- ☐ identification of the shapes of specific features, such as the nose or the eyes.
- ☐ recognizing the face's geons.
- ☒ perception of the overall configuration of the face. 
- ☐ seeing the person from the appropriate distance.

Rätt. 1 av 1 poäng.

21 In which of the following situations would we expect the fastest response time?


Select one alternative:

- ☐ The stimulus being presented to the participant is identical in form to the warning signal but is different from the stimulus that the participant expected.
- ☐ The stimulus being presented to the participant is very different from the stimulus used as the warning signal.
- ☒ The stimulus being presented to the participant is the stimulus that the participant expected. 
- ☐ The stimulus being presented to the participant is identical in form to the stimulus used as the warning signal.

Rätt. 1 av 1 poäng.

22 Attention seems to be necessary for


Select one alternative:

- ☐ eye movements.
- ☐ change blindness.
- ☐ perceptual priming.
- ☒ conscious perception. 

Rätt. 1 av 1 poäng.

- 23** When compared to the statement “A canary is an animal,” the reaction time for “A bird is an animal” will be


Select one alternative:

- ☒ faster. 
- ☐ equal.
- ☐ unknown; there is not enough information to make a decision.
- ☐ slower.

Rätt. 1 av 1 poäng.

- 24** A participant is asked, “In the list of words I showed you earlier, was there a word that rhymed with ‘lake’?” The participant is likely to be well prepared for this sort of memory test if they


Select one alternative:

- ☒ paid attention to the sounds of the words when trying to memorize them. 
- ☐ relied on perceptual fluency when studying the words.
- ☐ paid attention to the appearance of the words when trying to memorize them.
- ☐ used maintenance rehearsal when trying to memorize the words.

Rätt. 1 av 1 poäng.

25 The fact that we are unaware of most of our mental processing is a


Select one alternative:

- ☐ bad thing, because much more information about our underlying mental processes would make reasoning more efficient.
- ☐ good thing, because we can reliably infer what our mental processes are, so there's no need to monitor them.
- ☐ bad thing, because most tasks would be completed faster if we were aware of these processes.
- ☒ good thing, because awareness of all of our processing would likely send us into information overload 

Rätt. 1 av 1 poäng.

26 The tendency to be rigid in how one thinks about an object's function is called

Select one alternative:

- ☐ functional narrowness.
- ☒ functional fixedness. 
- ☐ mapping.
- ☐ incubation.

Rätt. 1 av 1 poäng.

- 27** Sarah wonders why she can never remember the names of new acquaintances. In search of an answer, she examines and reflects on her feelings about meeting new people. Sarah is engaged in which process?

Select one alternative:

☒ introspection



☐ learning history analysis

☐ goal retrieval

☐ information processing

Rätt. 1 av 1 poäng.

- 28** One possible difference between a “sleeping brain” and an “awake brain” relates to the neuronal workspace. Which of the following statements most accurately represents this relationship?

Select one alternative:

☐ Changes in brain activity are monitored by the neuronal workspace when you are asleep, but not when you are awake.

☐ When you are asleep, the neuronal workspace allows areas of the brain to communicate with each other, which leads to dreaming.

☒ When you are awake, the neuronal workspace allows areas of the brain to communicate with each other, which plausibly gives rise to consciousness.



☐ The workspace encourages the combination and integration of conflicting information when you are asleep, but not when you are awake.

Rätt. 1 av 1 poäng.

- 29** Imagine you are putting together a puzzle. You have a broad idea of what the finished puzzle will look like, and you're guided by that idea as you work. Your broad idea is acting as a

Select one alternative:

- ☐ complication.
- ☐ bottom-up influence.
- ☐ distraction.
- ☒ top-down influence.



Rätt. 1 av 1 poäng.

- 30** All of the following are tips that you should give a friend who you are encouraging to use analogies more often when problem solving, EXCEPT

Select one alternative:

- ☐ try to see the mapping between problems you already know and the problem that you're trying to solve.
- ☒ focus on the exact phrasing of the problem, as it will often suggest a solution to the problem.
- ☐ attend to the deep structure of the problem.
- ☐ search your memory for content related to the deep structure of the problem, not its surface details.



Rätt. 1 av 1 poäng.

- 31** On one trial of an experiment, a participant is shown the sequence *GWXT*. On a different trial, the participant is shown the sequence *PAFE*. On the basis of prior research, we should expect that

Select one alternative:

- ☒ PAFE will be easier to perceive than GWXT because detectors for PA and FE are likely to be well primed.
- ☐ participants will correctly perceive more of the letters in GWXT because they are likely to confuse PAFE with PACE or SAFE.
- ☐ the letter sequences will be equally difficult to perceive because both contain regular bigram patterns.
- ☐ the letter sequences will be equally difficult to perceive because neither is a word.

