

Course Companion

AP Psychology

Every topic handout in one volume

exercises lol

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Biological Bases of Behavior

AP Psychology

Nature and Nurture

Psychology studies **behavior** (what a person does) and **mental processes** (what a person thinks and feels). Unit 1 asks where these come from in the body.

Every trait grows from two sources working together. **Heredity** is what a person inherits from their parents. **Environment** is everything that happens around them. Neither one acts alone.

- **Nature and nurture** always interact. Height is inherited, but poor nutrition lowers it.
- The **evolutionary perspective** explains behavior that helped ancestors survive and reproduce. Fear of snakes is easy to learn because it once kept people alive.
- **Twin and adoption studies** separate the two sources. If identical twins raised apart are still similar, heredity matters for that trait.

Note: the exam does not ask about genes, DNA, or chromosomes. It asks how heredity and environment together shape behavior.

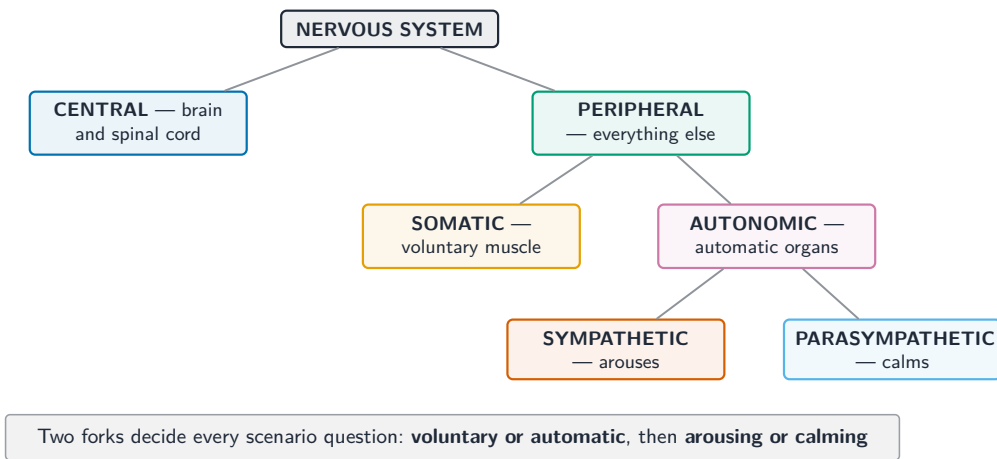
The Nervous System

The **nervous system** carries information around the body. It has two main parts.

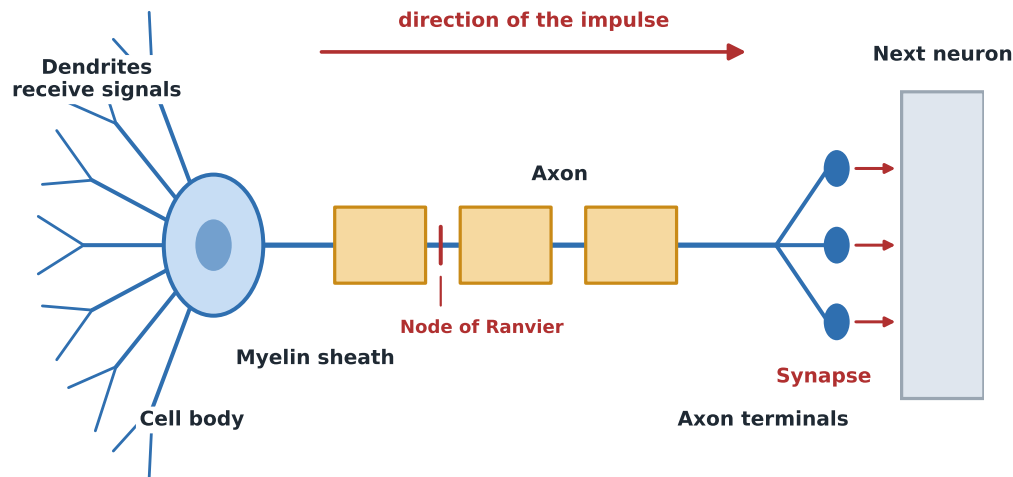
The **central nervous system (CNS)** is the brain and the **spinal cord**. It interacts with every process in the body.

The **peripheral nervous system (PNS)** relays messages between the CNS and the rest of the body. It divides again:

- The **somatic nervous system** controls **voluntary** movement, such as raising your hand.
- The **autonomic nervous system** controls **involuntary** processes, such as heartbeat and digestion. It has two branches that work against each other: the **sympathetic nervous system** prepares the body for action (the “fight or flight” response), and the **parasympathetic nervous system** calms the body down afterwards.



Neurons and How They Fire



A neuron receives at the dendrites, fires along the axon, and passes the message across the synapse

Two kinds of cell do the work. **Neurons** transmit information. **Glial cells** provide structure, insulation, communication, and waste transport. Together they are the building blocks of all behavior and mental processes.

A neuron has **dendrites** that receive signals, a **cell body**, and an **axon** that carries the signal away. Many axons are wrapped in a **myelin sheath**

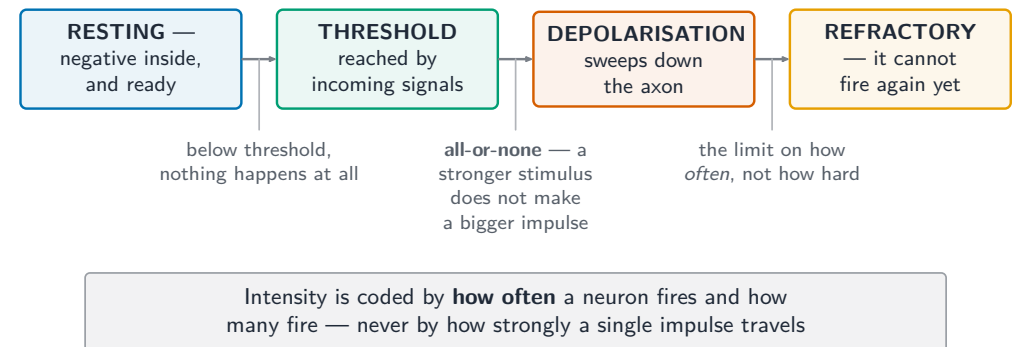
, which speeds the signal up.

Neural transmission follows a set order:

- At rest the neuron holds a **resting potential**, ready but not firing.
- If incoming signals pass the **threshold**, the neuron **depolarizes** and fires.
- Firing follows the **all-or-none principle**: the neuron fires at full strength or not at all. A stronger stimulus makes it fire more often, not harder.
- Straight after firing there is a **refractory period** when the neuron cannot fire again.
- At the **synapse**, the gap between neurons, chemicals cross to the next cell. Leftover chemicals are taken back in a process called **reuptake**.

Damage to this process can cause disorders such as **multiple sclerosis** or **myasthenia gravis**.

In the spinal cord, the **reflex arc** shows the system working as a unit. **Sensory neurons** carry information in, **interneurons** connect inside the cord, and **motor neurons** carry the command out - all before the brain is involved.



Neurotransmitters, Hormones, and Drugs

Neurotransmitters are the chemicals that cross the synapse. Each has its own job, and the effect can depend on where in the nervous system it acts. A message is either **excitatory** (making firing more likely) or **inhibitory** (making firing less likely).

