

HOLIDAY HOMEWORK 假期作业

# AP Psychology

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Exercise sheets and past-paper practice, topic by topic.

每个单元：练习卷 + 历年真题。

For class or self-study • no answer keys included.

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# 1 Neurons, neurotransmitters, and the divided nervous system – Part 1

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English                        | 中文      | Write it 3 times (English) |
|--------------------------------|---------|----------------------------|
| neuron                         | 神经元     | _____                      |
| all-or-none principle          | 全或无原则   | _____                      |
| threshold                      | 阈限      | _____                      |
| synapse                        | 突触      | _____                      |
| neurotransmitter               | 神经递质    | _____                      |
| reuptake                       | 再摄取     | _____                      |
| sympathetic nervous system     | 交感神经系统  | _____                      |
| parasympathetic nervous system | 副交感神经系统 | _____                      |

## Recall

- You know that a knock on the knee makes your leg jump before you decide anything.
- You have felt your heart race before an exam and slow again afterwards.
- You know that coffee changes how alert you feel.

## New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

### ■ 1 How a neuron fires

A **neuron** 神经元 fires all at once or not at all. This is the **all-or-none principle** 全或无原则: a weak signal that reaches the **threshold** 阈限 produces exactly the same size of firing as a strong one. Strength is coded by how *often* the neuron fires, not by how hard.

*Worked example.* A quiet sound and a loud sound both make a neuron fire the same size of signal; the loud sound just makes it fire more times per second.

### ■ 2 The gap between neurons

Neurons do not touch. A signal crosses the **synapse** 突触 as a chemical called a **neurotransmitter** 神经递质. Afterwards the chemical is taken back in by **reuptake** 再摄取, which clears the gap for the next signal.

*Worked example.* A drug that blocks reuptake leaves more of the chemical in the gap for longer, so the next neuron keeps being stimulated.

### ■ 3 Two divisions that work against each other

The **sympathetic nervous system** 交感神经系统 prepares the body for action - heart faster, pupils wider. The **parasympathetic nervous system** 副交感神经系统 restores the resting state. They are not on and off; they are two opposing systems, and the body's state is the balance between them.

*Worked example.* Your heart races when the teacher hands out the paper, then slows once you start writing - one system rose, then the other took over.

**Watch out:** The all-or-none principle is about *size*, not about *speed* or *frequency*. Saying that a strong stimulus makes a bigger signal is the commonest error on this topic.

## Practice

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**2.1** State the all-or-none principle. [2]

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**2.2** A neuron receives a very strong stimulus. Explain how the strength is represented. [2]

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**2.3** Name the process that clears a neurotransmitter from the synapse. [1]

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**2.4** A drug blocks that process. State the effect on the next neuron. [2]

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**2.5** Name the two divisions of the autonomic nervous system and state what each does. [2]

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**2.6** Explain why the two divisions are described as a balance rather than a switch. [1]

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**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

**Directions:** You have 50 minutes to answer BOTH of the following questions. It is not enough to answer a question by merely listing facts. You should present a cogent argument based on your critical analysis of the questions posed, using appropriate psychological terminology. You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Free Response booklet.**

1. Gavin's parents took him to his favorite science museum, and he explored all of the exhibits. One of the interactive exhibits featured glass marbles. He grabbed a large marble and tried to bounce it on the ground. At one point during the visit, he became separated from his parents, and it took a few minutes for them to find him. Later that night, he drew a colorful picture of the exhibits at the museum. The next day, Gavin brought his picture with him to preschool. While his grandmother drove, Gavin talked to her about the picture.

**Part A**

- Explain how Jean Piaget's concept of assimilation could relate to Gavin's experience with the glass marble.
- Explain how egocentrism could relate to how Gavin interacted with his grandmother in the car.
- Explain how avoidant attachment could relate to Gavin when he was separated from his parents.

**Part B**

Explain how each of the following terms could relate to Gavin in this scenario.

- Serial position effect
- Motor cortex
- Cognitive map
- Cones in the retina

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**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

# 1 Sleep, drugs, and the biology of behaviour – Part 2

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English    | 中文     | Write it 3 times (English) |
|------------|--------|----------------------------|
| REM sleep  | 快速眼动睡眠 | _____                      |
| agonist    | 激动剂    | _____                      |
| antagonist | 拮抗剂    | _____                      |
| tolerance  | 耐受性    | _____                      |

## Recall

- You know you feel worse after a night with four hours of sleep than after eight.
- You have noticed that a second cup of coffee does less than the first.
- You know some medicines make people drowsy and others do not.

## New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

### ■ 1 Sleep is a cycle, not a switch

Sleep runs in repeating stages. **REM sleep** 快速眼动睡眠 is where most vivid dreaming happens, and the proportion of REM rises through the night. Losing sleep does not remove a fixed amount of rest; it removes disproportionately more of the *late* stages.

*Worked example.* Someone who sleeps four hours instead of eight loses far more than half their REM, because most of it comes in the second half of the night.

## ■ 2 How drugs act at the synapse

An **agonist** 激动剂 mimics or increases a neurotransmitter's effect; an **antagonist** 拮抗剂 blocks it. Both work at the synapse described in Part 1, which is why the same vocabulary explains medicines, caffeine and addictive drugs.

*Worked example.* A drug that occupies a receptor without activating it is an antagonist: the real neurotransmitter now has nowhere to bind.

## ■ 3 Tolerance and why doses rise

With repeated use the body adjusts, so the same dose produces less effect. This is **tolerance** 耐受性, and it is a biological adjustment rather than a failure of willpower.

*Worked example.* A person who drinks coffee daily feels less alert from one cup than a person who never drinks it - the same dose, a different body.

**Watch out:** An agonist is not “a good drug” and an antagonist is not “a bad drug”. The words describe what the molecule does at the receptor, not whether the effect is wanted.

## Practice

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2.1 State what REM sleep is associated with. [1]

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2.2 Explain why losing half a night's sleep removes more than half the REM. [2]

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2.3 Define an agonist and an antagonist. [2]

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2.4 A molecule sits in a receptor without activating it. State which term applies and why. [2]

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2.5 Define tolerance. [1]

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**2.6** Explain why tolerance is a biological finding rather than a moral one.

[2]

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**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

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**Part A**

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- Explain how egocentrism could relate to how Gavin interacted with his grandmother in the car.
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**Part B**

Explain how each of the following terms could relate to Gavin in this scenario.

- Serial position effect
- Motor cortex
- Cognitive map
- Cones in the retina

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**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

## 2 Memory: encoding, storage, and why forgetting happens – Part 1

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

### Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English                  | 中文     | Write it 3 times (English) |       |       |
|--------------------------|--------|----------------------------|-------|-------|
| encoding                 | 编码     | _____                      | _____ | _____ |
| storage                  | 存储     | _____                      | _____ | _____ |
| retrieval                | 提取     | _____                      | _____ | _____ |
| Retrieval cues           | 提取线索   | _____                      | _____ | _____ |
| Context-dependent memory | 情境依赖记忆 | _____                      | _____ | _____ |
| proactive interference   | 前摄干扰   | _____                      | _____ | _____ |
| retroactive interference | 倒摄干扰   | _____                      | _____ | _____ |

### Recall

- You have forgotten a phone number seconds after hearing it.
- You can still sing a song you have not heard for years.
- You know that testing yourself works better than reading a page again.

### New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

### ■ 1 Three stages, three failures

Memory has **encoding** 编码 (getting information in), **storage** 存储 (holding it) and **retrieval** 提取 (getting it out). Forgetting can fail at any of the three, and the remedy differs each time.

