HOLIDAY HOMEWORK 假期作业

AP Psychology

Exercise sheets, topic by topic.

每个单元：练习卷。

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

Contents 目录

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.

■

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

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

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

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

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

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

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

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.

■

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

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

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

2.3 Define an agonist and an antagonist. [2]

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

2.5 Define tolerance. [1]

2.6 Explain why tolerance is a biological finding rather than a moral one. [2]

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

2.1 Name the three stages of memory. [3]

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

2.3 Define a retrieval cue. [1]

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

2.5 Distinguish proactive from retroactive interference. [2]

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

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.

■

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

2.1 Define a heuristic. [1]

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

2.3 Define framing. [1]

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

2.5 Define confirmation bias. [1]

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

2.7 Distinguish a heuristic from a bias. [1]

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]

2.2 Define operant conditioning. [2]

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

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

2.5 Define observational learning. [1]

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

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.

■

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]

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

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]

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]

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.

■

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]

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

2.1 Define stress. [2]

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

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

2.4 Define appraisal. [1]

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

2.6 State which form of coping suits an uncontrollable situation and why. [2]

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]

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

2.3 Distinguish psychotherapy from biomedical therapy. [2]

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

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

2.6 Explain why both follow from the same label. [2]