Only these are examinable: **dopamine** (reward and movement), **serotonin** (mood and sleep), **norepinephrine** (alertness), **glutamate** (the main excitatory transmitter), **GABA** γ - (the main inhibitory)

transmitter), **endorphins** (pain relief), **substance P** (pain signalling), and **acetylcholine** (muscle movement and memory).

Hormones act outside the nervous system but do a similar job, travelling more slowly through the blood. Again only five are examinable: **adrenaline**, **leptin** (reduces hunger), **ghrelin** (increases hunger), **melatonin** (sleep), and **oxytocin** (bonding).

Psychoactive drugs change behavior by acting on neurotransmission in three ways:

- An **agonist** encourages neural firing.
- An **antagonist** discourages it.
- A **reuptake inhibitor** blocks reabsorption, leaving more transmitter in the synapse.

Drug categories: **stimulants** (caffeine, cocaine) increase neural activity; **depressants** (alcohol) decrease it; **hallucinogens** (marijuana) distort perception; **opioids** (heroin) relieve pain. Repeated use can lead to **tolerance**, where more is needed for the same effect, and to **addiction**, with **withdrawal** symptoms when use stops.

The Brain

The brain is studied from the bottom up, because the lower structures handle the most basic jobs.

- The **brain stem**, including the **medulla**, controls breathing and heart rate.
- The **reticular activating system** controls alertness and arousal.
- The **cerebellum** controls coordination, balance, and some **procedural learning**.
- The **limbic system** sits inside the cerebral cortex and includes the **thalamus** (a relay station for the senses), the **hypothalamus** (hunger, thirst, temperature), the **pituitary gland**, the **hippocampus** (forming new memories), and the **amygdala** (fear and emotion).

The **cerebral cortex** is divided into two **hemispheres** and four lobes: the **occipital lobes** process vision at the rear; the **temporal lobes** process hearing and language at the sides; the **parietal lobes** hold the **somatosensory cortex** for touch; and the **frontal lobes** handle higher-order thinking and **executive function**.

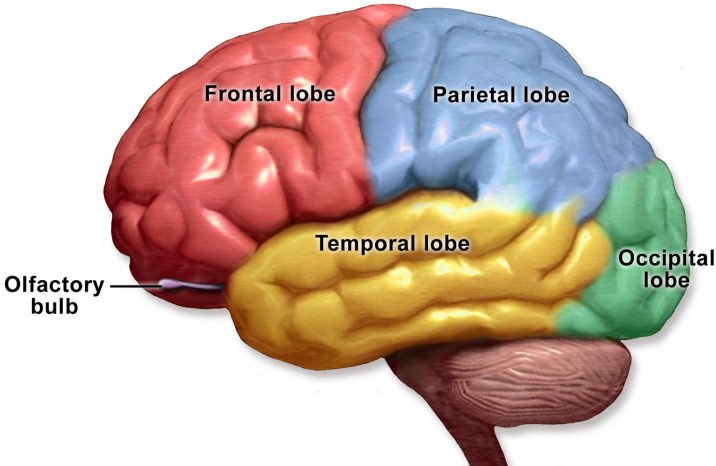
Language sits mainly in the left hemisphere: **Broca’s area** for speech production and **Wernicke’s area** for comprehension.

Split-brain research, done on patients whose **corpus callosum** was cut to treat severe epilepsy, shows the two hemispheres can work independently. Researchers present information to one **visual field** at a time, because each field is processed by the opposite hemisphere.

Brain plasticity is the brain’s ability to rewire itself and form new connections, which supports recovery after damage. Research methods include **EEG** and **fMRI** scans, case studies, and **lesioning**.

REGION	WHAT IT DOES	DAMAGE LOOKS LIKE
brainstem and medulla	breathing, heart rate, arousal	life-threatening — these are not optional
cerebellum	balance, and smooth learned movement	clumsy, uncoordinated movement
hippocampus	forming new long-term memories	old memories intact, no new ones
amygdala	fear, and emotional salience	blunted fear, poor threat learning
frontal lobe	planning, judgement, inhibition	impulsivity and personality change

Scenario questions arrive as the **third** column. Learn the table in that direction and the retrieval matches the question



Consciousness and Sleep

Consciousness is awareness of internal and external events, and it varies in level.

The sleep/wake cycle is a **circadian rhythm** of about 24 hours. **Jet lag** and shift work disrupt it.

Sleep stages are identified by **EEG** patterns. **NREM sleep** covers stages 1 to 3; **hypnagogic sensations** occur as you fall asleep. **REM sleep** is called **paradoxical sleep** because the brain looks awake while the body is most relaxed, and most dreaming happens here.

Two examinable theories explain dreams: **activation-synthesis theory** - (the brain interprets random activity) and **consolidation theory** (dreams reflect memory processing). Sleep itself is explained by **memory consolidation** and **restoration** theories.

Note: the psychoanalytic theory of dreams is outside the exam's scope.

Sleep disorders disrupt waking behavior and health: **insomnia**, **narcolepsy**, **sleep apnea**, **somnambulism** (sleepwalking), and **REM sleep behavior disorder**.



Sensation

Sensation is detecting information from the environment and **transducing** it into neural signals the brain can use. Detection needs a certain **absolute threshold**.

- The **just-noticeable difference** is the smallest change a person can detect.
- **Sensory adaptation** is reduced sensitivity to an unchanging stimulus - you stop noticing a smell.
- **Sensory interaction** means the senses work together. **Synesthesia** is when one sense triggers another.

Vision. Light is focused onto the **retina** by the **lens** changing shape, a process called **visual accommodation**; when this fails the result is **nearsightedness** or **farsightedness**. **Rods** lie in the periphery and detect shape and movement in low light. **Cones** sit in the **fovea** and detect colour and detail. Colour vision needs two theories: **trichromatic theory** (blue, green and red cones) and **opponent-process theory**, which explains **afterimages**. Damage to the occipital lobes can cause **prosopagnosia**, or face blindness.

Hearing. Sound is air movement; wavelength gives **pitch** and amplitude gives **loudness**. Pitch perception is explained by **place theory**, **volley theory**, and **frequency theory**. **Sound localization** tells us where a sound comes from. Hearing loss may be **conduction deafness** or **sensorineural deafness**.

The chemical senses. **Olfaction** is the only sense not relayed first through the thalamus. **Gustation** covers sweet, sour, salty, bitter, **umami**, and **oleogustus**. The two interact: without smell, taste is muted.

Touch, pain, and body position. Skin receptors transduce touch; “hot” comes from warm and cold receptors firing together. Pain is processed in body and brain, and **gate control theory** explains why attention changes how much it hurts; **phantom limb** sensations show the brain's role. The **vestibular sense** controls balance through the **semicircular canals**, and **kinesthesia** is the sense of body movement.

Worked example (a real AP exam question). The 2025 Article Analysis Question asked students to “Identify the research method used in the study” and then to “Explain the extent to which the research findings may or may not be generalizable using specific and relevant evidence from the study.” A full-mark answer to the second part names the limitation **and** ties it to evidence: “The findings may not generalize widely because participants were undergraduate students at one university, so the sample was not representative of the general population.” Notice the shape: **Explain** needs a claim plus the evidence behind it. Naming the method alone answers part A, not part E.

