

"Psychiatry for USMLE"

Section 1: Psychology

Learning Theories

1. Classical Conditioning (Pavlovian Conditioning)

Definition

A type of learning in which a neutral stimulus, after being paired repeatedly with an unconditioned stimulus, comes to elicit an involuntary response.

Key Features

- Deals with involuntary / reflexive responses
- Learning occurs by association
- Response happens automatically, without conscious control

Classic Example (Pavlov)

- Food → salivation (unconditioned stimulus → unconditioned response)
- Bell + food → salivation
- Bell alone → salivation (conditioned response)

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Classical conditioning is commonly tested in phobias, PTSD, and conditioned fear responses.

Flowchart (Classical Conditioning)

Neutral stimulus (bell)

↓ paired repeatedly with

Unconditioned stimulus (food)

↓

Conditioned stimulus (bell alone)

↓

Involuntary conditioned response (salivation)

2. Operant Conditioning (Skinner)  

Definition

Learning in which behavior is shaped by consequences — rewards or punishments.

Key Features

- Involves voluntary behaviors
- Behavior is influenced by what follows the action
- Central to behavior modification

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Operant conditioning is heavily tested in psychiatric therapy models, addiction, and behavior reinforcement questions.

Reinforcement vs Punishment

Reinforcement

- Increases the likelihood of a behavior
- Can be positive or negative

Punishment

- Decreases the likelihood of a behavior
 - Can be positive or negative
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Skinner's Operant Conditioning Quadrants (High-Yield Table)

Behaviour	Add Stimulus	Remove Stimulus
Increase behavior	Positive reinforcement	Negative reinforcement
Decrease behavior	Positive punishment	Negative punishment

Quadrant Explained with Examples

Positive Reinforcement

- Add something desirable to increase behavior
- Example: Giving praise for good performance

Negative Reinforcement

- Remove something unpleasant to increase behavior

- Example: Taking painkillers to relieve pain

Positive Punishment

- Add something unpleasant to decrease behavior
- Example: Yelling at a child for misbehavior


Negative Punishment

- Remove something desirable to decrease behavior
- Example: Taking away phone privileges

Punishment (Concept Summary)

Repeated application of:

- Aversive stimulus (positive punishment), or
 - Removal of desired reward (negative punishment)
- to extinguish unwanted behavior.

 USMLE Tip: Punishment suppresses behavior but does not teach an alternative behavior, unlike reinforcement.

Extinction

Definition

Discontinuation of reinforcement (positive or negative) that eventually leads to elimination of behavior.

Important Points

- Occurs in both classical and operant conditioning
- Behavior may briefly increase initially (extinction burst)

Example

- Ignoring tantrums → tantrums gradually stop
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Transference & Countertransference

Transference

Definition

Patient projects feelings about important figures from their past onto the physician.

Example

- Psychiatrist is perceived as a parental figure

Countertransference

Definition

Physician projects their own unconscious feelings onto the patient.

Example

- Patient reminds doctor of a younger sibling

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Transference is expected and can be therapeutically useful.

Countertransference should be recognized and managed.

Ego Defense Mechanisms

- Split into

1. Mature
2. Immature

Definition

Unconscious (or conscious) thoughts and behaviors used to:

- Reduce anxiety
 - Resolve emotional conflict
 - Protect self-esteem
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Immature Defense Mechanisms (High-Yield for Step 1)

Key Point

Immature defenses are commonly seen in children, adolescents, and certain psychiatric disorders.

Immature Defenses Table

Defense	Description	Exam Example
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Acting out	Expressing unconscious emotional conflict through actions rather than reflection	Patient skips therapy after painful emotional discussions
Denial	Refusal to accept reality despite evidence	Cancer patient plans full-time work despite chemotherapy fatigue
Displacement	Redirecting emotions to a safer substitute target	Teacher scolds spouse after being reprimanded by principal
Dissociation	Temporary detachment from reality to avoid emotional stress	Trauma survivor becomes numb and detached when seeing abuser

Dissociation — Extra USMLE Clarity ★

- Can involve:
 - Memory loss
 - Altered consciousness
 - Emotional numbing
- Common in acute stress disorder, PTSD, and trauma survivors

Flowchart (Dissociation)

Severe emotional stress



Psychological overload



Detachment from reality



Memory gaps / numbness / altered awareness

Immature Defenses Table

Defense	Description	Classic USMLE Example
Fixation	Persistent focus at an earlier developmental stage (vs regression, which is a return)	College student continues thumb-sucking during exams
Idealization	Exaggerated positive evaluation of others while ignoring flaws	Patient praises physician excessively, denies any shortcomings

Identification	Unconscious adoption of traits or behaviors of another person or group	Resident copies attending's stethoscope habits
Intellectualization	Using logic and facts to avoid emotional distress	Cancer patient discusses disease pathophysiology calmly
Isolation of affect	Separation of emotion from content or memory	Describes murder details without emotional response
Passive aggression	Indirect expression of hostility	Employee repeatedly arrives late but denies resentment
Projection	Attributing one's own unacceptable thoughts to others	Man wanting to cheat accuses spouse of infidelity
Rationalization	Creating acceptable explanations to justify behavior	Fired employee claims the job was unimportant
Reaction formation	Expressing feelings opposite to true emotions (vs sublimation)	Stepfather overly nurtures a child he resents