*Worked example.* A name you never really attended to was never encoded; a name on the tip of your tongue was encoded and stored but not retrieved.

### ■ 2 Why cues matter

**Retrieval cues** 提取线索 are the hooks that bring a memory back. **Context-dependent memory** 情境依赖记忆 means recall improves when the surroundings match those at encoding, which is why revisiting a place brings memories with it.

*Worked example.* You cannot remember why you walked into a room; you go back to where you started and the reason returns - the original context was the cue.

### ■ 3 Interference

Old learning can block new (**proactive interference** 前摄干扰) and new learning can block old (**retroactive interference** 倒摄干扰). Both are failures of retrieval rather than losses from storage.

*Worked example.* After changing your password, the old one keeps coming to mind - proactive interference.

**Watch out:** “I forgot” is not one explanation but three. An answer that does not say *which stage* failed has not explained anything.

## Practice

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2.1 Name the three stages of memory. [3]

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2.2 A name is on the tip of your tongue. State which stage has failed and why. [2]

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2.3 Define a retrieval cue. [1]

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2.4 Explain what context-dependent memory predicts about revising in the exam room. [2]

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**2.5** Distinguish proactive from retroactive interference. [2]

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**2.6** Explain why interference is described as a retrieval failure. [1]

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**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

**Directions:** You have 50 minutes to answer BOTH of the following questions. It is not enough to answer a question by merely listing facts. You should present a cogent argument based on your critical analysis of the questions posed, using appropriate psychological terminology. You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Free Response booklet.**

1. Claire's sports team made it to the championship basketball game. To play the game, the teammates will need to work together to move a ball toward their own goal. They must then aim carefully to throw the ball into a hoop that is elevated about 10 feet off the ground. The winner is the team that gets the ball into the hoop the most times.

**Part A**

Explain how each of the following might help Claire be successful during the game.

- Retinal disparity
- Intrinsic motivation
- Social facilitation
- Kinesthetic sense

**Part B**

Claire's team won the championship game. Ten years later, the team got together for a reunion at the gym where the game was originally held. At the reunion, they discussed the championship game.

Explain how each of the following might influence Claire's recollection of the game.

- Context-dependent memory
- Self-serving bias
- Retroactive interference

---

**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

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**Part A**

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**Part B**

Explain how each of the following terms could relate to Gavin in this scenario.

- Serial position effect
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- Cognitive map
- Cones in the retina

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## 2 Thinking, bias, and how questions shape answers – Part 2

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

### Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English                | 中文     | Write it 3 times (English) |
|------------------------|--------|----------------------------|
| heuristic              | 启发法    | _____                      |
| availability heuristic | 可得性启发法 | _____                      |
| Framing                | 框架效应   | _____                      |
| Confirmation bias      | 确认偏误   | _____                      |

### Recall

- You have guessed an answer because it “felt right” and been wrong.
- You have noticed that people remember the news stories that scared them.
- You know a question can be asked in a way that pushes you towards one reply.

### New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

#### ■ 1 Fast shortcuts

A **heuristic** 启发法 is a mental shortcut that is usually right and sometimes badly wrong. The **availability heuristic** 可得性启发法 judges how likely something is by how easily an example comes to mind, which makes vivid and recent events seem more common than they are.

*Worked example.* People overestimate the danger of plane crashes because crashes are reported and safe flights are not.

## ■ 2 Framing

**Framing** 框架效应 means the same information changes a decision depending on how it is worded. A treatment described as “90% survive” is chosen more often than one described as “10% die”, although the two say the same thing.

*Worked example.* A shop selling “95% fat free” yoghurt sells more than one selling yoghurt with “5% fat”.

## ■ 3 Confirmation bias

**Confirmation bias** 确认偏误 is the tendency to look for and remember evidence that fits what you already believe. It is not lying: the person genuinely does not notice the contrary cases.

*Worked example.* Someone convinced a friend is unlucky remembers every mishap and forgets the ordinary days.

**Watch out:** A heuristic is not the same as a bias. The heuristic is the shortcut; the bias is the systematic error it produces in particular situations.

## Practice

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2.1 Define a heuristic. [1]

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2.2 Explain how the availability heuristic makes rare events feel common. [2]

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2.3 Define framing. [1]

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2.4 Two treatments are described as “90% survive” and “10% die”. State what the difference in response demonstrates. [2]

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2.5 Define confirmation bias. [1]

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**2.6** Explain why confirmation bias is not the same as deliberate dishonesty. [2]

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**2.7** Distinguish a heuristic from a bias. [1]

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**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

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1. Claire's sports team made it to the championship basketball game. To play the game, the teammates will need to work together to move a ball toward their own goal. They must then aim carefully to throw the ball into a hoop that is elevated about 10 feet off the ground. The winner is the team that gets the ball into the hoop the most times.

**Part A**

Explain how each of the following might help Claire be successful during the game.

- Retinal disparity
- Intrinsic motivation
- Social facilitation
- Kinesthetic sense

**Part B**

Claire's team won the championship game. Ten years later, the team got together for a reunion at the gym where the game was originally held. At the reunion, they discussed the championship game.

Explain how each of the following might influence Claire's recollection of the game.

- Context-dependent memory
- Self-serving bias
- Retroactive interference

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**Using the source provided, respond to all parts of the question.**

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1. Your response to the question should be provided in six parts: A, B, C, D, E, and F. Write the response to each part of the question in complete sentences. Use appropriate psychological terminology in your response.
- A. Identify the research method used in the study.
  - B. State the operational definition of high misinformation in the study.
  - C. Describe what the mean indicates for the percentage of correct responses between the high misinformation group and the low misinformation group.
  - D. Identify at least one ethical guideline applied by the researchers.
  - E. Explain the extent to which the research findings may or may not be generalizable using specific and relevant evidence from the study.
  - F. Explain how at least one of the research findings supports or refutes the misinformation effect.

### **Introduction**

This research study explores the effect of being presented with varying amounts of misinformation about a specific event on the memory of that event.

### **Participants**

A total of 127 students at a large university were recruited through the university's research participation system. They participated in the study in exchange for course credit. The final sample of participants was 69% women and 31% men. The race/ethnicity of the participants was reported as follows: 65% Hispanic/Latino/a, 15% Black/African American, 11% White/European American, 4% Asian/Asian American, and 5% Other.<sup>1</sup> The participants ranged in age from 18 to 39 years old (mean age = 21.21, standard deviation = 3.28).

### **Method**

After providing consent, participants viewed a 6.5-minute silent video of a mock crime. The video depicted an electrician entering a house to fix items such as an oven and a light fixture. While he was in the house, he stole some of the owners' possessions. After watching the video, participants completed a 12-minute trivia questionnaire as a distractor task.<sup>2</sup> Participants completed all portions of the study online.

Participants were then told that eight previous participants had written brief summaries of the robbery shown in the video. They were also told that one of those summaries would be presented to them, along with a profile of the previous participant, to refresh their memory. Unknown to the participants, these "previous participants" were not real people. The researchers created the previous participants' profiles based on the demographics of the population of students on the university campus. The goal was to create believable profiles so that the summaries would be more credible to the participants.