Exam tips

- Learn only the listed **neurotransmitters** and **hormones**; the exam will not ask about others, and the endocrine glands are out of scope apart from the pituitary.
- Keep **sensation** separate from perception: sensation is detecting and transducing, perception is interpreting (Unit 2).
- The **all-or-none principle** means intensity is coded by how *often* a neuron fires, never by how strongly.
- Match structure to job before you write: hippocampus forms memories, amygdala handles fear, cerebellum coordinates movement.
- **Sympathetic** arouses, **parasympathetic** calms. If a question describes a racing heart, name the sympathetic branch.
- Say what a scan can and cannot show. **fMRI** shows activity over time; **EEG** shows electrical patterns and identifies sleep stages.

Cognition

AP Psychology

Perception

Unit 1 ended with **sensation**, the detection of a stimulus. **Perception** is what the brain does next: it organises and interprets that information. The same signal can be perceived in more than one way.

Two directions of processing work together:

- **Bottom-up processing** starts from the raw sensory information and builds upwards.
- **Top-down processing** starts from what you already expect and know.

Internal filters shape perception. A **schema** is a mental framework built from past experience. A **perceptual set** is a readiness to see something in a particular way. External filters matter too: **context** and cultural expectations change what people report seeing.

Gestalt psychology described how the brain groups parts into wholes: **closure** (filling in gaps), **figure and ground** (separating an object from its background), **proximity** (grouping things that are close), and **similarity** (grouping things that look alike).

Attention sits between sensation and perception. It is limited, so some information is lost:

- **Selective attention** focuses on one input. The **cocktail party effect** is hearing your own name across a noisy room.
- **Inattentional blindness** is failing to see something visible because attention was elsewhere; **change blindness** is failing to notice that something has changed.

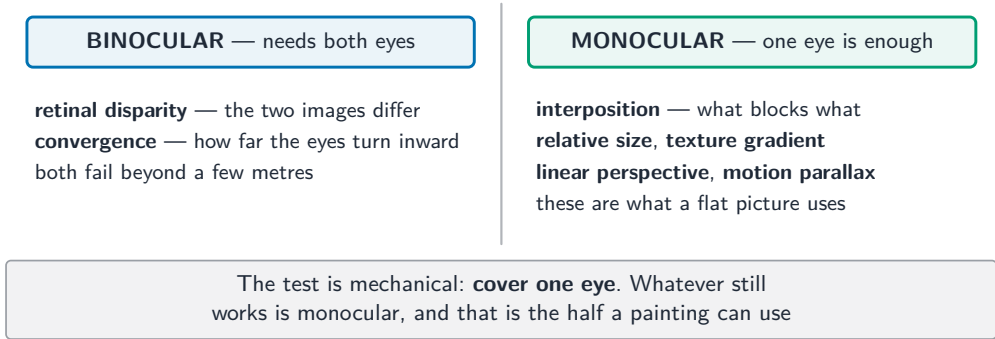
Depth, Constancy, and Movement

To perceive a three-dimensional world from a flat retinal image, the brain uses **depth cues**.

Binocular cues need both eyes. **Retinal disparity** is the small difference between the two images; the greater the difference, the closer the object. **Convergence** is the inward turn of the eyes for near objects.

Monocular cues work with one eye: **relative clarity**, **relative size**, **texture gradient**, **linear perspective**, and **interposition** (a nearer object blocks a further one).

Perceptual constancy keeps an object looking the same even when its retinal image changes - a door stays rectangular as it swings open. The brain can also perceive **apparent movement** when nothing actually moves, which is why a series of still frames looks like a film.



Thinking and Problem-Solving

Concepts are the basis of thought, and a **prototype** is the best example of a concept. People build and change schemas through **assimilation** (fitting new information into an existing schema) and **accommodation** (changing the schema to fit new information).

Two ways to solve a problem:

- An **algorithm** tries every possible solution and is guaranteed to work, but is slow.
- A **heuristic** is a mental shortcut. It is fast but can lead to error - the **representativeness heuristic** judges by how well something matches a prototype, and the **availability heuristic** judges by how easily examples come to mind.

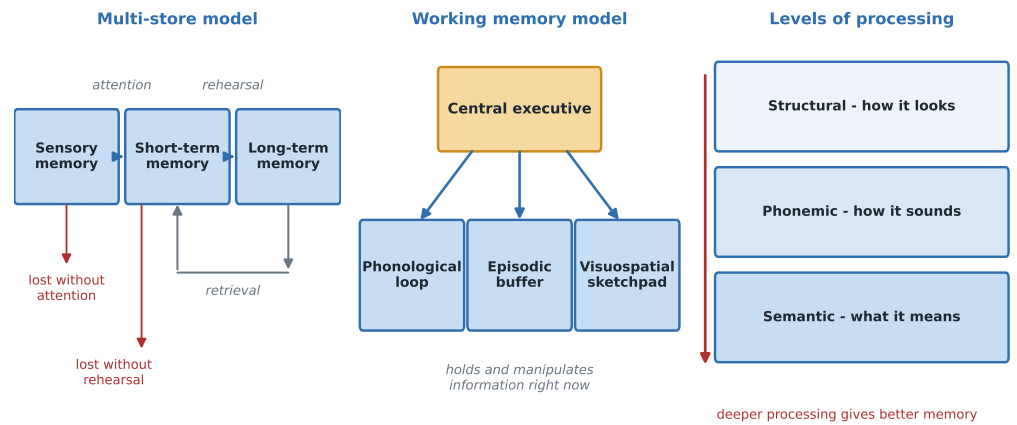
Thinking can also get stuck. A **mental set** is the tendency to repeat a solution that worked before. **Functional fixedness** is seeing an object only in its usual use. The **gambler’s fallacy** (believing a run must end) and the **sunk-cost fallacy** (continuing because of what is already spent) both hinder good decisions.

Executive functions let people generate, organise, plan, and carry out

goals. **Creativity** involves **divergent thinking** (generating many ideas) rather than **convergent thinking** (narrowing to one answer).

THE SHORTCUT	WHAT IT SUBSTITUTES	SOUNDS LIKE
AVAILABILITY	how easily an example comes to mind, for how common it is	<i>“Plane crashes are everywhere — I saw two on the news.”</i>
REPRESENTATIVENESS	how typical it seems, for how likely it is	<i>“He is quiet and reads a lot, so he must be a librarian.”</i>
ANCHORING	the first number heard, for a considered estimate	<i>“It was listed at 900, so 700 is a bargain.”</i>
CONFIRMATION BIAS	evidence that agrees, for all the evidence	<i>“Everything I have read supports it.”</i>
Every one of them swaps a hard question for an easy one. Naming the swap is what identifies the heuristic in a scenario		

Memory Systems



The three examinable memory models: information flows through stores, is actively held in working memory, and is remembered better when processed deeply

Memory is divided by how information is processed.

Explicit memory can be described to others. It splits into **episodic memory** (personal events) and **semantic memory** (facts). **Implicit memory** is harder to describe, and includes **procedural memory** (skills such as riding a bike). **Prospective memory** is remembering to do something later.

Long-term potentiation is the biological basis: synaptic connections grow stronger with repeated use.

