Human mind readings and chapter reviews

Chapter 1 – science of the mind

1. **Define Cognitive Psychology and list the cognitive processes included**

Cognitive psychology: the scientific study of knowledge
Intellectual – remembering, attending, making judgements
Or activities that depend on these intellectual achievements
Two ideas: we cannot study the mental world through direct observations
We must study the mental world if we are to understand behaviour, as it depends on how we perceive/understand the world around us

2. **Explain the advantages and disadvantages of introspection and behaviourism**

Introspection (to look within to observe and record content of our own mental lices and the sequence of our own experiences)
Advantages: gave insight into internal thoughts and feelings, and a way to study them
Disadvantage: it wasn't scientific

Behaviourism:
Advanatages: observable, recordable, physical
Disadvanatage: not all behaviour could be defined in the terms, e.g. some behaviours couldn't be explained by overt events

3. **Describe Kant's Transcendental Method**

Begin with observable facts and work back from the observations. So therefore how did these observations come about? What must be the underlying causes that led to these effects. This is because things cant be studied directly.

4. **Describe the working memory system and its components**

Memory you ise for information that you are actively working on, so that it easily accessible
Promoted by several factors:
Size – working memory is only small capacity
Several different parts – so call it a working memory system.

- Central executive: This is the component of the system needed for any interpretation or analysis; in contrast, mere storage of materials can be provided by working memory's assistants, which work under the control of the central executive.
- Articulatory rehersal loop: This loop draws on subvocalized (covert) speech, which serves to create a record in the phonological buffer. Materials in this buffer then fade, but they can be refreshed by another cycle of covert speech.
    - Subvocalization (inner voice):Covert speech, in which you go through the motions of speaking, or perhaps form a detailed motor plan for speech movements, but without making any sound.
    - Phonological buffer (inner ear): The phonological buffer serves as part of the mechanisms ordinarily needed for hearing. Materials within the buffer then fade, but they can be refreshed by new covert speech under the control of the central executive.

Chapter 3 – object recognition

1. **Define form perception and object recognition and describe why they are important for our interactions with the world**

Form perception: the process through which you manage to see the basic shape and size of an object.
Object recognition: the process through which you identify what the object is.
They are important because – you want to apply your knowledge to the world. Object recognition is critical for learning, and is essential for interactions with the world.

2. **Describe how the Gestalt psychologists found evidence that form perception goes beyond the stimulus itself**

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Your perception contains information (the form is arranged in depth, or about which part is the figure/ground) that is not contained within the stimulus itself. Therefore the change is caused by you, and your perception goes beyond the information given. However, as we are all governed by the same rules of interpretations we tend to see similar things.

3. **Explain how we know that form perception depends on the parallel processing of a pattern's basic features along with its large-scale configuration**

Many aspects of the brains functioning depend on parallel processing, with different brain areas all doing their work at the same time. The brain analysed a pattern basic features do their work at the same tine as the brain areas analysing the patterns large scale configuration.

4. **Distinguish between bottom-up (stimulus driven) and top-down (knowledgedriven) processes**

Bottom-up (stimulus driven) processes: some influences come directly from the stimulus itself, the features that are in view.
Top-down (knowledge driven) processes: other influences come from you, rather than the stimulus itself, goes beyond the information given. These influences rely on your knowledge.

5. **Describe the effects of familiarity and recency on word and letter recognition and the effect of well-formedness on word recognition**

Familiarity: how familiar a stimulus is
Recency: how recently they viewed the stimuli (the first exposure primes the participant for the second exposure, this is a case of repetition priming)
Well-formedness: pronounceablity → easily to pronounce words provide context benefit. Also Englishness of letter strings (e.g. the degree to which the letter sequence in the string conforms to normal spelling patterns in English), is a good predictor of word recognition