Participants were randomly assigned to one of three conditions to receive a summary with a specific amount of misinformation:

- Low misinformation condition: 8 of 40 sentences (20% misleading information)
- Medium misinformation condition: 20 of 40 sentences (50% misleading information)
- High misinformation condition: 32 of 40 sentences (80% misleading information)

The misleading information changed details about items seen in the video. No information was added. The non-misleading sentences were neutral to avoid strengthening the participant's memory of the target items. For example, a misleading item description was, "He noticed the dresser was covered with a brown cloth." In reality, the cloth was navy blue. The neutral description of that item was, "He noticed the dresser was covered with a cloth."

After reading an entire previous participant's summary, each current participant completed a 5-minute math test as a distractor task. Then, all participants were asked an identical set of 40 multiple-choice questions in random order about the mock crime video. Each question had three answer options:

1. Correct: the correct option corresponding to what was shown in the video (e.g., a navy blue cloth);
2. Misled: an incorrect answer that reflected misinformation provided in the summaries (e.g., a brown cloth); and
3. Incorrect: an incorrect answer containing information that was not portrayed in the video or any summary (e.g., a yellow cloth).

Participants then completed a questionnaire asking about the credibility of the previous participant's summary (e.g., "How good was the quality of the summary?" and "How familiar with the video was the participant who wrote this summary?").

## Results and Discussion

The researchers analyzed the results of the questionnaire by comparing participants' correct responses with how participants viewed the credibility of the previous participant's summary. The researchers hypothesized that if participants distrusted the summary, they would be less likely to incorporate the information into their memory of the event, leading to their being less likely to choose an incorrect answer. The results are shown in the table.

Mean Percentages of Correct, Misled, and Incorrect Responses for Each Misinformation Condition

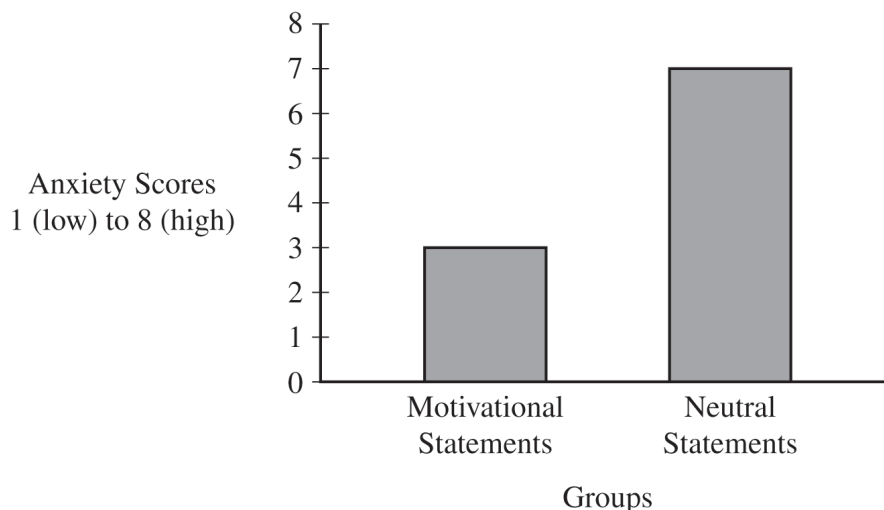
| Response Type | Misinformation Condition  |                             |                          |
|---------------|---------------------------|-----------------------------|--------------------------|
|               | High Misinformation Group | Medium Misinformation Group | Low misinformation Group |
| Correct       | 63%                       | 66%                         | 74%                      |
| Misled        | 30%                       | 27%                         | 19%                      |
| Incorrect     | 7%                        | 7%                          | 7%                       |

The researchers found that within each condition, participants performed best if they distrusted the accuracy of the summary. Participants who were presented with higher levels of misinformation were more likely to report being distrustful, and those who reported being distrustful of the summary resisted more misinformation than those who did not.

Pena, M. M., Klemfuss, J. Z., Loftus, E. F., & Mindthoff, A. (2017). The effects of exposure to different amounts of misinformation and source credibility perception on source monitoring and memory accuracy. *Psychology of Consciousness: Theory, Research, and Practice*, 4(4), 337-347.

- 1: Language referencing racial, ethnic, or gender identities may be outdated or fail to reflect the complexities of identity that participants represent. Race/ethnicity categories reflect those reported in the original research article.
- 2: a task that is unrelated to the primary task that participants are asked to complete before they are asked to recall the target information.

2. Dr. Dawson is a psychologist who believes that students who read motivational statements before a test will experience lower levels of anxiety as compared with students who read neutral statements. To examine this belief, he conducted a study. In the study, he randomly assigned half of the participants to read motivational statements and the other half to read neutral statements. Immediately after reading the statements, all of the students completed a survey about their current level of anxiety (1 = low; 8 = high) and then took the test. Dr. Dawson found statistically significant results that are depicted in the graph.



Part A

- State a valid operational definition of the dependent variable in this study.
- Identify the control group in this study.
- Explain why the study would be considered an experiment.
- Explain how the results of the study do or do not support Dr. Dawson's hypothesis.

Part B

The test Dr. Dawson gave was a vocabulary test. Explain how the following terms might relate to the students who performed poorly on the test in this study.

- External locus of control
- Stage one of Selye's general adaptation syndrome
- Crystallized intelligence

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**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

**STOP**

**END OF EXAM**

# 3 Learning: three ways behaviour changes

## – Part 1

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

### Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English                | 中文      | Write it 3 times (English) |
|------------------------|---------|----------------------------|
| classical conditioning | 经典条件作用  | _____                      |
| operant conditioning   | 操作性条件作用 | _____                      |
| Reinforcement          | 强化      | _____                      |
| punishment             | 惩罚      | _____                      |
| Observational learning | 观察学习    | _____                      |

### Recall

- You know a dog can learn to come when a tin is opened.
- You have kept doing something because it worked last time.
- You have learned a skill by copying someone before trying it yourself.

### New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

#### ■ 1 Learning by association

In **classical conditioning** 经典条件作用 a neutral signal comes to produce a response because it reliably precedes something that already produces it. The learner does nothing; the association is between two events in the world.

*Worked example.* A tin opener sounds just before food arrives; after enough repetitions the dog salivates at the sound alone.

## ■ 2 Learning by consequence

In **operant conditioning** 操作性条件作用 behaviour changes because of what follows it. **Reinforcement** 强化 makes a behaviour more likely and **punishment** 惩罚 makes it less likely - defined by their effect, not by whether they are pleasant.

*Worked example.* A child tidies up and is praised; the tidying becomes more frequent. Praise counts as reinforcement because the behaviour rose.

## ■ 3 Learning by watching

**Observational learning** 观察学习 means acquiring a behaviour by watching someone else, without performing it or being reinforced. This is why a behaviour can appear fully formed the first time it is tried.

*Worked example.* A learner who has watched an experienced cook chop an onion holds the knife correctly on the first attempt.

**Watch out:** Reinforcement and punishment are defined by what happens to the *behaviour*, not by whether the consequence feels good. A scolding that increases the behaviour is reinforcement, not punishment.

## Practice

2.1 Define classical conditioning. [2]

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2.2 Define operant conditioning. [2]

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2.3 State how reinforcement and punishment are distinguished. [2]

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2.4 A child is scolded for interrupting and interrupts more often. State which term applies and why. [2]

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**2.5** Define observational learning.

[1]

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**2.6** Explain why observational learning is difficult to explain with reinforcement alone.[2]

2. Michael is the regional manager for a car company and needs to give a presentation to the president of the company about how different management styles might relate to the total number of sales of the company’s new electric car. He hires an industrial/organizational psychologist to study three stores, each in a different city. Each store’s manager has their own distinct management style:
- In Store A, the manager has a supportive style (open and warm).
  - In Store B, the manager has a strict style (rigid and severe).
  - In Store C, the manager, who is Michael’s good friend, has a distant style (permissive and disengaged).