Three models are examinable:

- The **multi-store model** proposes **sensory memory** (including **iconic** and **echoic** stores), **short-term memory**, and **long-term memory**.
- The **working memory model** treats the middle stage as active, not a waiting room. It has a **phonological loop**, a **visuospatial sketchpad**, and a **central executive**.
- The **levels of processing model** says deeper processing gives better memory: **shallow** processing of appearance, then sound, then **deep** processing of meaning.

Encoding and Storing

Encoding gets information into memory, and how you encode changes how well you remember.

- **Mnemonic devices** such as the **method of loci** aid encoding.
- **Chunking** groups items into meaningful units, which raises how much short-term memory can hold.
- The **spacing effect** shows that spreading study over time beats **massed practice** (cramming).
- The **serial position effect** means items at the start (**primacy**) and end (**recency**) of a list are remembered best.

Storage differs by system. **Maintenance rehearsal** repeats information to hold it; **elaborative rehearsal** links it to what you already know and works better.

A few people show **highly superior autobiographical memory**, which suggests biological differences. Storage can also be impaired: **Alzheimer's disease** and **infantile amnesia** both limit what can be stored or recovered.

Retrieving and Forgetting

Retrieval takes two forms: **recall** (producing information without cues) and **recognition** (identifying it among options). Recognition is easier, which is why a multiple-choice question feels easier than an essay.

Retrieval improves with matching conditions. **Context-dependent memory** works better in the same place; **state-dependent memory** works better in the same physical state; **mood-congruent memory** recalls material matching your current mood. Practising retrieval helps too - the **testing effect** shows that testing yourself beats rereading.

Forgetting has several causes. The **forgetting curve** shows loss is fastest right after learning. **Encoding failure** means it never got in. **Interference** can be **proactive** (old learning blocks new) or **retroactive** (new blocks old). **Retrieval failure** includes the **tip-of-the-tongue phenomenon**.

Memory is also **reconstructive**, not a recording. The **misinformation effect** occurs when later information changes what a person remembers. **Source amnesia** is remembering the information but not where it came from.

Worked example (a real AP exam question). The 2025 Article Analysis Question presented a study in which participants read a summary containing 20%, 50% or 80% misleading sentences, then answered questions about a video. Correct responses fell from 74% (low misinformation) to 63% (high). One part asked students to “*Explain how at least one of the research findings supports or refutes the misinformation effect.*” A full-mark answer states the finding **and** connects it to the concept: “*Participants in the high misinformation condition answered 63% correctly compared with 74% in the low condition. Because exposure to more misleading detail lowered accuracy, the finding supports the misinformation effect, in which information received after an event changes the memory of it.*” Notice the shape: quote the data, then name the concept the data supports. A restated definition with no number does not answer **Explain**.

ENCODING FAILURE — it never got in, so it was never forgotten

STORAGE DECAY — the trace weakens over time

RETRIEVAL FAILURE — it is there, and the cue is missing

INTERFERENCE — another memory is in the way, from before or after

The tell is what happens with a **cue**. If a prompt recovers it, the memory was stored and the failure was retrieval

Intelligence and Testing

Psychologists still disagree about how to define **intelligence**. **Spearman's g** proposes one general ability; other theories propose several, including **fluid intelligence** (reasoning with novel problems, which declines with age) and **crystallised intelligence** (accumulated knowledge, which does not).

Early tests produced an **intelligence quotient (IQ)** by dividing mental age by chronological age. Modern scores are compared with a **normal curve** of the population.

Any psychological assessment must meet **psychometric principles**:

- **Standardization** - the test is given under consistent procedures and scored against a comparison group.
- **Validity** - it measures what it claims to. **Construct validity** and **predictive validity** are both examinable.
- **Reliability** - it gives similar results each time, checked by **test-retest reliability** and **split-half reliability**.

IQ scores have risen worldwide over generations (the **Flynn effect**), which points to societal rather than biological causes. Scores vary more *within* groups than *between* them, and **stereotype threat** can lower performance when a person fears confirming a negative stereotype about their group.

Exam tips

- Keep **sensation** and **perception** apart: detecting is sensation, interpreting is perception.

- **Bottom-up** starts with the stimulus; **top-down** starts with expectation. Say which the scenario shows.
- Learn the interference pair by direction: **proactive** means old material acts forward onto new.
- For **encoding** questions, name a specific strategy - chunking, spacing, elaborative rehearsal - not “studying harder”.
- On testing questions, separate **reliability** from **validity**. A test can be reliable and still measure the wrong thing.
- When data are given, quote a figure before naming the concept. Findings-based parts award the link between the number and the term.

Development and Learning

AP Psychology

Studying Development

Developmental psychology studies how people change across the lifespan. Two questions run through the whole unit.

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

Researchers answer these with two designs. A **cross-sectional study** compares different age groups at one time - fast, but differences may come from the groups' different generations. A **longitudinal study** follows the same people over years - slower, but it shows real change within a person.

Physical Development

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

Infant physical development follows the same general order everywhere, though the rate varies. Newborns show **reflexes** that indicate healthy development, such as the **rooting reflex** (turning towards a touch on the cheek). The **visual cliff** experiment shows that infants perceive depth early.

A **critical period** is a window in which a particular experience has an unusually strong effect; a **sensitive period** is a softer version of the same idea.

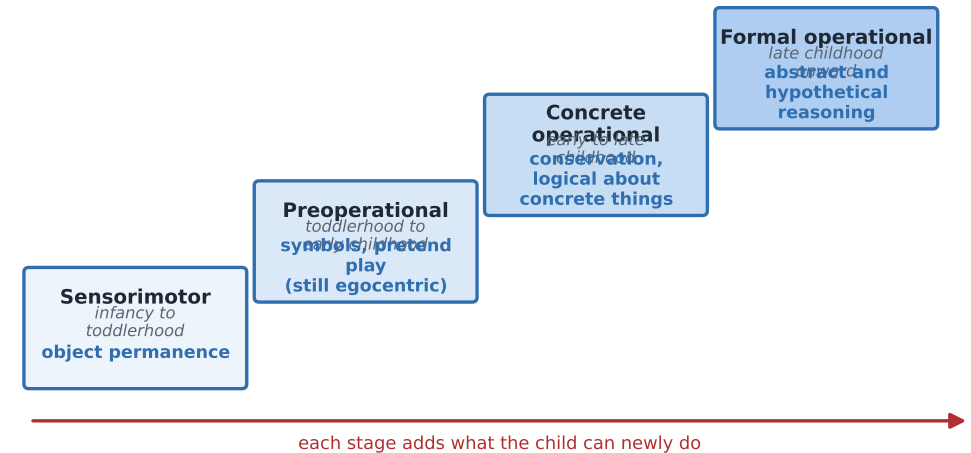
Adolescence brings the **adolescent growth spurt** and **puberty**, including **primary sex characteristics** and **secondary sex characteristics**. Adulthood spans most of life and is marked by a gradual levelling off, then decline - including **menopause** in women.

Gender and Sexual Orientation

Sex refers to biological characteristics, while **gender** refers to the roles and expectations a society attaches to them. **Gender roles** are learned through **socialization**: family, school, peers, and media all teach what behaviour is expected. **Sexual orientation** describes a person's enduring

pattern of attraction. The exam asks how sex and gender influence socialization and development, not for any evaluation of individuals.