Rätt. 1 av 1 poäng.

- 32** Geraldo, a lawyer, has read about a case (*Jones v. Arizona*) that he thinks will help one of his clients. Geraldo wants to make sure that he remembers to discuss the case with his client, and also wants to remember to bring up the case in his opening statement in court. His best approach is likely to be to


Select one alternative:

- ☐ put the case book containing Jones v. Arizona on his desk with all of the other books and hope he finds it when his client arrives and when he writes his opening statement.
- ☐ repeat to himself, over and over again, "Don't forget Jones v. Arizona."
- ☒ build multiple retrieval paths between the new case and the situations in which he wishes to use it.
- ☐ reread the summary of the case several times.

Rätt. 1 av 1 poäng.

- 33** An experimenter reads a list of 30 words to a group of participants at the rate of 1 word per second. This is immediately followed by a free recall test. A second group of participants hears the same 30 words presented at the faster rate of 2 words per second. We should expect that the group hearing the slower presentation will show improved memory performance for the


Select one alternative:

- ☐ words at the list's end, but there will be no improvement for the words earlier in the list.
- ☒ pre-recency portion of the list, but there will be no impact on the recency effect. 
- ☐ words at the end of the list and diminished performance for the pre-recency portion of the list.
- ☐ entire list.

Rätt. 1 av 1 poäng.

- 34** A participant is asked to memorize a series of word pairs, including the pair "heavy–light." The participant is asked a series of questions: "Was 'lamp' one of the words you saw? Was 'candle' one of the words? Was 'spark' one of the words? Was 'light' one of the words?" The participant answers "no" to each of these questions, because


Select one alternative:

- ☐ the learning context led the participant to think in terms of opposites, while the test context led the participant to think in terms of semantic associates.
- ☐ the learning context does not provide adequate support for perceptual encoding.
- ☒ what was memorized was the idea of "light" as a description of weight, not "light" as illumination. 
- ☐ the learning context does relatively little to encourage deep processing.

Rätt. 1 av 1 poäng.

35 Words perceived as relevant to oneself are remembered _____ compared to words in other categories because _____.



Select one alternative:

- ☐ better; the autobiographical perspective leads to a reminiscence bump
- ☒ better; self-referential information undergoes increased processing in the brain 
- ☐ worse; self-referential information is negatively biased, and thus harder to remember, because of one's past
- ☐ similarly; all memories are reconstructed similarly regardless of their relationship to oneself

Rätt. 1 av 1 poäng.

36 When selecting a course of action framed in terms of either losing lives or saving lives following an epidemic of a serious disease, people typically choose


Select one alternative:

- ☐ the least risky option.
- ☐ the riskier option for lost lives and the less risky option for saved lives. 
- ☐ the riskier option.
- ☒ the riskier option for saved lives and the less risky option for lost lives. 

Fel. 0 av 1 poäng.

37 The development of computers facilitated research in cognition by


Select one alternative:

- ☐ providing a way to directly confirm the accuracy of participants' introspection.
- ☐ turning against behavioral principles.
- ☒ suggesting hypotheses that framed cognition as stages of information processing. 
- ☐ integrating elements of subjective experiences.

Rätt. 1 av 1 poäng.

38 An important difference between categorization via exemplars and categorization via prototypes is that when using exemplars

Select one alternative:

- ☒ the standard used in a particular category can vary from one occasion to the next. 
- ☐ categorization depends on a judgment of resemblance.
- ☐ categories are represented in the mind by a single relatively concrete illustration of the category.
- ☐ one categorizes objects by comparing them to a mentally represented standard.

Rätt. 1 av 1 poäng.

39 Studies of mental rotation indicate that

Select one alternative:

- ☐ participants seem able to compare objects in mental imagery without bothering to imagine these objects rotated into alignment.
- ☐ participants are able to imagine the rotation of a two-dimensional display but are unable to imagine rotation in depth.
- ☐ imagined rotation in depth is faster than imagined rotation in two dimensions.
- ☒ the greater the degree of rotation required, the more time is needed to imagine the rotation.

Rätt. 1 av 1 poäng.

40 The action pathway corresponds with the _____ system, while the identification pathway corresponds with the _____ system.



Select one alternative:

- ☐ distance; evaluation
- ☐ what; where
- ☒ where; what
- ☐ evaluation; distance

Rätt. 1 av 1 poäng.

- 41** Bartlett asked British participants to read stories from Native American folklore, and he later asked them to recall details of the stories. His findings reveal which important idea about memory?