The number of electric cars sold at each store over a five-month period is shown in the table.

|          | ELECTRIC CARS SOLD BY STORE |                        |                         |
|----------|-----------------------------|------------------------|-------------------------|
| Month    | Store A (supportive style)  | Store B (strict style) | Store C (distant style) |
| January  | 9                           | 7                      | 3                       |
| February | 7                           | 8                      | 2                       |
| March    | 9                           | 5                      | 5                       |
| April    | 5                           | 3                      | 4                       |
| May      | 5                           | 2                      | 1                       |

- Explain why this study is not a true experiment.
- Identify the implied dependent variable for the study if the study had been a true experiment.
- Calculate the mean of Store B’s sales.
- Explain why the location of the store is a confounding variable in this study.
- Explain how the halo effect could influence Michael’s interpretation of the findings.
- Explain why the hiring of an industrial/organizational psychologist was appropriate for this study.
- Explain how Michael could use positive reinforcement to help him finish his presentation by the deadline.

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

STOP

END OF EXAM

**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

**Directions:** You have 50 minutes to answer BOTH of the following questions. It is not enough to answer a question by merely listing facts. You should present a cogent argument based on your critical analysis of the questions posed, using appropriate psychological terminology. You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Free Response booklet.**

1. Gavin's parents took him to his favorite science museum, and he explored all of the exhibits. One of the interactive exhibits featured glass marbles. He grabbed a large marble and tried to bounce it on the ground. At one point during the visit, he became separated from his parents, and it took a few minutes for them to find him. Later that night, he drew a colorful picture of the exhibits at the museum. The next day, Gavin brought his picture with him to preschool. While his grandmother drove, Gavin talked to her about the picture.

**Part A**

- Explain how Jean Piaget's concept of assimilation could relate to Gavin's experience with the glass marble.
- Explain how egocentrism could relate to how Gavin interacted with his grandmother in the car.
- Explain how avoidant attachment could relate to Gavin when he was separated from his parents.

**Part B**

Explain how each of the following terms could relate to Gavin in this scenario.

- Serial position effect
- Motor cortex
- Cognitive map
- Cones in the retina

---

**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

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**Directions:** You have 50 minutes to answer BOTH of the following questions. It is not enough to answer a question by merely listing facts. You should present a cogent argument based on your critical analysis of the questions posed, using appropriate psychological terminology. You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Free Response booklet.**

1. Gavin's parents took him to his favorite science museum, and he explored all of the exhibits. One of the interactive exhibits featured glass marbles. He grabbed a large marble and tried to bounce it on the ground. At one point during the visit, he became separated from his parents, and it took a few minutes for them to find him. Later that night, he drew a colorful picture of the exhibits at the museum. The next day, Gavin brought his picture with him to preschool. While his grandmother drove, Gavin talked to her about the picture.

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**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

# 3 Development: what changes with age and what does not – Part 2

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English           | 中文    | Write it 3 times (English) |
|-------------------|-------|----------------------------|
| object permanence | 客体永久性 | _____                      |
| conservation      | 守恒    | _____                      |
| Attachment        | 依恋    | _____                      |
| heritability      | 遗传率   | _____                      |

## Recall

- You know a young child cannot understand a joke that an older one finds funny.
- You have seen a baby become upset when a parent leaves the room.
- You know that identical twins raised apart still resemble each other in some ways.

## New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

### ■ 1 Stages of thinking

Piaget argued that children's thinking changes in kind, not only in amount. A child develops **object permanence** 客体永久性 - knowing a thing still exists when hidden - and later **conservation** 守恒 - knowing that quantity does not change when the shape does.

*Worked example.* Pouring the same juice into a tall thin glass makes a young child say there is more; an older child says it is the same.

## ■ 2 Attachment

**Attachment** 依恋 is the emotional bond between infant and caregiver. Its pattern is measured by how the infant responds to separation and reunion, not by how upset they get on its own.

*Worked example.* Two infants both cry when the parent leaves; the difference that matters is whether they are comforted when the parent returns.

## ■ 3 Nature and nurture together

Almost every trait reflects both inheritance and environment. Twin and adoption studies estimate **heritability** 遗传率 - how much of the *variation in a population* is explained by genetic differences. It is a statement about a group, never about one person.

*Worked example.* A heritability of 0.5 for a trait does not mean half of your own score came from your genes.

**Watch out:** Heritability is a population statistic. Applying it to an individual - “half of his intelligence is genetic” - is a misuse of the number, not a simplification of it.

## Practice

2.1 Define object permanence. [1]

---

2.2 Define conservation and give an example. [2]

---

---

2.3 State what the pattern of attachment is measured by. [2]

---

---

2.4 Two infants cry equally when a parent leaves. State what distinguishes their attachment patterns. [2]

---

---

2.5 Define heritability. [2]

---

---

**2.6** Explain why a heritability estimate cannot be applied to one person. [2]

---

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**Using the source provided, respond to all parts of the question.**

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1. Your response to the question should be provided in six parts: A, B, C, D, E, and F. Write the response to each part of the question in complete sentences. Use appropriate psychological terminology in your response.
- A. Identify the research method used in the study.
  - B. State the operational definition of person-oriented dog behaviors.
  - C. Describe what the mean of the person-oriented behaviors indicates for the laughing trials as compared to the talking trials.
  - D. Identify at least one ethical guideline applied by the researchers.
  - E. Explain the extent to which the research findings may or may not be generalizable using specific and relevant evidence from the study.
  - F. Explain how at least one of the research findings supports or refutes the idea that dogs' expressions of the person-oriented behaviors demonstrate stimulus discrimination in operant conditioning.

### **Introduction**

Dogs often comfort their owners by making visual and/or physical contact when the owners cry or by providing help to their owners when they are sick. The study examined whether a dog's reactions to a person's emotions differ based on the dog's prior experience with the person (owner versus stranger).

### **Participants**

Researchers recruited community members with nonaggressive dogs via email. Of those recruited, 16 dog and owner pairs participated in this study. The owners ranged in age from 25 to 60 years (mean age = 47.06 years; standard deviation = 11.89 years), and the dogs ranged in age from 2 years to 13 years (mean age = 6.87 years; standard deviation = 3.35 years). The length of time the owners had their dogs before the study began ranged from 2 months to 13 years (mean = 5.70 years; standard deviation = 3.69 years). The study included the following dog breeds, with the number of each in parentheses: Lab mix (3), black Lab (1), terrier mix (2), corgi or corgi mix (3), French bulldog (1), Jack Russell terrier (1), miniature pinscher (1), miniature schnauzer (1), Shih Tzu (2), and wirehaired pointing griffon (1).

### **Method**

Each dog owner received and signed a consent form. Researchers tested each dog at their owner's house, and the dogs received dog biscuits as compensation for participation in the study.

All dog and owner pairs participated in all four trials of the study. This is called a "within-subjects" design, which means that researchers observe each participant in every condition of the study so that a participant can be directly compared to themselves across conditions. The "within-subjects" design serves the same purpose as random assignment.