Cognitive Development



Piaget's four stages, each defined by what the child can newly do

Piaget proposed that children build **schemas** and pass through four stages:

- **Sensorimotor stage** (infancy to toddlerhood): the child learns through senses and action, and develops **object permanence** - knowing an object still exists when hidden.
- **Preoperational stage** (toddlerhood to early childhood): the child uses symbols and pretend play but shows **egocentrism** (difficulty taking another view) and lacks **conservation** (knowing quantity stays the same when shape changes).
- **Concrete operational stage** (early to late childhood): the child reasons logically about concrete things and gains conservation.
- **Formal operational stage** (late childhood onward): abstract and hypothetical reasoning becomes possible.

Vygotsky saw children as social learners. The **zone of proximal development** is the gap between what a child can do alone and what they can do with help; **scaffolding** is the support that closes it.

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

a decline beyond normal ageing.

Language Development

Language is a shared system of arbitrary symbols used to communicate. Development follows a common sequence: nonverbal **gestures**, then **cooing**, **babbling**, the **one-word stage**, and **telegraphic speech** (two-word combinations).

Children generalise rules before they master exceptions, which produces **overgeneralization** - saying “goed” instead of “went”. This is evidence that they are learning rules, not just copying.

Social and Emotional Development

Ecological systems theory describes development as nested environments, from the immediate family outwards to culture.

Research identifies **parenting styles**: **authoritarian** (high demands, low warmth), **authoritative** (high demands, high warmth), and **permissive** (low demands, high warmth).

Attachment is the emotional bond between infant and caregiver, studied with the **strange situation** procedure. Styles include **secure attachment** and insecure forms (**avoidant**, **anxious**, **disorganized**). **Separation anxiety** is heightened distress when away from a caregiver. Studies with monkeys showed that infants prefer **contact comfort** over food, which changed how attachment was understood.

Peer relationships develop through **parallel play** and **pretend play** in childhood, and adolescents rely on peers more as they age.

Erikson proposed a stage theory of **psychosocial development**, in which each stage poses a conflict to resolve - the adolescent stage being **identity versus role confusion**. **Adverse childhood experiences (ACEs)** affect later relationships and health.

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

The **reunion** is the discriminating moment. A scenario that reports only how upset the child was has not yet told you the style

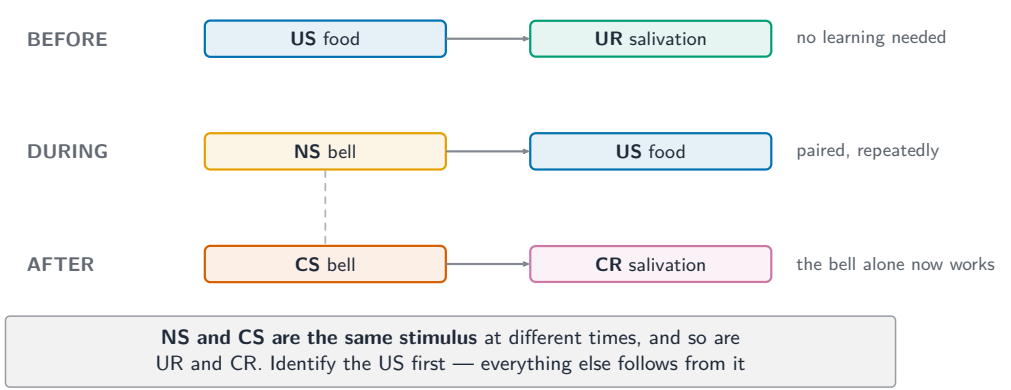
Classical Conditioning

The **behavioral perspective** explains behaviour through learning rather than thought.

Classical conditioning associates one stimulus with another:

- An **unconditioned stimulus (UCS)** naturally produces an **unconditioned response (UCR)** - food causes salivation.
- A **neutral stimulus** paired with the UCS becomes a **conditioned stimulus (CS)**, producing a **conditioned response (CR)**.
- Acquisition** depends on the order and timing of the pairing.
- Extinction** occurs when the CS is no longer paired with the UCS; **spontaneous recovery** is the reappearance of an extinguished CR.
- Generalization** is responding to similar stimuli; **stimulus discrimination** is responding only to the exact CS.
- In **higher-order conditioning** an established CS acts as a UCS for a new one.

Emotional responses can be conditioned, and **taste aversion** shows that some associations are learned in a single trial because they aided survival. **Habituation** is a diminished response to a repeated stimulus.



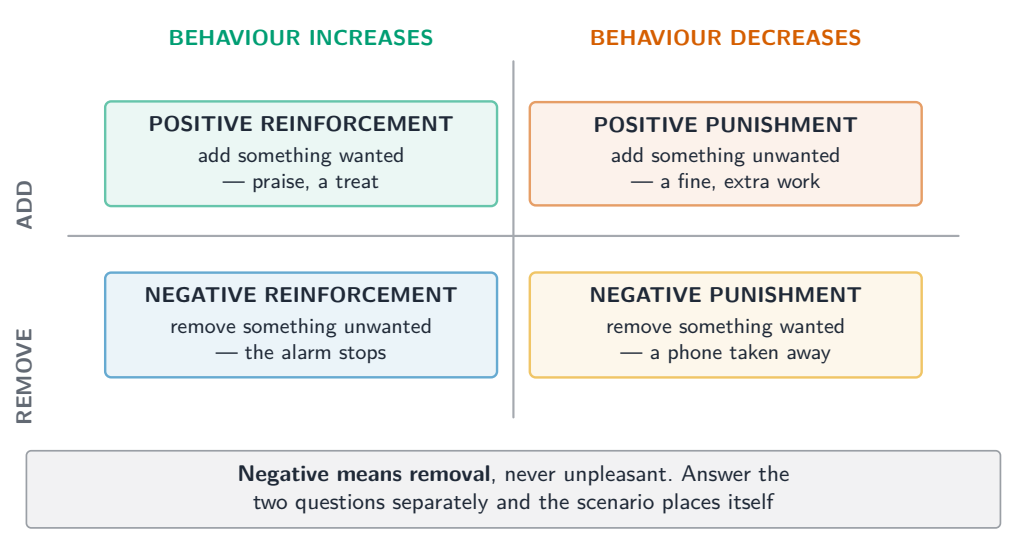
Operant Conditioning

Operant conditioning associates a behaviour with its consequence.

- **Reinforcement** increases a behaviour; **punishment** decreases it.
- **Positive** means something is added; **negative** means something is removed. So **negative reinforcement** increases behaviour by removing something unpleasant - it is not punishment.
- A **primary reinforcer** satisfies a biological need; a **secondary reinforcer** (money) is learned.
- **Shaping** rewards **successive approximations** of a target behaviour.

Reinforcement schedules change how strong and persistent learning is. **Continuous reinforcement** rewards every response and produces fast learning but fast extinction. **Partial reinforcement** comes in four kinds - **fixed-ratio**, **variable-ratio**, **fixed-interval**, and **variable-interval** - and variable-ratio produces the highest, most extinction-resistant rate.

Superstitious behavior arises when a consequence reinforces an unrelated action. **Learned helplessness** develops when an organism repeatedly cannot escape an aversive event and stops trying.



