1.1 The three approaches

Name: _____ Class: _____ Date: _____ **Total: 34 marks**

KEY WORDS neuroplasticity • schema • social identity theory

The three approaches

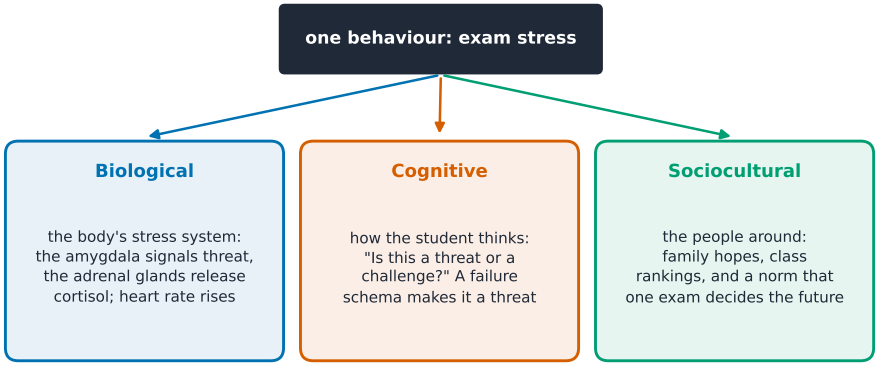
Objective

Explain behaviour through the biological, cognitive and sociocultural approaches, describe one named study for each idea with its result, and answer Paper 1 Section A short-answer questions (4 marks each) for the course first assessed in 2027.

1 Key knowledge and worked examples

Approaches toolkit. Biological: localisation (H.M.); neuroplasticity (Maguire: 16 taxi drivers against 50 controls, a correlation; Draganski: juggling, an experiment); MRI shows structure, fMRI activity from blood flow, EEG electrical timing; neurotransmitters and hormones (Kosfeld oxytocin: 45% against 21% gave all); twins (Kendler: genes about 38% of depression risk); gene–environment interaction (Caspi 5-HTT, only after stressful events). Cognitive: a model must make predictions; multi-store and working memory; schemas and reconstructive memory (Bartlett); System 1 and 2, anchoring (wheel 10 → 25%, 65 → 45%); leading questions (Loftus and Palmer: "smashed" 40.8 mph, "contacted" 31.8 mph); flashbulb memory (Neisser and Harsch). Sociocultural: social identity (Tajfel's minimal groups); social learning, four steps (Bandura); conformity (Asch: about a third of answers; Bond and Smith: higher in collectivist cultures); Berry's four acculturation strategies.

Worked example 1: one behaviour, three levels. Exam stress before the gaokao: biological (cortisol rises), cognitive (the student appraises the exam as a threat), sociocultural (family hopes and class rankings). Each level explains a different part of the same behaviour.



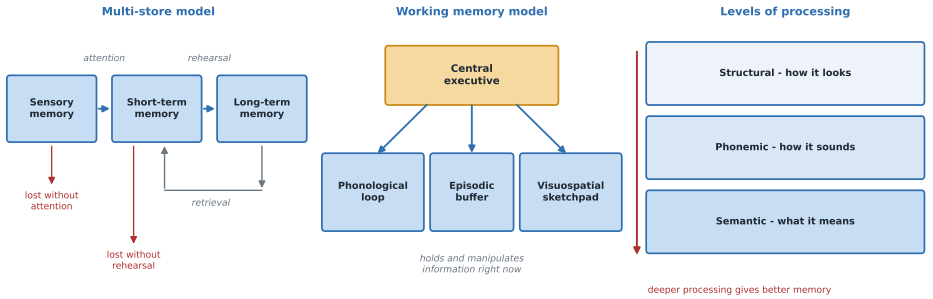
The levels interact: a threat appraisal raises cortisol, and a calm teacher can lower both.

Worked example 2: a 4-mark answer. *Describe one study of the reliability of memory.*

> Loftus and Palmer (1974) showed 45 students films of car crashes and asked how fast the cars were going when they "smashed" or "contacted" each other (the IV was the verb). "Smashed" gave a mean estimate of 40.8 mph and "contacted" 31.8 mph. A week later, 32% of the "smashed" group said they had seen broken glass, against 14% of the "hit" group. This suggests that a leading question can change the memory itself, so memory is not always reliable.

The four marks come from: the study named, the method (what was changed), the result with numbers, and a link back to the question.

Worked example 3: a model makes predictions. Working memory predicts that two tasks clash only when they use the same part. Repeating words (phonological loop) and counting aloud (also the loop) clash; repeating words and picturing a map (sketchpad) do not.



2 Practice

2.1 Define localisation of function and neuroplasticity. [2]

2.2 Maguire et al. (2000) found that taxi drivers had a larger posterior hippocampus. State the comparison, explain why this study cannot show that driving caused the change, and name a study that can. [3]

2.3 Explain the logic of a twin study, and what Kendler et al.'s (2006) figure of about 38% means for depression. [3]

2.4 Using the working memory model, predict which pair of tasks will interfere more: (a) learning a word list while tapping a rhythm on the desk and picturing a route; (b) learning a word list while saying "the, the, the" aloud. Give a reason. [2]

2.5 In Tversky and Kahneman's (1974) study the wheel stopped at 10 or 65. State the two typical answers and name the bias. [2]

2.6 Name Berry's acculturation strategy for each student who moves from Chengdu to study in Toronto: (a) she keeps speaking Sichuanese at home and also joins the school's debating club; (b) he stops using Chinese and spends time only with Canadian friends; (c) she mixes only with other Chinese students and avoids local events; (d) he feels part of neither group. [4]

3 Exam-style questions

3.1 *(Paper 1 Section A.)* Describe one study of neuroplasticity. [4]

3.2 *(Paper 1 Section A.)* Explain how schemas can affect memory, with reference to one study. [4]

3.3 *(Paper 1 Section A.)* Explain social identity theory, with reference to one study. [4]

3.4 *(Original, 6 marks.)* Using Caspi et al. (2003), explain why one approach alone cannot fully explain depression. [6]