Select one alternative:

- ☒ The strength of connections determines how well a story will be remembered. 
- ☐ Memory errors are often the result of attempts to understand what one is learning. 
- ☐ Apparently forgotten details can often be remembered with appropriate cues.
- ☐ Memory is remarkably good, even for complex stories.

Fel. 0 av 1 poäng.

- 42** Why is unconscious processing sometimes called “irresistible”?


Select one alternative:

- ☒ Our unconscious is inflexible, making it difficult to adjust or overrule routines. 
- ☐ It is an attractive topic for psychologists to study.
- ☐ There are no limits to what the unconscious can achieve.
- ☐ Freud coined the phrase, and it is still in use today.

Rätt. 1 av 1 poäng.

- 43** In Trial 18 of a sentence verification task, participants see the sentence “A robin is a bird.” In Trial 42 they see “A penguin is a bird.” According to the prototype notion, we should expect faster responses to


Select one alternative:

- ☒ “robin” because participants more readily see the resemblance between “robin” and the bird prototype. 
- ☐ “penguin” because penguins are unique birds and thus easily identified.
- ☐ “penguin” because of response priming.
- ☐ “robin” because it is a shorter word.

Rätt. 1 av 1 poäng.

- 44** “All dogs are animals. Some animals are pets. Therefore, some dogs are pets.” This example is a(n) _____ syllogism that is likely to be endorsed as _____ due to the belief bias.



Select one alternative:

- ☒ invalid; true 
- ☐ valid; false
- ☐ invalid; false
- ☐ valid; true

Rätt. 1 av 1 poäng.

45 When making judgments using the representativeness heuristic, participants


Select one alternative:

- ☒ rely on base rates. 
- ☐ are sensitive to the sample size and draw conclusions more easily from a large sample.
- ☐ generalize from a sample of evidence if the category is homogeneous but not if the category is heterogeneous.
- ☐ seem to assume that all members of the category resemble the prototype for that category. 

Fel. 0 av 1 poäng.

46 Which of the following is NOT consistent with Gestalt principles?


Select one alternative:

- ☐ People tend to interpret objects that are close together as belonging to the same group and more distant objects as belonging to separate groups.
- ☐ People tend to interpret forms in the simplest way possible.
- ☐ People tend to infer that an object is only partly visible because of another object in front of it, rather than because it is incomplete.
- ☒ People tend to assume that an arrangement of objects was created by a human rather than occurring naturally. 

Rätt. 1 av 1 poäng.

- 47** Participants viewed a series of slides depicting an automobile accident. Immediately afterward, half of the participants were asked, "How fast were the cars going when they hit each other?" The other participants were asked, "How fast were the cars going when they smashed into each other?" One week later, all participants were asked more questions about the slides, including whether they had seen any broken glass in the slides. A comparison of the two groups of participants is likely to show that


Select one alternative:

- ☐ participants who were asked the "smashed" question gave higher estimates of speed, but the groups gave similar responses to the "broken glass" question.
- ☒ participants who were asked the "smashed" question gave higher estimates of speed and were more likely to remember seeing broken glass. 
- ☐ the minor contrast in wording in how the groups were questioned had no effect on participants' memories.
- ☐ the groups gave similar estimates of speed, but the "smashed" group was more likely to remember seeing broken glass.

Rätt. 1 av 1 poäng.

- 48** The existence of task-general resources is illustrated by the demonstration that

Select one alternative:

- ☒ interference between two tasks can sometimes be observed even if the two tasks have few elements in common. 
- ☐ some brain lesions disrupt all tasks requiring attention.
- ☐ similar tasks will not interfere with each other.
- ☐ a heavily practiced task is more likely to cause interference with other tasks than a less-practiced task.

Rätt. 1 av 1 poäng.

49 As a general rule, the intention to learn

Select one alternative:

- ☐ usually leads to worse learning than incidental learning.
- ☐ leads all people to adopt the same memory strategies.
- ☐ has a direct effect on learning.
- ☒ has no direct effect on learning.



Rätt. 1 av 1 poäng.

50 A physician has just read an article about a recently developed drug. Which of the following is LEAST important in determining whether the physician will remember the article later?

Select one alternative:

- ☐ The physician realized how suggestions within the article could be integrated with other things she already knew.
- ☐ The physician read the article carefully to determine whether it was persuasive.
- ☐ The physician quickly saw that the new drug might have multiple uses, so she thought about several circumstances in which she might use it.
- ☒ The physician expected to need the information later and therefore used a maintenance memorization strategy that had helped her memorize material in the past.



Rätt. 1 av 1 poäng.