A researcher who was unfamiliar with the dogs before the study played the role of the stranger. Upon entering each participant’s home, this “stranger-researcher” ignored the dogs by not interacting with them in any way. The stranger-researcher asked the owner to follow the same set of instructions during each trial:

“When you are asked to cry, please pretend to cry to the best of your ability for 20 seconds. The researcher will tell you when to begin and when to stop. When you are asked to laugh, please pretend to laugh to the best of your ability for 20 seconds. When you are acting, please use approximately the same volume. Also, please do not refer to your dog by name, look directly at them, or initiate or reciprocate physical contact during the study.”

The owners and the stranger-researcher stayed seated and moved their bodies naturally while they acted out the different emotional states, but they stayed seated. Each dog participated in four separate 20-second-long trials in which (1) the owner cried, (2) the stranger-researcher cried, (3) the owner laughed, and (4) the stranger-researcher laughed.

The order of these trials was counterbalanced across dogs, meaning that each dog completed the four trials in a randomized order. Before the trials began (baseline), in between each trial, and at the end of the fourth trial, the stranger-researcher and the owner had a light-hearted conversation for 2 minutes to reset the emotional experience for the dogs and the owners.

**Results and Discussion**

Researchers focused on two different kinds of dog behaviors. Person-oriented dog behaviors included looking at a person (either the owner or the stranger-researcher), making contact with a person (touching the person in some way), approaching a person, and vocalizing at a person (barking, whining, etc.). Non-person-oriented dog behaviors included passive behavior (e.g., lying down or sitting), walking, solitary play, and general vocalizing (not directed at a person). The total number of person-oriented behaviors from the dogs for each trial behavior the owners and researcher-strangers acted out is presented in the table.

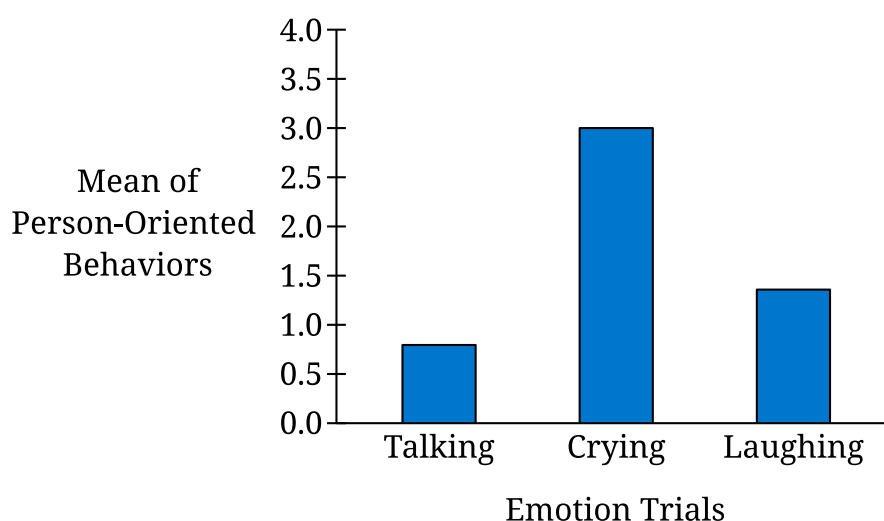
Total Number of Person-Oriented Dog Behaviors for Each Trial

| Behavior        | Dogs Looking | Dogs Making Contact | Dogs Approaching | Dogs Vocalizing | Total Person-Oriented Behaviors |
|-----------------|--------------|---------------------|------------------|-----------------|---------------------------------|
| Baseline        | 5            | 3                   | 2                | 2               | 12                              |
| Owner crying    | 20           | 15                  | 6                | 1               | 42                              |
| Owner laughing  | 11           | 2                   | 2                | 0               | 15                              |
| Stranger crying | 24           | 11                  | 8                | 3               | 46                              |

| Behavior          | Dogs Looking | Dogs Making Contact | Dogs Approaching | Dogs Vocalizing | Total Person-Oriented Behaviors |
|-------------------|--------------|---------------------|------------------|-----------------|---------------------------------|
| Stranger laughing | 11           | 7                   | 2                | 0               | 20                              |
| Totals            | 71           | 38                  | 20               | 6               | 135                             |

The graph displays the means for the number of person-oriented behaviors for the three types of emotions. The results are statistically significant ( $p < 0.0011^1$ ):

**Mean of Person-Oriented Behaviors for Emotion Trials**



The results show that the crying trial elicited significantly more person-oriented behaviors than the laughing and talking trials. The mean of person-oriented behaviors when the owner and stranger-researcher were crying significantly differed from the means for laughing and talking, but the means for laughing and talking did not significantly differ from each other. Importantly, dogs primarily engaged with the individual who was crying, regardless of whether they were the owner or the stranger-researcher. In the owner-crying trial, dogs demonstrated person-oriented behaviors 75% of the time, and in the stranger-researcher-crying trial, dogs demonstrated the person-oriented behaviors 73% of the time.

Meyers-Manor, J. E., & Botten, M. L. (2020). A shoulder to cry on: Heart rate variability and empathetic behavioral responses to crying and laughing in dogs. *Canadian Journal of Experimental Psychology / Revue canadienne de psychologie expérimentale*, 74(3), 235–243.

**1:** p values indicate statistical significance. A p value of less than 0.05 is generally considered significant and increases the likelihood that the difference in means is due to the procedures of the study.

2. Michael is the regional manager for a car company and needs to give a presentation to the president of the company about how different management styles might relate to the total number of sales of the company's new electric car. He hires an industrial/organizational psychologist to study three stores, each in a different city. Each store's manager has their own distinct management style:

- In Store A, the manager has a supportive style (open and warm).
- In Store B, the manager has a strict style (rigid and severe).
- In Store C, the manager, who is Michael's good friend, has a distant style (permissive and disengaged).

The number of electric cars sold at each store over a five-month period is shown in the table.

|          | ELECTRIC CARS SOLD BY STORE |                        |                         |
|----------|-----------------------------|------------------------|-------------------------|
| Month    | Store A (supportive style)  | Store B (strict style) | Store C (distant style) |
| January  | 9                           | 7                      | 3                       |
| February | 7                           | 8                      | 2                       |
| March    | 9                           | 5                      | 5                       |
| April    | 5                           | 3                      | 4                       |
| May      | 5                           | 2                      | 1                       |

- Explain why this study is not a true experiment.
- Identify the implied dependent variable for the study if the study had been a true experiment.
- Calculate the mean of Store B's sales.
- Explain why the location of the store is a confounding variable in this study.
- Explain how the halo effect could influence Michael's interpretation of the findings.
- Explain why the hiring of an industrial/organizational psychologist was appropriate for this study.
- Explain how Michael could use positive reinforcement to help him finish his presentation by the deadline.

---

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**STOP**

**END OF EXAM**

**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

**Directions:** You have 50 minutes to answer BOTH of the following questions. It is not enough to answer a question by merely listing facts. You should present a cogent argument based on your critical analysis of the questions posed, using appropriate psychological terminology. You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Free Response booklet.**

**1. Part A**

Jordan recently moved to a new school for her senior year of high school, and she has been adjusting to her new environment.

Explain how each of the following relates to Jordan's adjustment to her new school.

- Spotlight effect
- Cognitive map
- Jordan's low level of the Big Five trait of extraversion

**Part B**

Jordan tries out for and makes the debate team. Jordan has made friends with other members of the team, and she really enjoys sitting with them at lunch every day. The coach is impressed with Jordan's debate skills, so he makes her captain of the team. When Jordan starts to help the coach plan for the next big debate, her friends stop sitting with her at lunch. She then stops helping the coach plan for the next debate but ends up winning it.