Observational and Cognitive Learning

Not all learning needs direct experience. **Social learning theory** shows that behaviour can be learned by **observation** and **modeling** - the basis of the Bobo doll findings on imitated aggression.

Insight learning is a sudden solution with no gradual conditioning. **Latent learning** is learning that occurs without reinforcement and stays hidden until there is a reason to show it, demonstrated by rats forming a **cognitive map** of a maze.

Worked example (a real AP exam question). The 2024 exam described Gavin, a preschooler at a science museum: he grabbed a large glass marble and tried to bounce it, he was briefly separated from his parents, and the next day he told his grandmother about a picture he had drawn. Students had to “*Explain how Jean Piaget’s concept of assimilation could relate to Gavin’s experience with the glass marble*” and “*Explain how egocentrism could relate to how Gavin interacted with his grandmother in the car*”. A full-mark answer defines the term **and** ties it to the specific detail: “*Gavin already had a schema for balls, which bounce. He assimilated the marble into that schema by treating it as a ball and trying to bounce it.*” Notice the shape: the definition alone earns nothing, and so does retelling the story. The mark is for the join between them.

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.

Social Psychology and Personality

AP Psychology

Explaining Behaviour: Attribution

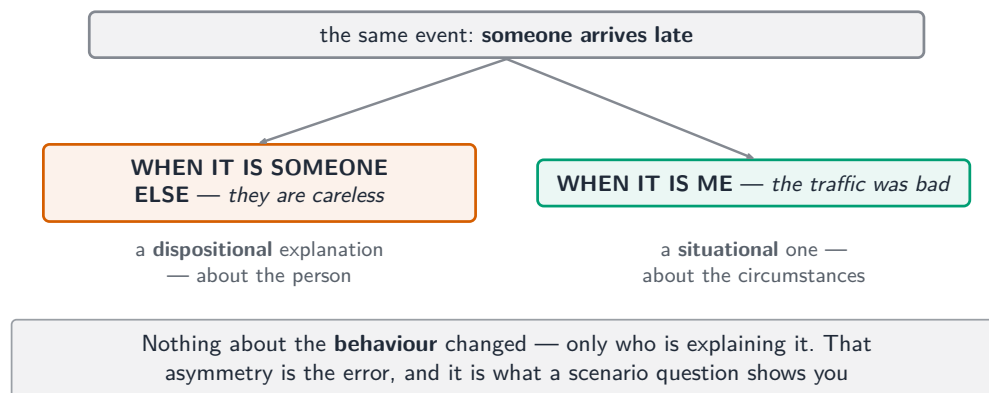
Social psychology studies how people think about, influence, and relate to others. It begins with **attribution** - how we explain behaviour.

An explanation is either **dispositional** (about the person's personality) or **situational** (about the circumstances). People are not even-handed about which they choose:

- The **fundamental attribution error** is over-using dispositional explanations for *other* people's behaviour.
- The **actor-observer bias** - is explaining your own behaviour situationally while explaining others' dispositionally.
- The **self-serving bias** credits success to yourself and blames failure on the situation.
- The **just-world phenomenon** is the belief that people get what they deserve.

A person's **explanatory style** can be **optimistic** or **pessimistic**, and this shapes how they respond to setbacks.

Person perception has its own effects. The **mere exposure effect** means repeated contact increases liking. A **self-fulfilling prophecy** occurs when expectations cause the behaviour that confirms them. **Social comparison** is judging yourself against others, either **upward** or **downward**.



Attitudes and Attitude Change

A **stereotype** is a generalised idea about a group; it reduces mental effort but can be inaccurate and harmful. **Prejudice** is an attitude, and **discrimination** is the behaviour. **Implicit attitudes** are held without full awareness.

Attitudes resist change. **Belief perseverance** keeps a belief alive even after the evidence for it is discredited. **Confirmation bias** is seeking evidence that fits what you already believe.

Cognitive dissonance is the discomfort felt when actions and attitudes conflict. Because the action has already happened, people often resolve it by changing the *attitude* - which is why doing something can change what a person believes.

Social Situations

Social norms define the behaviour a group expects. Behaviour changes when others are present:

- **Conformity** is adjusting behaviour to match a group. It rises with group size (up to a point), unanimity, and ambiguity, and falls when even one other person dissents.
- **Obedience** is following an instruction from an authority. It rises with the authority’s perceived legitimacy and closeness, and falls when the victim is close or the authority is distant.
- **Normative social influence** is conforming to be accepted;
informational social influence is conforming because you think others know better.

Persuasion has two routes in the **elaboration likelihood model**: the **central route** uses the strength of the argument, and the **peripheral route** uses cues such as attractiveness. Sequential techniques matter too: the **foot-in-the-door** technique starts with a small request, while the **door-in-the-face** technique starts with an unreasonable one.

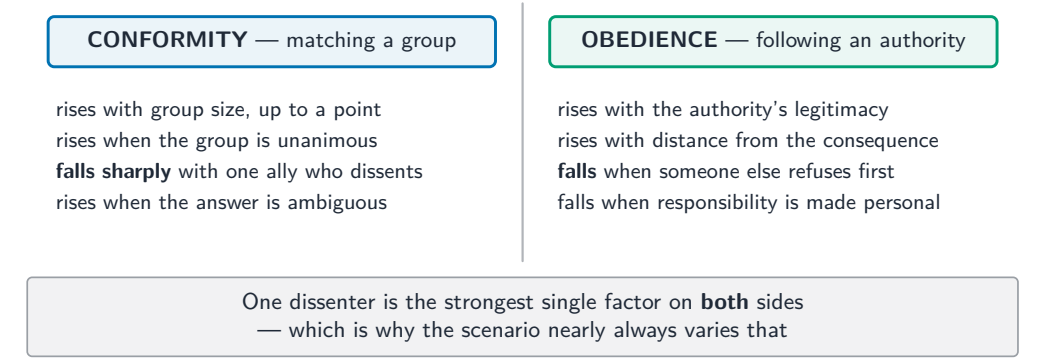
Group settings change behaviour further. **Social facilitation** improves performance on simple or well-practised tasks when others watch, but harms performance on difficult ones. **Social loafing** is reduced individual effort in a group. **Deindividuation** is loss of self-awareness in a crowd. **Group polarization** pushes a group’s average view further in its original direction, and **groupthink** is the suppression of dissent to keep harmony.

Individualism and **collectivism** shape all of these, and **multiculturalism** describes societies holding several traditions together.

The **false consensus effect** is overestimating how many people agree with you. **Superordinate goals** - shared aims that need cooperation - reduce hostility between groups.

Altruism is selfless helping, though **prosocial behavior** may also bring benefit to the helper. The **bystander effect** shows people are less likely to help as the number of onlookers rises, because of **diffusion of responsibility**.

Worked example (a real AP exam question). The 2025 Evidence-Based Question asked students to “develop and justify an argument about whether the presence of others improves performance”, then to “Explain how the evidence from Part B (i) supports your claim using a psychological perspective, theory, concept, or research finding learned in AP Psychology.” A full-mark answer supplies a course concept, not just a restatement of the source: “The participants performed better on the simple task when observed (Source 1). This supports my claim because social facilitation predicts that an audience improves performance on tasks that are simple or well practised, while impairing performance on difficult ones.” Notice the shape: cite the source, then name the concept **and** state what it predicts. Re-describing the study alone does not earn the explanation point.



