Development and Learning

AP Psychology ▪ Unit 3

AP Psychology

What we will cover

1 Studying Development

Studying Development

- Is change **continuous** 连续的 (gradual and smooth) or **discontinuous** 不连续的 (in stages)?
- Is a trait **stable** 稳定的 across life, or does it change?

2 Physical Development

Physical Development

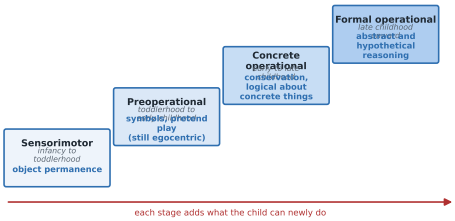
Development before birth can be disrupted by **teratogens** 致畸物 (harmful agents such as alcohol), maternal illness, genetic mutations, and hormonal or environmental factors.

> The **visual cliff** 视崖 experiment shows that infants perceive depth early.

3 Gender and Sexual Orientation

4 Cognitive Development

What becomes possible, and what is still missing



Piaget's four stages: each one names what becomes possible, and what is still missing.

Cognitive Development

Adult cognition changes too, and here the fluid/crystallised split from Unit 2 returns: reasoning speed declines while accumulated knowledge does not. **Dementia** 痴呆 is a decline beyond normal ageing.

- **Sensorimotor stage** 感知运动阶段 (infancy to toddlerhood): the child learns through senses and action, and develops **object permanence** 客体永久性 – knowing an object still exists when hidden.
- **Preoperational stage** 前运算阶段 (toddlerhood to early childhood): the child uses symbols and pretend play but shows **egocentrism** 自我中心 (difficulty taking another view) and lacks **conservation** 守恒 (knowing quantity stays the same when shape changes).
- **Concrete operational stage** 具体运算阶段 (early to late childhood): the child reasons logically about concrete things and gains conservation.
- **Formal operational stage** 形式运算阶段 (late childhood onward): abstract and

5 Language Development

Language Development

Children generalise rules before they master exceptions, which produces **overgeneralization** 过度规则化 – saying "goed" instead of "went".

> This is evidence that they are learning rules, not just copying.

6 Social and Emotional Development

Social and Emotional Development

Research identifies **parenting styles** 教养方式: **authoritarian** 专制型 (high demands, low warmth), **authoritative** 权威型 (high demands, high warmth), and **permissive** 放任型 (low demands, high warmth).

> Peer relationships develop through **parallel play** 平行游戏 and **pretend play** 假装游戏 in childhood, and adolescents rely on peers more as they age.

Attachment styles

STYLE	ON SEPARATION	AT REUNION — THE TELL
SECURE	distressed	seeks contact, is comforted, returns to exploring
ANXIOUS (resistant)	highly distressed	seeks contact *and* resists it; not comforted
AVOIDANT	little distress shown	ignores or avoids the caregiver
DISORGANISED	variable	no consistent strategy — approach and fear together

- An **unconditioned stimulus (UCS)** 无条件刺激 naturally produces an **unconditioned response (UCR)** 无条件反应 - food causes salivation.
- A **neutral stimulus** 中性刺激 paired with the UCS becomes a **conditioned stimulus (CS)** 条件刺激, producing a conditioned response...
- **Acquisition** 习得 depends on the order and timing of the pairing.

7 Classical Conditioning

Classical Conditioning

The **behavioral perspective** 行为主义视角 explains behaviour through learning rather than thought.

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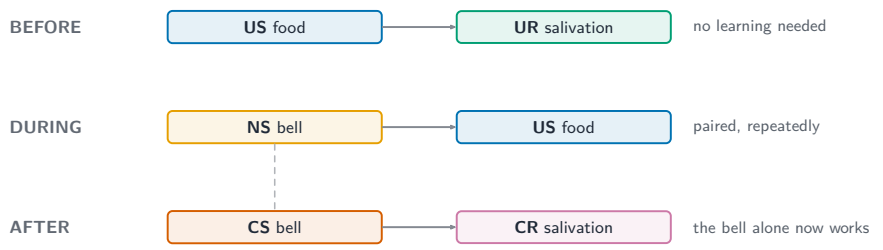
- A **neutral stimulus** 中性刺激 paired with the UCS becomes a **conditioned stimulus (CS)** 条件刺激, producing a **conditioned response (CR)** 条件反应.
- **Acquisition** 习得 depends on the order and timing of the pairing.
- **Extinction** 消退 occurs when the CS is no longer paired with the UCS; **spontaneous recovery** 自发恢复 is the reappearance of an extinguished CR.
- **Generalization** 泛化 is responding to similar stimuli; **stimulus discrimination** 刺激辨别 is responding only to the exact CS.

Classical Conditioning, continued

Emotional responses can be conditioned, and **taste aversion** 味觉厌恶 shows that some associations are learned in a single trial because they aided survival.

Habituation 习惯化 is a diminished response to a repeated stimulus.

Conditioning, in three stages



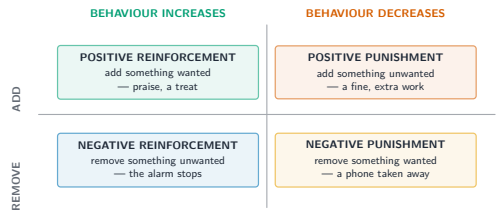
NS and CS are the same stimulus at different times, and so are UR and CR. Identify the US first — everything else follows from it

8 Operant Conditioning

Operant Conditioning

- **Reinforcement** 强化 increases a behaviour; **punishment** 惩罚 decreases it.
- **Positive** 正 means something is added; **negative** 负 means something is removed. So **negative reinforcement** 负强化 increases behaviour by removing something unpleasant – it is not punishment.
- A **primary reinforcer** 原级强化物 satisfies a biological need; a **secondary reinforcer** 次级强化物 (money) is learned.
- **Shaping** 塑造 rewards **successive approximations** 逐步接近 of a target behaviour.

The four operant procedures



Reinforcement 强化 increases a behaviour; **punishment** 惩罚 decreases it. Positive adds; negative removes.

9 Observational and Cognitive Learning

Observational and Cognitive Learning

Not all learning needs direct experience.

Social learning theory 社会学习理论 shows that behaviour can be learned by **observation** 观察 and **modeling** 榜样示范 – the basis of the Bobo doll findings on imitated aggression.

Exam tips

- Negative reinforcement increases behaviour. If you can say what was *removed*, and the behaviour went *up*, it is not punishment.
- Match a Piaget stage to its achievement – object permanence, conservation, abstract reasoning – rather than to an age.
- Classical conditioning links two stimuli and produces an involuntary response; operant conditioning links behaviour to consequence.
- Variable-ratio schedules resist extinction best. Use it whenever a question describes gambling-like persistence.
- Keep critical period for the narrow window and sensitive period for the softer one.
- On scenario questions, name the term and then point at the detail in the scenario that proves it. The detail is what earns the mark.

10 Recap

Unit 3 – key takeaways

1 Piaget

name the achievement, not just the age

2 Classical vs operant

two stimuli vs behaviour–consequence

3 Reinforcement

negative reinforcement *increases* behaviour

4 Schedules

variable-ratio resists extinction (gambling)

Check yourself

1. Seatbelt beep stops when you buckle: reinforcement or punishment?
2. Object permanence: which Piaget stage?
3. Gambling persistence: which schedule?
4. Classical or operant: salivating to a bell?

Answers: negative reinforcement ▪ sensorimotor ▪ variable-ratio ▪ classical