

Institutt for psykologi

# Eksamensoppgave i PSY1012/PSYPRO4112 – Kognitiv psykologi I

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Eksamensdato: 15. mai 2017		
Eksamenstid: 09:00-13:00		
Hjelpemiddelkode/Tillatte hjelpemidler: Ingen		
Målform/språk: Bokmål Antall sider (uten forside): 1 Antall sider vedlegg: 0		
Informasjon om trykking av eksamensoppgave Originalen er:		Kontrollert av:
		Kontrollert av:
Originalen er:	Dato	Kontrollert av:

### Velg to av de tre spørsmålene

- 1. Beskriv forståelse av muntlig og skriftlig språk.
- 2. Forklar forskjellen mellom "sansing" og "persepsjon".
- 3. Hva er amnesi, og hva forteller det oss om hukommelsens struktur? Er amnesi den eneste patologien i hukommelsen?

#### Exam questions PSY 1012/PSYPRO 4312- spring 2017. Choose two out of three questions.

1. Describe understanding of oral and written language. Beskriv forståelse av muntlig og skriftlig språk.

Sensorveiledning:

Her bør språk defineres og beskrives. Talepersepsjon og forståelse av mening kan tas opp. Det samme kan forståelse av syntax. Om man tar for seg diskusjonen om talepersepsjon som ordinært eller spesielt skal dette belønnes. I tillegg bør man ha tatt for seg lesing enten perseptuelle prosesser eller leksikalsk tilgang, eventuelt begge. Det er også mulighet for å fokusere mest på forståelse av samtale og større deler av tekst enn ord. Oppgaven gir muligheter for å velge blant ulike tema og kan også løses ved mest fokus på nevropsykologiske prosesser i språk fra kapittel 10.

Language should be defined and described. Speech perception and understanding of meaning could be addressed, as syntax in understanding of language. The discussion of speech perception as ordinary or special should be rewarded. In addition, one should address reading, either by perceptual processes or lexical access or both. There is also the possibility to focus mostly on understanding of conversation and larger parts of text. The question provides opportunities to choose between different topics and could also be solved by focusing mostly on neuropsychological processes in language from chapter 10.

## 2. Explain the difference between "sensation" and "perception".

Sensorveiledning:

Sensation and perception are two completely different elements in terms of how they process information. In sensation, the physical stimulus, together with its physical properties, is registered by sensory organs. Then, the organs decode this information, and transform them into neural impulses or signals. These signals are transmitted to the sensory cortices of the brain. The line of difference between sensation and perception is now drawn; perception follows sensation. In the brain, the nerve impulses go through a series of organization, translation and interpretation. Once perception is finished, a person is able to "make sense" out of the sensations. For instance, seeing the light (sensation) is different from determining its color (perception). Another example is that feeling the coldness of

the environment is different from perceiving that winter is coming. Also, hearing a sound is different from perceiving the music being played. The use of top-down and bottom-up approaches to the organisation of perception should be positively be rewarded in the answers.

# 3. What is amnesia, and what does it tell us about the structure of memory? Is amnesia the only pathology of memory?

Hva er amnesi, og hva forteller det oss om hukommelsens struktur? Er amnesi den eneste patologien i hukommelsen?

Sensorveiledning:

Amnesia is a severe loss of declarative memory. Retrograde amnesia is the loss of memory from before the event that caused amnesia. Anterograde amnesia is an impairment in the acquisition of new information. Retrograde without anterograde amnesia can be cause by concussion. Anterograde amnesia may be caused by damage to the hippocampus and other medial temporal lobe structures.

Study of preserved memory in amnesic patients led to an attempt to characterise common features of spared capacities. This led to the distinction between declarative or explicit and non-declarative, procedural or implicit memory. As a consequence, an amnesic patient may learn a new motor skill, such as playing table tennis, without remembering ever having practiced it. Sternberg does not go into the distinctions between the different forms of non-declarative memory, so if a student is aware of that, that is a bonus.

Students may not classify agnosias as memory impairments because they are mentioned in a chapter on perception. Those who do may realise that agnosias come in many different forms. Thus, impairments in the semantic part of declarative memory can be specific to sensory modality and to specific classes of items, while there is no report of such specificity regarding impairments of episodic memory.

Likewise, aphasias are mentioned in the context of language, so students may not realise that aphasia can be seen as impairments in semantic memory.

The chapter on memory does mention that Alzheimer's disease involves the loss of both episodic and semantic memory. Although intellectual impairments are mentioned, the book does not clearly link those to the central executive component of working memory. Students who mention that go beyond the pensum.