Personality: Psychodynamic and Humanistic

	Psychodynamic	Humanistic	Social-cognitive	Trait
What drives personality	unconscious conflict	drive towards growth	person, behaviour and environment interacting	enduring characteristics
Key ideas	defense mechanisms (repression, projection, displacement ...)	unconditional positive regard, self-actualization	reciprocal determinism, self-efficacy, locus of control	the Big Five: openness, conscientiousness, extraversion, agreeableness, neuroticism
How it is assessed	projective tests (weak reliability)	interviews, self-report	observation in context	self-report inventories

all four describe the SAME person from different angles

Four approaches to personality, each with a different driver and a different way of measuring it

Personality is a person’s characteristic pattern of thinking, feeling, and behaving. Four approaches are examinable.

The **psychodynamic** approach holds that **unconscious** processes drive personality. **Ego defense mechanisms** protect the person from anxiety, and the examinable set is **denial**, **displacement**, **projection**, **rationalization**, **reaction formation**, **regression**, **repression**, and **sublimation**. It assesses personality with **projective tests**, which present an ambiguous stimulus; these have weak **reliability** and **validity**.

The **humanistic** approach focuses on growth. It emphasises **unconditional positive regard** and **self-actualization** - becoming the fullest version of oneself.

Personality: Social-Cognitive and Trait

The **social-cognitive** approach explains personality through **reciprocal determinism**: the person, their behaviour, and the environment each influence the other two. **Self-efficacy** - belief in one’s own ability to succeed at a task - is central, as is **locus of control**, which is **internal** or **external**.

Trait theories describe personality as enduring characteristics. The **Big Five** traits are **openness to experience**, **conscientiousness**, **extraversion**, **agreeableness**, and **neuroticism**. Traits are measured with self-report inventories, which are more reliable than projective tests.

Motivation

Several theories explain what drives behaviour:

- **Drive-reduction theory** says behaviour reduces a physical need to restore **homeostasis**.
- **Arousal theory** says people seek an optimal level of arousal; the **Yerkes-Dodson law** - states that moderate arousal gives the best performance on most tasks.
- **Self-determination theory** separates **intrinsic motivation** (from within) from **extrinsic motivation** (from reward), and **incentive theory** focuses on the pull of rewards.
- **Instincts** are innate fixed patterns, seen in non-human animals rather than in human behaviour.
- **Lewin’s motivational conflicts** names three: **approach-approach**, **approach-avoidance**, and **avoidance-avoidance**.
- **Sensation-seeking theory** explains differences in the need for novelty.

Eating shows physical and mental processes interacting. **Ghrelin** and **leptin**, regulated by the hypothalamus, control hunger and fullness, while external factors - the sight of food, the time of day, a shared meal - change how much people eat.

Emotion

Emotion, also called **affect**, combines physical arousal, expressive behaviour, and conscious experience. Examinable theories are the **James-Lange theory** - (the body responds first, and emotion is the reading of that response), the **Cannon-Bard theory** - (arousal and emotion occur at once), and the **Schachter-Singer two-factor theory** - (arousal plus a **cognitive label**). **Broaden-and-build theory** - proposes that positive emotions widen thinking and build lasting resources.

Some facial expressions are recognised across cultures, but **display rules** - a culture’s norms for showing emotion - and the events that trigger emotion both vary.

Mental and Physical Health

AP Psychology

Health Psychology and Stress

Health psychology studies how psychological factors affect physical health.

Stress is the process by which people appraise and respond to demands. A **stressor** is the demand itself. Stress raises susceptibility to illness and is linked to poorer immune functioning and to heart disease.

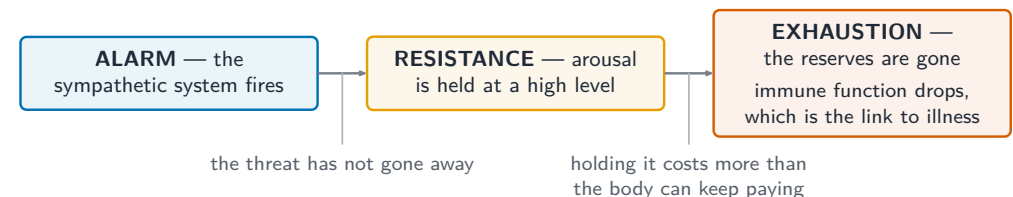
Stressors are not all alike:

- **Eustress** is motivating; **distress** is debilitating.
- Stressors range from **daily hassles** to **significant life changes** and **catastrophes**.

The **general adaptation syndrome (GAS)** describes the body's response in three stages: **alarm** (the sympathetic system mobilises), **resistance** (the body copes at a high but sustainable level), and **exhaustion** (resources run down and vulnerability to illness rises).

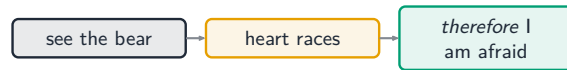
Not everyone responds by fighting or fleeing. **Tend-and-befriend theory** - proposes that some people respond to stress by caring for others and seeking social support.

Coping takes two broad forms. **Problem-focused coping** treats the stressor as a problem to be solved and works on the cause; it suits situations a person can control. **Emotion-focused coping** manages the emotional reaction instead, which suits situations that cannot be changed.

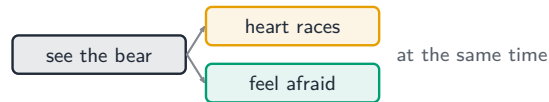


The damage is done by **stage two**, not stage one. A short alarm is adaptive; the harm comes from resistance that never ends

JAMES-LANGE



CANNON-BARD



SCHACHTER-SINGER



Only the **order** differs. Schachter-Singer adds one box the others do not have: a **cognitive label**, which is what makes context matter

Exam tips

- **Fundamental attribution error** applies to explaining *others*. If the question is about explaining yourself, the answer is usually **self-serving bias**.
- **Social facilitation** improves *simple* tasks and harms difficult ones. Say which kind of task the scenario describes.
- Separate **conformity** (matching a group) from **obedience** (following an authority).
- For **cognitive dissonance**, name the conflict and say which side changed - usually the attitude, because the behaviour already happened.
- Learn the **Big Five** as a set; questions often ask you to place a described person on one named trait.
- With emotion theories, the difference is **order**: body first (James-Lange), together (Cannon-Bard), or arousal plus label (two-factor).

Positive Psychology

Positive psychology studies what makes life go well rather than what goes wrong. It looks for the factors behind **well-being** and **resilience**.

Three findings are examinable:

- Expressing **gratitude** raises **subjective well-being**.
- People who use their **signature strengths** report higher objective well-being.
- Posttraumatic growth** is positive psychological change that can follow a struggle with trauma.

Explaining and Classifying Disorders

Deciding that behaviour is disordered involves three considerations: the level of **dysfunction**, the person’s **personal distress**, and **deviation from social norms**. Because norms differ between cultures and change over time, this judgement is not purely objective.

Classifying a disorder has both benefits and costs. A diagnosis guides treatment and gives access to support, but a label can also carry **stigma** and change how a person is treated. Diagnosis requires specialised training and evidence-based criteria.

