

3.9 Social, Cognitive, and Neurological Factors in Learning

Name: _____ Class: _____ Date: _____

Total: 18 marks

KEY WORDS cognitive map 认知地图 • insight 顿悟 • latent learning 潜伏学习
• observation 观察 • biological preparedness 生物准备性

Objective

Build the skills to answer exam questions on **observational learning** 观察学习 and cognitive influences.

You must be able to:

- describe **modelling** 示范 and the conditions that make it effective
- explain **latent learning** 潜伏学习 and what a **cognitive map** 认知地图 shows
- describe **insight** 顿悟 learning
- explain **biological preparedness** 生物准备性 and taste aversion

1 Worked examples

Study these first. Each one shows the method for a task used later.

■ Modelling

Behaviour can be acquired by watching another person, without any reinforcement to the observer. Imitation is more likely when the model is similar, admired, or seen to be rewarded.

■ Latent learning

Animals allowed to explore a maze without reward later run it efficiently once reward is introduced. Learning had occurred without performance, which shows that learning and performance are separate.

■ Insight

A solution can arrive suddenly, after a pause rather than through gradual trial and error. This indicates internal restructuring of the problem rather than incremental reinforcement.

■ Biological preparedness

Some associations are learned far more easily than others. A single episode of illness can produce a lasting aversion to a taste, even hours later, while the same delay would prevent most conditioning. Organisms are prepared to learn what mattered to survival.

2 Practice

2.1 State two conditions that make imitation of a model more likely. [2]

2.2 Explain what latent learning shows about learning and performance. [2]

2.3 A person becomes ill hours after eating an unfamiliar dish and avoids it afterwards.

(a) Name the phenomenon. [1]

(b) State why the long delay is theoretically interesting. [1]

3 Exam-style questions

3.1 A child copies an adult's aggressive behaviour after watching it rewarded. This is [1]

- | | |
|---|---|
| A | B |
| C | D |
- A classical conditioning
B observational learning
C latent learning
D insight

3.2 A sudden solution after a pause, without gradual improvement, indicates [1]

- | | |
|---|---|
| A | B |
| C | D |
- A shaping
B insight
C extinction
D generalisation

3.3 Conditioning a rat to fear a tone takes many pairings; a taste aversion needs one.

- (a) Name the principle explaining the difference. [1]
- (b) Explain why it makes evolutionary sense. [2]

3.4 Applied research task. Children watched an adult either hit an inflatable doll, play gently with it, or ignore it. In a third condition the adult hit the doll and was then praised; in a fourth the adult hit the doll and was then scolded. Children who saw the praised adult imitated most; children who saw the scolded adult imitated least — but when later offered a reward for showing what the adult had done, both groups could reproduce the behaviour equally well.

- (a) Name the theory this study supports, and name the researcher. [2]

- (b) Name the process by which the children's imitation was affected by what happened to the adult, and explain it. [2]

- (c) Explain what the final result — equal reproduction when rewarded — shows about the difference between learning and performance. [2]

- (d) Identify **one** ethical concern raised by this study. [1]
