

# Abnormal Psychology

PSYCH 40111

## Models of Psychopathology

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## Scientific Paradigms

- **Paradigms** are conceptual frameworks that scientists use to study the world
  - Paradigms include assumptions about science and methods
  - Paradigms dictate what will and will not be studied
  - Paradigms can dictate the methods used by a scientist

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## Abnormal Behavior in Ancient Times

- Demonology, gods, and magic
- Hippocrates' medical concepts
- Early philosophical conceptions of consciousness and mental discovery



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## Abnormality During the Dark Ages

- Marked by an increase of influence of churches
- Church authorities came to view witchcraft as an explanation of abnormality
  - Witches were in the league with the Devil
  - Torture was required to elicit "confessions"



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## Renaissance

- Resurgence of scientific questioning in Europe
- Establishment of early asylums and shrines
- Humanitarian Reformers



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## The Beginning of the Modern Era

- Establishing the link between the brain and mental disorder
- Early biological views
- The beginnings of a classification system



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## Early Views of Psychopathology

- **Somatogenesis** is the view that disturbed body function produces mental abnormality
- **Psychogenesis** is the belief that mental disturbance has psychological origins

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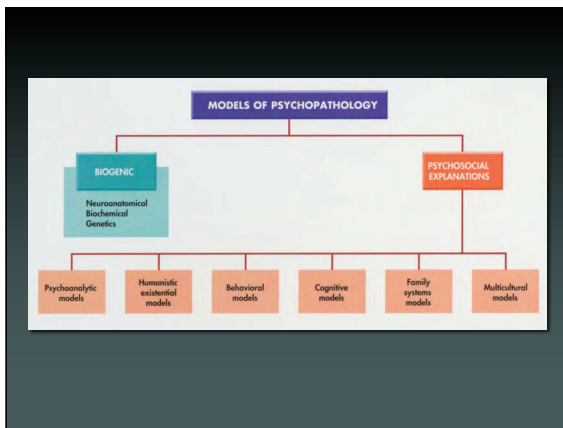
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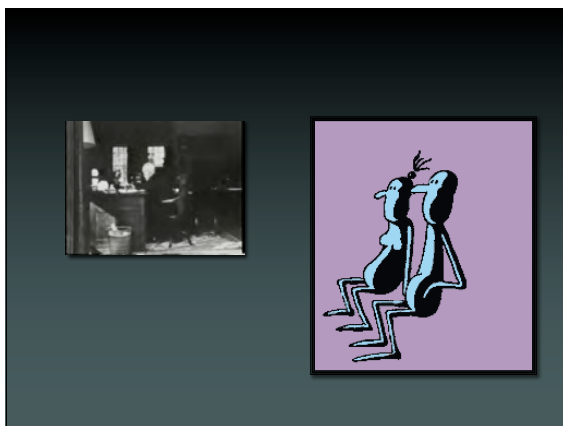
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## The Psychoanalytic Paradigm

- The core assumption of the psychoanalytic paradigm is that abnormal behavior reflects unconscious conflicts within the person
- The psychoanalytic paradigm is derived from the theories of personality developed by Sigmund Freud



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## Freud's Model of the Mind

- Freud suggested that the mind is composed of three parts:
  - **Id** is the raw energy that powers the mind
    - Id seeks gratification of basic urges for food, water, warmth, affection, and sex
    - Id processes are unconscious
  - **Ego** is a conscious part of the mind that deals with reality
  - **Superego** is the final part of the mind to emerge and is similar to the conscience

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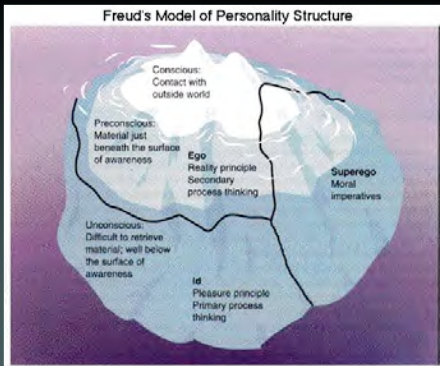
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Freud's Model of Personality Structure