Most psychologists take an **eclectic approach**, drawing on more than one perspective:

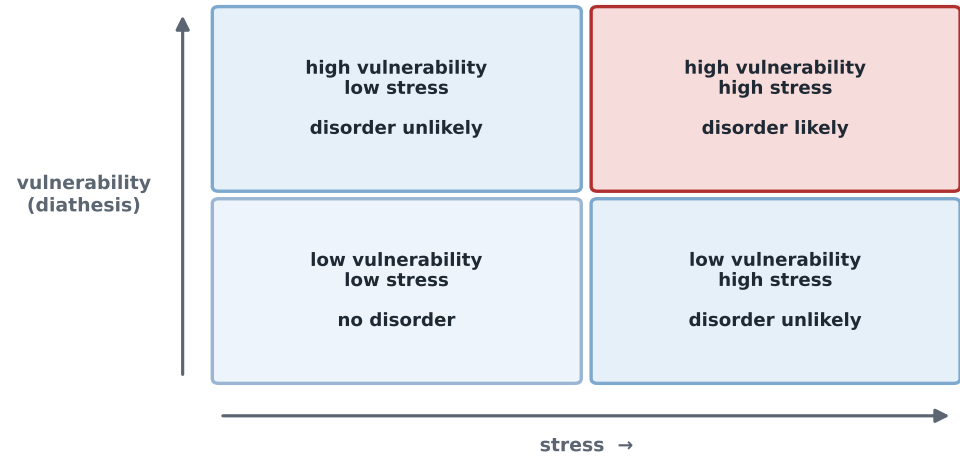
- Behavioral**: disorders come from maladaptive learned associations.
- Psychodynamic**: from unconscious conflict.
- Humanistic**: from a lack of acceptance and support.
- Cognitive**: from maladaptive thought patterns.
- Evolutionary**: from behaviours that were once adaptive.
- Sociocultural**: from the person’s social and cultural setting.
- Biological**: from physiological and genetic factors.

Two integrating models are examinable. The **biopsychosocial model** assumes any psychological problem may combine biological, psychological, and social causes. The **diathesis-stress model** - proposes that a disorder appears when an underlying vulnerability meets sufficient stress - which explains why two people with the same vulnerability may have different outcomes.

CRITERION	WHAT IT ASKS	WHY IT IS NOT ENOUGH
DEVIANCE	is it unusual in this culture?	an unusual talent is also unusual
DISTRESS	does it cause suffering?	some conditions cause the person none
DYSFUNCTION	does it prevent ordinary life?	needs a judgement about what is ordinary
DANGER	is there risk of harm?	rare, and its absence proves nothing

No criterion is sufficient alone, and **culture** enters all four. That is the point the question is usually testing

Categories of Disorders



A vulnerability alone or stress alone may produce no disorder; the model predicts onset where both are present

The CED names a limited set of categories, each with its own features and possible causes.

- **Neurodevelopmental disorders** begin during the developmental period, and causes may be environmental, physiological, or genetic.
- **Schizophrenic spectrum disorders** involve **positive symptoms** - **delusions** (false beliefs), **hallucinations** (false perceptions), **disorganized thinking**, and **catatonia** - and **negative symptoms**, the absence of typical behaviour such as **flat affect**.
- **Depressive disorders** involve sad, empty, or irritable mood with related changes in body and thinking.
- **Bipolar disorders** involve periods of **mania** alternating with periods of depression.
- **Anxiety disorders** involve excessive fear or anxiety: **specific phobia**, **agoraphobia**, **panic disorder** with **panic attacks**, **social anxiety disorder**, and **generalized anxiety disorder (GAD)**.
- **Obsessive-compulsive and related disorders** involve **obsessions** (intrusive thoughts) and **compulsions** (repeated actions).
- **Dissociative disorders** involve dissociation from consciousness, memory, or identity, and are associated with trauma or stress.
- **Trauma and stressor-related disorders** follow exposure to a traumatic event; **posttraumatic stress disorder (PTSD)** is the main example.
- **Feeding and eating disorders** involve altered consumption or absorption of food.
- **Personality disorders** are enduring patterns and fall into three clusters: **Cluster A** the odd or eccentric, **Cluster B** the dramatic or erratic, and **Cluster C** the anxious or fearful.

For every category, the exam expects the same two-part shape: the defining features, and the possible causes - biological, genetic, social, cultural, behavioral, and cognitive.

Treatment

Meta-analyses of psychotherapy conclude that therapy is effective. The rise of effective **psychotropic medication** also changed care, reducing long hospital stays in favour of community treatment.

Clinicians must follow ethical principles, including **informed consent**, **confidentiality**, and working within their competence.

Therapies follow the perspectives above:

- **Psychodynamic therapies** use **free association** and dream interpretation to uncover unconscious material.
- **Cognitive therapies** use **cognitive restructuring** and **fear hierarchies** to change maladaptive thinking.
- **Applied behavior analysis** applies conditioning principles, including **systematic desensitization** and **token economies**.
- **Cognitive-behavioral therapies**, such as **dialectical behavior therapy** and **rational-emotive behavior therapy**, combine both.
- **Person-centered therapy**, from the humanistic perspective, uses **active listening** and unconditional positive regard.

Hypnosis is effective for pain and anxiety, but research does **not** support its use to recover memories. Medications include **antidepressants**, **antianxiety drugs**, **lithium**, and **antipsychotics**. More invasive options include **psychosurgery**, **transcranial magnetic stimulation (TMS)**, and **electroconvulsive therapy (ECT)**.

Worked example (a real AP exam question). The 2025 Article Analysis Question asked, as one of its six parts, to “*Identify at least one ethical guideline applied by the researchers.*” This is an **Identify** part, so it wants a named guideline pointed to in the study, not an essay: “*The researchers obtained informed consent from participants before the study began.*” Notice the shape: **Identify** parts are answered in one accurate sentence, and adding explanation earns nothing extra. Save the writing for the **Explain** parts, where a claim must be supported with evidence.

APPROACH	THINKS THE PROBLEM IS	SO IT
PSYCHODYNAMIC	unresolved conflict outside awareness	brings it into awareness and interprets it
HUMANISTIC	a self blocked from growing	provides acceptance so growth resumes
BEHAVIOURAL	a learned response	unlearns it — exposure, conditioning
COGNITIVE	the way events are interpreted	tests and replaces the interpretation
BIOMEDICAL	a difference in brain chemistry	changes the chemistry — medication

Read the middle column and the third follows. Each therapy treats what it **believes causes** the disorder — nothing has to be memorised in pairs

Exam tips

- Use the three considerations together - **dysfunction**, **distress**, **deviation** - when a question asks what makes behaviour disordered.
- For **diathesis-stress**, name both halves. A vulnerability with no stressor, or a stressor with no vulnerability, is the point of the model.
- Keep **positive** and **negative** symptoms straight: positive means something *added* (hallucinations), negative means something *missing* (flat affect).
- Match therapy to perspective. Free association is psychodynamic; cognitive restructuring is cognitive; systematic desensitization is behavioral.
- **Obsessions** are thoughts, **compulsions** are actions.
- Read the task verb. **Identify** wants a name, **Describe** wants detail, **Explain** wants a reason with evidence.