Explain how each of the following concepts relates to the scenario.

- Negative punishment
- Formal operational stage of cognitive development
- Actor-observer bias concerning Jordan's debate performance
- Jordan's high level of self-efficacy

---

**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

# 4 Social influence: situations that change behaviour – Part 1

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English                       | 中文     | Write it 3 times (English) |
|-------------------------------|--------|----------------------------|
| Conformity                    | 从众     | _____                      |
| normative                     | 规范性    | _____                      |
| informational                 | 信息性    | _____                      |
| Obedience                     | 服从     | _____                      |
| fundamental attribution error | 基本归因错误 | _____                      |

## Recall

- You have gone along with a group answer you privately doubted.
- You have done something because someone in charge told you to.
- You have behaved differently in a crowd than you would alone.

## New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

### ■ 1 Conformity

**Conformity** 从众 is changing behaviour to match a group. It can be **normative** 规范性 (to be accepted) or **informational** 信息性 (because you believe the group knows better). The two look identical from outside and differ entirely in why.

*Worked example.* A student gives an answer they think is wrong because everyone else said it - normative, since they did not change their belief.

## ■ 2 Obedience

**Obedience** 服从 is following an instruction from an authority. Obedience research found that ordinary people complied far more than anyone predicted, and that small features of the situation - the authority's proximity, whether anyone else refused - changed rates enormously.

*Worked example.* Compliance falls sharply when one other person in the room refuses first.

## ■ 3 The situation over the person

The **fundamental attribution error** 基本归因错误 is over-explaining other people's behaviour by their character and under-explaining it by their situation. Social psychology's central finding is that situations do far more than we expect.

*Worked example.* You assume the driver who cut in front is rude; when you do it yourself, you know you were late.

**Watch out:** Conformity and obedience are not the same. Conformity is horizontal - matching peers; obedience is vertical - following an authority.

## Practice

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2.1 Define conformity. [1]

---

2.2 Distinguish normative from informational conformity. [2]

---

---

2.3 Define obedience and state how it differs from conformity. [2]

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---

2.4 State one situational feature that lowers obedience rates. [1]

---

2.5 Define the fundamental attribution error. [2]

---

---

**2.6** Explain why the error is described as asymmetric between yourself and others. [2]

---

---

**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

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**1. Part A**

Steve is in the kitchen happily making breakfast for his four children, who are all playing together in the living room. After hearing a loud crash, Steve becomes quite upset and rushes into the living room, where he sees a lamp shattered on the floor. The children are watching television, and no one is trying to clean up the lamp.

Explain how each of the following relates to the scenario.

- Soundwave amplitude
- Procedural memory
- Diffusion of responsibility
- Dispositional attribution
- Ghrelin

**Part B**

Instead of asking the children what happened, Steve immediately turns off the television and sends them all outside to rake the large amount of leaves in the backyard. Steve stays irritable for the rest of the day.

Explain how each of the following relates to the scenario.

- Authoritarian parenting style
- Steve's high level of the Big Five trait of neuroticism

---

**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

2. Mobile Gamer Central (MGC) is preparing to launch a new game app. The advertisements for this new game are brightly colored, have lively music, and feature celebrities playing the game. To generate interest in the game, MGC pays to have these advertisements pop up multiple times while people are using other apps on their phone. The marketing director is pleased with the advertising campaign and thinks the game is really fun to play.

Part A

Explain how each of the following concepts relates to the scenario.

- Peripheral route to persuasion
- False consensus effect
- Mere-exposure effect

Part B

After a few weeks with moderate success, MGC’s marketing director decides to test the most effective ways to increase sales of the game. Marketing researchers recruit 100 people to play the new game. They randomly assign half of the people to observe someone demonstrating how the game is played and assign the other half of the people to play the video game themselves. Participants rate how likely they are to buy the game on a scale of 1 (not likely) through 10 (very likely). Results are presented in the table.

| Participants’ Rating | Observed Game Demonstration<br>( <i>n</i> = 50) | Personally Played Game<br>( <i>n</i> = 50) | <i>p</i> value |
|----------------------|-------------------------------------------------|--------------------------------------------|----------------|
| Mean                 | 6 . 31                                          | 2 . 04                                     | < 0 . 001      |
| Standard Deviation   | 1 . 25                                          | 0 . 80                                     |                |

- Identify the operational definition of the dependent variable in the study.
- Explain what the difference between the standard deviations in the study indicates.
- Explain why random assignment is necessary for determining cause and effect in the study.
- Explain what the *p* value allows MGC to conclude about the study.

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

STOP

END OF EXAM

**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

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**Part B**

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Explain how each of the following relates to the scenario.

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---

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## 4 Personality: four ways of explaining a person – Part 2

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

### Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English        | 中文    | Write it 3 times (English) |
|----------------|-------|----------------------------|
| trait approach | 特质取向  | _____                      |
| Big Five       | 大五人格  | _____                      |
| psychodynamic  | 精神动力学 | _____                      |
| humanistic     | 人本主义  | _____                      |

### Recall

- You have described a friend as “outgoing” or “anxious”.
- You know people behave differently at home and at work.
- You have taken an online personality quiz and doubted the result.

### New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

#### ■ 1 Traits

The **trait approach** 特质取向 describes personality as stable dimensions. The **Big Five** 大五人格 - openness, conscientiousness, extraversion, agreeableness, neuroticism - is the standard set because these five keep reappearing when large samples are analysed.

*Worked example.* Two people who both score high on conscientiousness are likely to be organised in situations neither has met before.

## ■ 2 What a trait does and does not predict

Traits predict behaviour **on average across many situations**, not on any single occasion. A quiet extravert at a funeral is not a contradiction of the trait.

*Worked example.* Someone high in extraversion still sits silently in a library - the trait predicts their behaviour across a year, not in one hour.

## ■ 3 Other explanations

The **psychodynamic** 精神动力学 approach explains behaviour by processes the person is unaware of; the **humanistic** 人本主义 approach by the person's own drive toward growth and their self-concept. Each asks a different question, so they can all be partly right.

*Worked example.* The same shy behaviour might be described as a trait, as an unresolved conflict, or as a gap between the actual and ideal self.

**Watch out:** A trait is a description of a pattern, not a cause of it. Saying someone is late because they are disorganised explains nothing until something outside the behaviour is named.

## Practice

2.1 Name the five dimensions of the Big Five. [2]

---

---

2.2 State what a trait predicts and what it does not. [2]

---

---

2.3 An extravert sits silently in a library. Explain why this is not evidence against the trait. [2]

---

---

2.4 State what the psychodynamic approach explains behaviour by. [1]

---

---

2.5 State what the humanistic approach explains behaviour by. [1]

---

---

**2.6** Explain why calling someone disorganised does not explain their lateness. [2]

---

---

**PSYCHOLOGY****SECTION II****Time—50 minutes****2 Questions**

**Directions:** You have 50 minutes to answer BOTH of the following questions. It is not enough to answer a question by merely listing facts. You should present a cogent argument based on your critical analysis of the questions posed, using appropriate psychological terminology. You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Free Response booklet.**

**1. Part A**

Jordan recently moved to a new school for her senior year of high school, and she has been adjusting to her new environment.

Explain how each of the following relates to Jordan's adjustment to her new school.

