# AP Psychology

**Revision Sheet · 考前速记**

*Learn these by heart before the exam.* 考试前把这些内容背熟。

## Research Methods and Statistics

*Only a true experiment shows cause. It needs random assignment, an independent variable the researcher manipulates, and a dependent variable that is measured.*

**Confounding variable** 混淆变量: an uncontrolled difference between groups that could explain the result instead of the IV

*Non-experimental designs: correlational (measures a relationship, never cause), naturalistic observation, case study, survey, meta-analysis.*

$-1 \le r \le +1$ the sign gives direction, the size gives strength; $r = 0$ means no linear relationship 相关系数

*Random SAMPLING makes a sample representative. Random ASSIGNMENT makes groups equivalent. They do different jobs; do not swap them.*

*Controls against bias: placebo, single-blind, double-blind, operational definitions, counterbalancing.*

**Statistical significance** 统计显著性: the result is unlikely to be chance alone; a small p-value, conventionally below 0.05

*Distributions: normal (mean = median = mode), positively skewed (tail right, mean pulled up), negatively skewed (tail left). Mean is dragged by outliers; median is not.*

*Ethics: informed consent, protection from harm, confidentiality, deception only when justified, debriefing afterwards, IRB approval.*

## Biological Bases of Behavior

*Neuron: dendrites receive, soma integrates, axon carries the action potential, terminals release neurotransmitter across the synapse. Myelin speeds conduction.*

**All-or-none law** 全或无定律: a neuron fires at full strength or not at all once threshold is reached; intensity is coded by rate, not size

*Key neurotransmitters: dopamine (reward, movement), serotonin (mood, sleep), acetylcholine (muscle, memory), GABA (main inhibitory), glutamate (main excitatory), endorphins (pain relief), norepinephrine (arousal).*

*Agonists mimic or increase a neurotransmitter; antagonists block it. Reuptake inhibitors leave more in the synapse.*

*Brain: hindbrain (medulla breathing, cerebellum balance and procedural memory), limbic system (amygdala fear, hippocampus new memories, hypothalamus drives), cortex lobes (frontal planning, parietal touch, temporal hearing, occipital vision).*

*Broca's area damage impairs SPEAKING; Wernicke's area damage impairs UNDERSTANDING. Split-brain work shows lateralisation.*

*Nervous system: central versus peripheral; within peripheral, somatic (voluntary) versus autonomic. Sympathetic arouses, parasympathetic calms.*

*Sleep cycles through NREM stages into REM about every 90 minutes. REM carries vivid dreaming with muscle paralysis; deep NREM consolidates memory.*

**Sensory adaptation** 感觉适应: reduced sensitivity to an unchanging stimulus; different from habituation, which is a learned drop in attention

## Cognition, Memory and Intelligence

*Bottom-up processing builds from the raw sensation; top-down processing uses expectation and schema. Perceptual set and context effects are top-down.*

*Gestalt grouping: figure-ground, proximity, similarity, closure, continuity. Depth cues: binocular (retinal disparity, convergence) versus monocular (relative size, interposition, texture gradient, linear perspective).*

*Memory model: encoding then storage then retrieval, across sensory, short-term or working, and long-term memory.*

**Working memory** 工作记忆: Baddeley's active store: phonological loop, visuospatial sketchpad, central executive, episodic buffer

*Long-term memory splits into explicit or declarative (episodic, semantic) and implicit (procedural, conditioned responses).*

*Better encoding: chunking, mnemonics, elaborative rehearsal, spacing effect, self-reference effect. Massed cramming loses to distributed practice.*

*Forgetting: encoding failure, decay, proactive interference (old blocks new), retroactive interference (new blocks old), retrieval failure, motivated forgetting.*

*Serial position effect gives primacy (rehearsed into LTM) plus recency (still in STM). Loss of the middle is the classic curve.*

*Thinking errors: confirmation bias, availability heuristic, representativeness heuristic, anchoring, framing, functional fixedness, hindsight bias, overconfidence.*

*Intelligence tests must be standardised, reliable (consistent) and valid (measures what it claims). Flynn effect is the generational rise in scores; stereotype threat depresses performance.*



