

2.7 Forgetting and Other Memory Challenges

Name: _____ Class: _____ Date: _____ **Total: 12 marks**

KEY WORDS misinformation effect 错误信息效应 • interference 干扰 • encoding failure 编码失败
• proactive 前摄 • retroactive 倒摄

Objective

Build the skills to answer exam questions on **forgetting** 遗忘 and memory error.

You must be able to:

- distinguish **encoding failure**, **storage decay** and **retrieval failure**
- contrast **proactive** 前摄 and **retroactive** 倒摄 interference
- describe the **misinformation effect** 错误信息效应
- explain why **eyewitness** 目击者 confidence is a weak guide to accuracy

1 Worked examples

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

■ **Three kinds of forgetting**

Encoding failure: it never entered memory. **Storage decay:** it faded over time. **Retrieval failure:** it is there but cannot be reached — the tip-of-the-tongue state proves this happens.

■ **Two interferences**

Proactive interference: old learning disrupts new (an old password intrudes). **Retroactive** interference: new learning disrupts old (this year’s timetable replaces last year’s).

■ **The misinformation effect**

Information encountered **after** an event can be incorporated into the memory of it. A leading question — “how fast were the cars going when they smashed?” — changes what witnesses later report seeing.

■ **Confidence and accuracy**

Repeated retelling and confirming feedback raise confidence without raising accuracy. A confident witness may be wrong, and confidence therefore cannot be used to verify a memory.

2 Practice

2.1 State the three main causes of forgetting. [3]

2.2 Explain the difference between proactive and retroactive interference. [2]

2.3 Witnesses are asked how fast cars were going when they “smashed into” each other.

- (a) Name the effect this wording may produce. [1]
- (b) State what it shows about memory. [1]

3 Exam-style questions

3.1 The tip-of-the-tongue experience is best evidence for [1]

- **A** encoding failure
- **B** storage decay
- **C** retrieval failure
- **D** the misinformation effect

3.2 A student’s old locker combination keeps intruding on the new one. This is [1]

- **A** proactive interference
- **B** retroactive interference
- **C** encoding failure
- **D** consolidation

3.3 An eyewitness becomes more confident after being told another witness agrees.

(a) State what has changed and what has not. [2]

(b) State one procedural safeguard against this. [1]

Solutions

2.1 encoding failure — it never entered memory; storage decay — it faded over time; retrieval failure — it is stored but cannot be accessed.

2.2 proactive: old learning disrupts new learning; retroactive: new learning disrupts old learning.

2.3 (a) the misinformation effect. (b) memory can be altered by information received after the event.

3.1 C. the information is clearly stored, since it arrives later unprompted.

3.2 A. earlier learning is interfering with later learning.

3.3 (a) confidence has risen; accuracy has not. (b) avoid giving witnesses feedback about other witnesses, and record confidence before any feedback.