- Spotlight effect
- Cognitive map
- Jordan's low level of the Big Five trait of extraversion

**Part B**

Jordan tries out for and makes the debate team. Jordan has made friends with other members of the team, and she really enjoys sitting with them at lunch every day. The coach is impressed with Jordan's debate skills, so he makes her captain of the team. When Jordan starts to help the coach plan for the next big debate, her friends stop sitting with her at lunch. She then stops helping the coach plan for the next debate but ends up winning it.

Explain how each of the following concepts relates to the scenario.

- Negative punishment
- Formal operational stage of cognitive development
- Actor-observer bias concerning Jordan's debate performance
- Jordan's high level of self-efficacy

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Explain how each of the following relates to the scenario.

- Soundwave amplitude
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**Part B**

Instead of asking the children what happened, Steve immediately turns off the television and sends them all outside to rake the large amount of leaves in the backyard. Steve stays irritable for the rest of the day.

Explain how each of the following relates to the scenario.

- Authoritarian parenting style
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---

**Using the source provided, respond to all parts of the question.**

---

1. Your response to the question should be provided in six parts: A, B, C, D, E, and F. Write the response to each part of the question in complete sentences. Use appropriate psychological terminology in your response.
  - A. Identify the research method used in the study.
  - B. State the operational definition of person-oriented dog behaviors.
  - C. Describe what the mean of the person-oriented behaviors indicates for the laughing trials as compared to the talking trials.
  - D. Identify at least one ethical guideline applied by the researchers.
  - E. Explain the extent to which the research findings may or may not be generalizable using specific and relevant evidence from the study.
  - F. Explain how at least one of the research findings supports or refutes the idea that dogs' expressions of the person-oriented behaviors demonstrate stimulus discrimination in operant conditioning.

### **Introduction**

Dogs often comfort their owners by making visual and/or physical contact when the owners cry or by providing help to their owners when they are sick. The study examined whether a dog's reactions to a person's emotions differ based on the dog's prior experience with the person (owner versus stranger).

### **Participants**

Researchers recruited community members with nonaggressive dogs via email. Of those recruited, 16 dog and owner pairs participated in this study. The owners ranged in age from 25 to 60 years (mean age = 47.06 years; standard deviation = 11.89 years), and the dogs ranged in age from 2 years to 13 years (mean age = 6.87 years; standard deviation = 3.35 years). The length of time the owners had their dogs before the study began ranged from 2 months to 13 years (mean = 5.70 years; standard deviation = 3.69 years). The study included the following dog breeds, with the number of each in parentheses: Lab mix (3), black Lab (1), terrier mix (2), corgi or corgi mix (3), French bulldog (1), Jack Russell terrier (1), miniature pinscher (1), miniature schnauzer (1), Shih Tzu (2), and wirehaired pointing griffon (1).

### **Method**

Each dog owner received and signed a consent form. Researchers tested each dog at their owner's house, and the dogs received dog biscuits as compensation for participation in the study.

All dog and owner pairs participated in all four trials of the study. This is called a "within-subjects" design, which means that researchers observe each participant in every condition of the study so that a participant can be directly compared to themselves across conditions. The "within-subjects" design serves the same purpose as random assignment.

A researcher who was unfamiliar with the dogs before the study played the role of the stranger. Upon entering each participant's home, this "stranger-researcher" ignored the dogs by not interacting with them in any way. The stranger-researcher asked the owner to follow the same set of instructions during each trial:

"When you are asked to cry, please pretend to cry to the best of your ability for 20 seconds. The researcher will tell you when to begin and when to stop. When you are asked to laugh, please pretend to laugh to the best of your ability for 20 seconds. When you are acting, please use approximately the same volume. Also, please do not refer to your dog by name, look directly at them, or initiate or reciprocate physical contact during the study."

The owners and the stranger-researcher stayed seated and moved their bodies naturally while they acted out the different emotional states, but they stayed seated. Each dog participated in four separate 20-second-long trials in which (1) the owner cried, (2) the stranger-researcher cried, (3) the owner laughed, and (4) the stranger-researcher laughed.

The order of these trials was counterbalanced across dogs, meaning that each dog completed the four trials in a randomized order. Before the trials began (baseline), in between each trial, and at the end of the fourth trial, the stranger-researcher and the owner had a light-hearted conversation for 2 minutes to reset the emotional experience for the dogs and the owners.

### Results and Discussion

Researchers focused on two different kinds of dog behaviors. Person-oriented dog behaviors included looking at a person (either the owner or the stranger-researcher), making contact with a person (touching the person in some way), approaching a person, and vocalizing at a person (barking, whining, etc.). Non-person-oriented dog behaviors included passive behavior (e.g., lying down or sitting), walking, solitary play, and general vocalizing (not directed at a person). The total number of person-oriented behaviors from the dogs for each trial behavior the owners and researcher-strangers acted out is presented in the table.

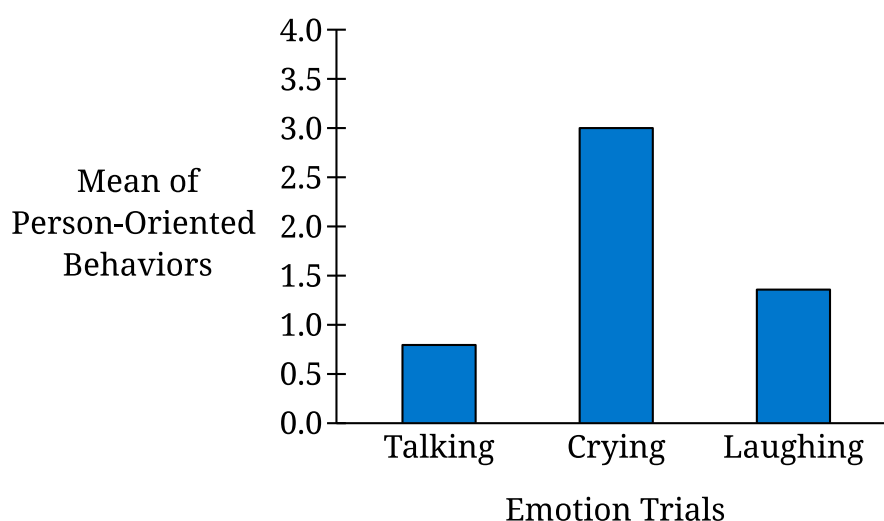
Total Number of Person-Oriented Dog Behaviors for Each Trial

| Behavior        | Dogs Looking | Dogs Making Contact | Dogs Approaching | Dogs Vocalizing | Total Person-Oriented Behaviors |
|-----------------|--------------|---------------------|------------------|-----------------|---------------------------------|
| Baseline        | 5            | 3                   | 2                | 2               | 12                              |
| Owner crying    | 20           | 15                  | 6                | 1               | 42                              |
| Owner laughing  | 11           | 2                   | 2                | 0               | 15                              |
| Stranger crying | 24           | 11                  | 8                | 3               | 46                              |

| Behavior          | Dogs Looking | Dogs Making Contact | Dogs Approaching | Dogs Vocalizing | Total Person-Oriented Behaviors |
|-------------------|--------------|---------------------|------------------|-----------------|---------------------------------|
| Stranger laughing | 11           | 7                   | 2                | 0               | 20                              |
| Totals            | 71           | 38                  | 20               | 6               | 135                             |

The graph displays the means for the number of person-oriented behaviors for the three types of emotions. The results are statistically significant ( $p < 0.0011^1$ ):

**Mean of Person-Oriented Behaviors for Emotion Trials**



The results show that the crying trial elicited significantly more person-oriented behaviors than the laughing and talking trials. The mean of person-oriented behaviors when the owner and stranger-researcher were crying significantly differed from the means for laughing and talking, but the means for laughing and talking did not significantly differ from each other. Importantly, dogs primarily engaged with the individual who was crying, regardless of whether they were the owner or the stranger-researcher. In the owner-crying trial, dogs demonstrated person-oriented behaviors 75% of the time, and in the stranger-researcher-crying trial, dogs demonstrated the person-oriented behaviors 73% of the time.