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## Development and Learning

*Piaget: sensorimotor (object permanence), preoperational (egocentrism, no conservation), concrete operational (conservation, logic on real things), formal operational (abstract reasoning).*

*Vygotsky stresses the social route: the zone of proximal development plus scaffolding by a more skilled partner.*

*Erikson's crises run trust versus mistrust through to integrity versus despair; adolescence is identity versus role confusion.*

*Attachment (Ainsworth Strange Situation): secure, avoidant, anxious or ambivalent, disorganised. Harlow's monkeys showed contact comfort beats feeding.*

*Parenting styles: authoritative (warm and firm, best outcomes), authoritarian, permissive, neglectful.*

**Classical conditioning** 经典条件作用: a neutral stimulus paired with a UCS becomes a CS producing a CR; Pavlov, and Watson's Little Albert

*Classical terms: acquisition, extinction, spontaneous recovery, generalisation, discrimination, higher-order conditioning, taste aversion (one trial, biologically prepared).*

**Operant conditioning** 操作性条件作用: behaviour is shaped by its consequence; Thorndike's law of effect, Skinner's boxes

*Reinforcement INCREASES behaviour, punishment DECREASES it; positive means add, negative means remove. Negative reinforcement is not punishment.*

*Schedules: variable-ratio resists extinction best; fixed-interval gives the scalloped pattern. Shaping reinforces successive approximations.*

*Observational learning (Bandura's Bobo doll) needs attention, retention, reproduction and motivation. Latent learning shows learning without performance.*

## Social Psychology and Personality

**Fundamental attribution error** 基本归因错误: over-weighting disposition and under-weighting situation when explaining ANOTHER person's behaviour

*Self-serving bias credits success to ourselves and failure to circumstances. Actor-observer bias flips attribution between self and other.*

*Attitude change: cognitive dissonance (Festinger) drives attitude to follow behaviour, especially with low external justification. Foot-in-the-door and central versus peripheral routes to persuasion.*

*Conformity (Asch lines) rises with group size, unanimity and ambiguity. Obedience (Milgram) rises with authority, proximity of the authority and distance from the victim.*

*Group effects: social facilitation (easy tasks improve), social loafing, deindividuation, group polarisation, groupthink, bystander effect through diffusion of responsibility.*

*Personality theories: psychodynamic (unconscious, defence mechanisms), humanistic (Rogers' unconditional positive regard, Maslow's hierarchy), trait (Big Five: openness, conscientiousness, extraversion, agreeableness, neuroticism), social-cognitive (Bandura's reciprocal determinism, self-efficacy).*

*Locus of control: internal means outcomes feel self-determined; external means they feel driven by luck or others.*

## Mental and Physical Health

*Disorders are classified by the DSM. The bar is distress, dysfunction, deviance and danger, not unusual behaviour alone.*

**Biopsychosocial model** 生物心理社会模型: biological, psychological and sociocultural causes act together; the default explanation frame in this unit

*Anxiety-related: generalised anxiety, panic, specific phobia, agoraphobia; obsessive-compulsive and post-traumatic stress are their own categories.*

*Depressive and bipolar disorders; schizophrenia with positive symptoms (hallucinations, delusions, disorganised speech) and negative symptoms (flat affect, avolition).*

*Therapies match theory: psychodynamic (insight), humanistic (client-centred), behavioural (exposure, systematic desensitisation, token economy), cognitive and CBT (restructure thoughts), biomedical (drugs, ECT).*

*Stress: Selye's general adaptation syndrome runs alarm, resistance, exhaustion. Problem-focused coping targets the stressor; emotion-focused targets the feeling.*

## Exam technique

*Answer the AAQ and EBQ in full sentences and in order. Each part is scored separately, so label your parts and never bundle two answers into one paragraph.*

*APPLY means link the concept to the scenario's own details by name. Defining the term alone earns nothing.*

*For the EBQ, take a clear position first, then use the sources by number as evidence and explain HOW each supports the claim.*

*Never write that a correlational study shows a cause. Say it shows a relationship, then name a possible third variable.*

*Use the technical term, not the everyday word: negative reinforcement, not punishment; encoding*

*failure, not forgetting.*