Regression	Reverting to earlier behaviors under stress (vs fixation)	Toilet-trained child resumes bedwetting after sibling's birth
Repression	Unconscious blocking of distressing memories (vs suppression)	Adult cannot recall childhood counseling
Splitting	Viewing others as all good or all bad; intolerance of ambiguity	Patient idealizes doctors, devalues nurses

Splitting — USMLE Favorite ★

- Strongly associated with Borderline Personality Disorder
- Mnemonic: "Borders split countries" 🌍

Flowchart (Splitting)

Emotional stress



Inability to tolerate ambiguity



People viewed as entirely good or entirely bad



Rapid shifts in perception

Comparisons (Exam Traps 🚓)

Fixation vs Regression

- Fixation → staying at an earlier stage
- Regression → returning to an earlier stage after reaching maturity

Projection vs Displacement

- Projection → attribute impulse to someone else
- Displacement → redirect impulse to a safer target

Repression vs Suppression

- Repression → unconscious
 - Suppression → conscious & intentional
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Mature Defense Mechanisms 🌱

Healthy, adaptive mechanisms

Seen in psychologically well-adjusted adults

Rarely pathological

Mnemonic: SASH 🧣

Sublimation

Altruism

Suppression

Humor

Mature Defenses Table

Defense	Description	USMLE Example
Sublimation	Channeling unacceptable impulses into socially acceptable actions (vs reaction formation)	Aggression redirected into sports excellence
Altruism	Helping others to relieve internal distress	Mafia boss donates to charity

Suppression	Conscious, temporary avoidance of distressing thoughts (vs repression)	Athlete focuses on training instead of worrying
Humor	Using jokes to cope with discomfort	Nervous medical student jokes about boards

Sublimation — Extra Exam Pearl ★

- Only defense mechanism that is both mature AND socially productive
- Often the best answer choice when presented

Flowchart (Sublimation)

Unacceptable impulse



Conscious or unconscious redirection



Socially acceptable behavior



Reduced anxiety + functional outcome

One-Glance Summary

- Immature defenses → maladaptive
- Mature defenses → healthy coping, SASH mnemonic

Grief

Definition

Grief is a normal, natural emotional response to the death of a loved one.

Key Characteristics

- Symptoms and course vary between individuals
- No fixed sequence of stages
- Specific to:
 - The individual
 - The nature of the loss
 - Cultural and religious context

Common Symptoms of Grief

- Sadness, guilt, yearning
- Somatic complaints (fatigue, pain)
- Hallucinations of the deceased (normal in grief 🧐)
- Transient thoughts of:
 - "I wish I had died with them"
 - "Life is not worth living without them"

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Passive death wishes can be normal in grief if no intent or plan is present.

Acute (Normal) Grief

- Time-limited
- Gradual adaptation within ~6 months
- Not a psychiatric disorder
- Does not significantly impair long-term functioning

Prolonged Grief Disorder (Pathologic Grief)

Diagnosis

- Intense grief lasting $\geq 6-12$ months
- Significant functional impairment
- Inconsistent with cultural or religious norms
- Does NOT meet criteria for another disorder (e.g., MDD)

Key Differentiation

- In grief \rightarrow mood improves with reminders of deceased
- In MDD \rightarrow pervasive low mood, anhedonia

\rightarrow Flowchart: Grief Evaluation

Loss of loved one



Assess duration & severity



< 6 months + gradual adaptation → Normal grief



≥ 6-12 months + functional impairment



Exclude MDD



Prolonged grief disorder

Normal Infant & Child Development 🧒🧒

Milestone ages are ranges, not exact dates

Failure to meet milestones → evaluate for developmental delay

Infant (0-12 months)

Mnemonic for reflexes: Mr. Peanut Butter 🍪

(Moro, Rooting, Palmar grasp, Babinski)

Motor

- Head lifting (by 1 mo)
- Rolls & sits (by 6 mo)
- Crawls (by 8 mo)
- Stands (by 10 mo)
- Walks (12-18 mo)

Fine Motor

- Transfers objects hand-to-hand (by 6 mo)
- Pincer grasp (by 10 mo)
- Points to objects (by 12 mo)

Social

- Social smile (by 2 mo)
- Stranger anxiety (by 6 mo)
- Separation anxiety (by 9 mo)

Verbal / Cognitive

- Orients to voice (by 4 mo)
- Responds to name/gestures (by 9 mo)
- Object permanence (by 9 mo)
- "Mama/Dada" (by 10 mo)

Toddler (12-36 months)

Motor

- First steps (by 12 mo)
- Climbs stairs (by 18 mo)
- Kicks ball (by 24 mo)
- Stacks cubes = age \times 3

Self-care

- Feeds self with fork/spoon (by 20 mo)

Social

- Parallel play (24-36 mo)
- Rapprochement (moves away then returns to parent)
- Core gender identity formed (by 36 mo)

Language

- 50-200 words (by 2 yr)
- 300+ words (by 3 yr)

Preschool (3-5 years) 🎨

Motor

- Tricycle (3 wheels at 3 yr 🚲)
- Hops on one foot by 4 yr ("4 on one foot")
- Buttons/zippers & grooming (by 5 yr)

Social

- Comfortable away from parents (by 3 yr)
- Cooperative play
- Imaginary friends (by 4 yr)

Language / Cognition

- Understands ~1000 words (3 zeros) by 3 yr
- Full sentences + prepositions (by 4 yr)
- Tells detailed stories (by 4 yr)

-> The End <-