Worksheet 3.2

Example answer to essay question 1 (Chapter 3)

This model answer is a guide for students in terms of structure and content. It represents above-average work.

1 Evaluate schema theory with reference to research studies. [22 marks]

The main idea underlying schema theory is that the way we process information, and the way we act in specific settings, is determined to a significant extent by relevant previous knowledge stored in our memory. Such knowledge is said to be organized in the form of schemas—cognitive structures that provide a framework for organizing information about the world, events, people and actions.

According to schema theory, schemas perform several interrelated functions:

• they organize information in memory
• they can be activated, often automatically, to increase information-processing efficiency
• in the form of stereotypes (social schemas), they influence social perception and behaviour, often when automatically activated
• they can lead to distortions and mistakes when the wrong schemas become activated.

The functions of schemas have been investigated in many studies.

Bartlett (1932) asked his English participants to read *The War of the Ghosts*, a Native American folk tale. The participants’ memory for this story was tested by repeated reproduction, where the same participant contributed six or seven reproductions, at various intervals after reading the story. Unsurprisingly, with successive reproductions, the story became shorter and shorter. The most important findings related to the distortions the participants were introducing in their recall of the story. Several distortions were in the direction of making the story more understandable from the point of view of the participants’ experiences and cultural background. Thus, activities which were unfamiliar (‘hunting seals’) were changed into more familiar ones (‘fishing’). On several occasions, ‘canoes’ became ‘boats’. The combined effect of these changes was to transform a strange American folk tale into a conventional English story. According to Bartlett, the way the participants recalled the story came under the influence of relevant schematic knowledge in the participants’ memory. Such knowledge consisted of schemas acquired in and reflective of the participants’ own culture.

Bartlett’s work suggests that memory is an active reconstructive process, rather than a passive reproductive one. Bartlett’s views on schemas and memory as a reconstructive process have exerted a significant influence in modern psychology. His work has been criticized, however, on methodological grounds as he did not explicitly asked his participants to be as accurate as possible, nor did he care much about the exact environments in which his studies were carried out. But confirmation of his major findings has come from several well-controlled studies (Eysenck and Keane, 2010).
Macrae et al. (1994) clearly demonstrated one of the most basic properties of schemas – that they can simplify information-processing and function as ‘energy-saving devices’. He asked participants to carry out two tasks at the same time. In the first, participants had to form impressions of a number of target persons described by their name and 10 personality characteristics. While carrying out this task, they were also participating in a comprehension test. There were two conditions: half of the participants were told the jobs of the targets, the other half did not receive this information. It was assumed that, when forming their impressions, the first group of participants would be able to use their stereotypical knowledge of the targets’ professions to simplify the processing demands of the impression-formation task. Participants who relied on the job stereotypes did perform better at both tasks.

Participants in Loftus and Palmer’s (1974) study watched seven film clips of different car accidents. After each clip, participants described what they saw and answered a number of questions about it. One of the questions, the critical question, asked about the speed of the cars in the accident. The experiment involved five experimental conditions. The conditions were defined by the verb used to ask the critical question about the cars’ speeds. In one of the conditions, the question was: About how fast were the cars going when they hit each other? In the other conditions, ‘hit’ was replaced with ‘contacted’, ‘collided with’, ‘bumped into’ and ‘smashed into’. Loftus and Palmer found that the speed estimates were influenced by the wording used. For example, ‘hit’ led to an average estimate of 34 mph, the corresponding average for ‘smashed into’ was 40.8 mph.

Loftus and Palmer’s findings can be explained by Bartlett’s view of memory as an active reconstructive process. It can be argued that the verbs used in the various conditions activated different schemas, which influenced the speed estimates. Typical schemas of cars smashing into one another contain, in all likelihood, the assumption that the cars are moving faster than cars just hitting each other.

Many of the studies discussed above were laboratory experiments. This raises questions about their ecological validity. Eysenck (2010) discusses the ecological validity of studies of eyewitness testimony and notes that there may be several differences between the laboratory and real-life situations. Such criticism should not detract from the fact that schematic influences have been repeatedly demonstrated.

The studies I discussed above indicate that, as schema theory claims, schemas help us organize and process information efficiently. This, along with the fact that schemas are usually activated automatically makes them ‘energy-saving devices’. Schemas are relatively stable and usually very resistant to change – so they ensure continuity in the ways we process information and act. In situations where new encounters require a genuinely novel approach, when schema-based expectations conflict with reality, or simply the wrong schemas become activated, errors and distortions in the way we perceive, remember and think are all but inevitable.

As Eysenck (2009) remarks: ‘Schema theories have proved generally successful. Of particular importance, they have identified some of the main reasons why our memories are sometimes distorted.’ However, many have complained that schema-based theories tend to be vague in that they do not specify the precise nature of schemas. Schema theory is a cognitive theory relying on the notion of the schema. Schemas are not, of course, directly observable. Like any cognitive structure, they are inferred from behavioural evidence, not always an easy task.