Meyers-Manor, J. E., & Botten, M. L. (2020). A shoulder to cry on: Heart rate variability and empathetic behavioral responses to crying and laughing in dogs. *Canadian Journal of Experimental Psychology / Revue canadienne de psychologie expérimentale*, 74(3), 235–243.

**1:** p values indicate statistical significance. A p value of less than 0.05 is generally considered significant and increases the likelihood that the difference in means is due to the procedures of the study.

# 5 Stress, health, and how the body pays – Part 1

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English                | 中文     | Write it 3 times (English) |
|------------------------|--------|----------------------------|
| Stress                 | 压力     | _____                      |
| cortisol               | 皮质醇    | _____                      |
| appraisal              | 评估     | _____                      |
| Problem-focused coping | 问题取向应对 | _____                      |
| emotion-focused coping | 情绪取向应对 | _____                      |

## Recall

- You have felt exhausted after a week of deadlines even without physical work.
- You know some people stay calm under pressure and others do not.
- You have noticed that people get ill after a stressful period, not during it.

## New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

### ■ 1 The stress response

**Stress** 压力 is the body's response to a demand it appraises as taxing. The sympathetic system of Unit 1 raises heart rate and releases **cortisol** 皮质醇; useful over minutes, costly over months.

*Worked example.* The same response that helps in an emergency damages health when it never switches off.

## ■ 2 Appraisal

Whether an event is stressful depends on **appraisal** 评估 - how the person judges the demand against their resources. The same exam is a threat to one student and a challenge to another.

*Worked example.* Two students face the same paper; the one who believes they can cope shows a smaller stress response.

## ■ 3 Coping

**Problem-focused coping** 问题取向应对 acts on the situation; **emotion-focused coping** 情绪取向应对 acts on the reaction. Neither is better in general - the first suits a controllable problem and the second an uncontrollable one.

*Worked example.* Revising harder is problem-focused; that is useless for a delayed flight, where managing your own frustration is the only option available.

**Watch out:** “Stress” is not the event. It is the response to an event the person has appraised in a particular way, which is why the same event stresses one person and not another.

## Practice

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2.1 Define stress. [2]

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2.2 Name the hormone released during a prolonged stress response. [1]

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2.3 Explain why a response useful in an emergency damages health when prolonged. [2]

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2.4 Define appraisal. [1]

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2.5 Distinguish problem-focused from emotion-focused coping. [2]

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**2.6** State which form of coping suits an uncontrollable situation and why.

[2]

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## 5 Disorder and treatment: describing and helping – Part 2

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

### Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English            | 中文     | Write it 3 times (English) |
|--------------------|--------|----------------------------|
| distress           | 痛苦     | _____                      |
| impairment         | 功能损害   | _____                      |
| Psychotherapy      | 心理治疗   | _____                      |
| biomedical therapy | 生物医学治疗 | _____                      |
| stigma             | 污名     | _____                      |

### Recall

- You know people use words like “depressed” loosely and clinically.
- You have heard that talking therapies and medicines both help.
- You know a diagnosis can help a person and can also follow them around.

### New ideas

Read these first. Each idea has a short worked example. Then do the Practice below.

#### ■ 1 What makes something a disorder

A pattern is treated as a disorder when it causes **distress** 痛苦 or **impairment** 功能损害 - it interferes with the person's life. Unusualness alone is not enough, and neither is being upsetting to other people.

*Worked example.* A person with an unusual hobby is not disordered; a person who cannot leave the house to work is impaired.

## ■ 2 Two families of treatment

**Psychotherapy** 心理治疗 works through a relationship and a method of talking; **biomedical therapy** 生物医学治疗 works on the body, usually with medication. For many conditions the combination outperforms either alone.

*Worked example.* A patient given medication and therapy together often improves more than one given either separately.

## ■ 3 Why diagnosis is double-edged

A diagnosis gives access to treatment and makes a private difficulty legible. It also carries **stigma** 污名 and can become the way a person is seen. Both are consequences of the same label.

*Worked example.* A student diagnosed with an anxiety disorder gains support at school and is also treated differently by classmates who hear about it.

**Watch out:** “Unusual” is not “disordered”. The criterion the CED emphasises is distress or impairment, not statistical rarity.

## Practice

2.1 State the two criteria by which a pattern is treated as a disorder. [2]

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2.2 Explain why being unusual is not sufficient. [2]

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2.3 Distinguish psychotherapy from biomedical therapy. [2]

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2.4 State what the evidence suggests about combining them. [1]

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2.5 State one benefit and one cost of receiving a diagnosis. [2]

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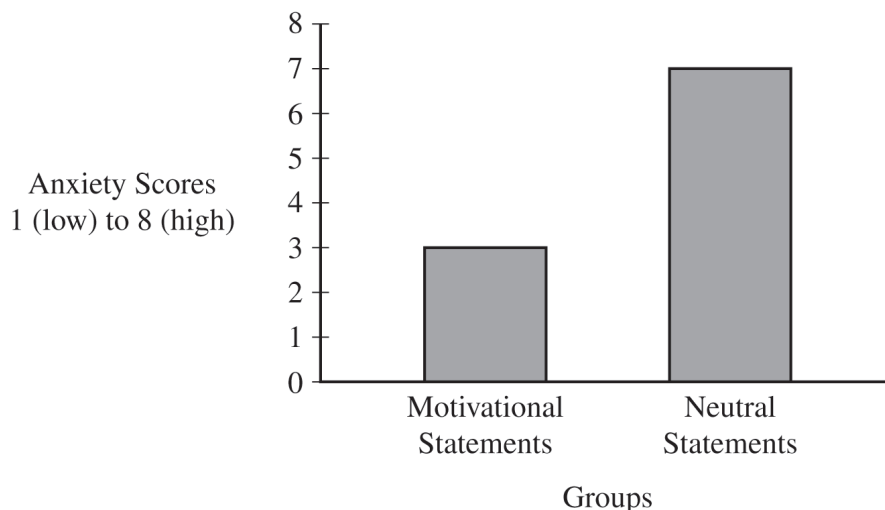
**2.6** Explain why both follow from the same label.

[2]

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2. Dr. Dawson is a psychologist who believes that students who read motivational statements before a test will experience lower levels of anxiety as compared with students who read neutral statements. To examine this belief, he conducted a study. In the study, he randomly assigned half of the participants to read motivational statements and the other half to read neutral statements. Immediately after reading the statements, all of the students completed a survey about their current level of anxiety (1 = low; 8 = high) and then took the test. Dr. Dawson found statistically significant results that are depicted in the graph.



Part A

- State a valid operational definition of the dependent variable in this study.
- Identify the control group in this study.
- Explain why the study would be considered an experiment.
- Explain how the results of the study do or do not support Dr. Dawson's hypothesis.

Part B

The test Dr. Dawson gave was a vocabulary test. Explain how the following terms might relate to the students who performed poorly on the test in this study.

- External locus of control
- Stage one of Selye's general adaptation syndrome
- Crystallized intelligence

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**Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.**

**STOP**

**END OF EXAM**