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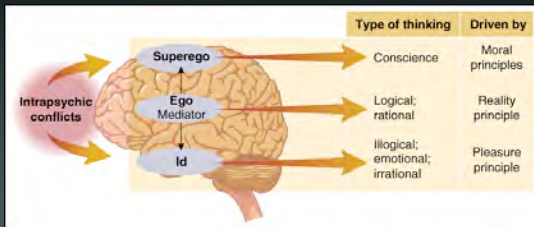
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## Freud's Model of the Mind



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## Psychosexual Development

- Freud argued that personality develops in stages: in each stage the id derives pleasure from a distinct part of the body
  - **Oral** (Birth to 18 months): infant derives pleasure from eating and biting
  - **Anal** (18 months to 3 years): the focus of pleasure is the anus
  - **Phallic** (3 to 6 years): the genitals are the focus of pleasure
  - **Latent** (6 to 12 years): id impulses are dormant
  - **Genital**: heterosexual interests are dominant

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## Defense Mechanisms

- Anxiety results from blockade of id impulses or from fear of expression of an impulse
- **Defense mechanisms** reduce anxiety:
  - Repression
  - Denial
  - Projection
  - Displacement
  - Reaction formation
  - Regression
  - Rationalization
  - Sublimation

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## Psychoanalysis

Goal: Insight

- Free association
- Interpretations
- Dream analysis
- Resistance
- Transference



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## Neo-Freudian and Modern Psychodynamic Theories

- Jung
- Adler
- Ego Psychology (Horney, Erikson)
- Object Relations (Klein, Kernberg)
- Interpersonal Therapy (Sullivan)
- Attachment Theory (Bowlby)

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## Critique of Psychoanalysis

- Sexual instincts as basis for all behavior
- Id, Ego, Superego
- Based on limited sample of women in Vienna
- Little evidence for success with many disorders
- Lengthy/expensive treatment
- Not based on empirical research

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## Freud's Legacy

- Freud contributions include the views that:
  - Childhood experiences help shape adult personality
  - There are unconscious influences on personality
  - Defense mechanisms help to control anxiety
  - The causes and purposes of human behavior are not always obvious

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## Humanistic/Existential Paradigms

- Humanistic/existential paradigms focus on insight into the motivations/needs of the person
  - These paradigms place greater emphasis on the person's freedom of choice (free will)
  - The humanistic paradigm does not focus on diagnostic labeling

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## Assumptions of Roger's Client-Centered Therapy

- People can only be understood from the vantage point of their own feelings (phenomenology)
- Healthy people are:
  - aware of their own behavior
  - innately good and effective
  - purposive and directive

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## Existential Therapy

- The existential view emphasizes personal growth
- The existential view notes that making choices results in anxiety
- Existential therapy encourages clients to confront their anxieties and to make important decisions about how to relate to others

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## Gestalt Therapy/ Modern Experiential Therapy

- Gestalt therapists focus on the here and now and on the individual as an actor responsible for his or her role
- Modern experiential therapy combines humanistic, existential, and Gestalt approaches:
  - attending to nonverbal cues
  - empty-chair technique
  - 2-chair dialogue

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## Evaluation of Humanistic/ Existential Approach

### Pros:

- Relies upon the client's strengths, goals
- Rogers should be credited for the origination of psychotherapy research

### Cons:

- Premise that humans are inherently good has been challenged
- No effort is made to determine whether the patient has the necessary skills for effective change

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## Behavior Paradigm

- Focus on environmental influences and observable behavior: Behaviorism
- Learning
  - the process whereby behavior changes in response to the environment
- Key Figures
  - Pavlov
  - Watson
  - Thorndike
  - Skinner

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## Three Models of Learning

- Classical conditioning
  - Pavlov
- Operant/instrumental conditioning
  - Skinner
- Modeling/observational learning
  - Bandura

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## Classical Conditioning

- Unconditioned Stimulus (UCS)
- Unconditioned Response (UCR)
- Conditioned Stimulus (CS)
- Conditioned Response (CR)




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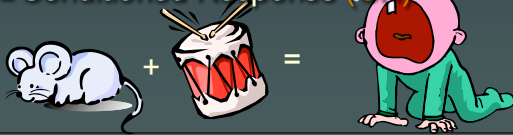
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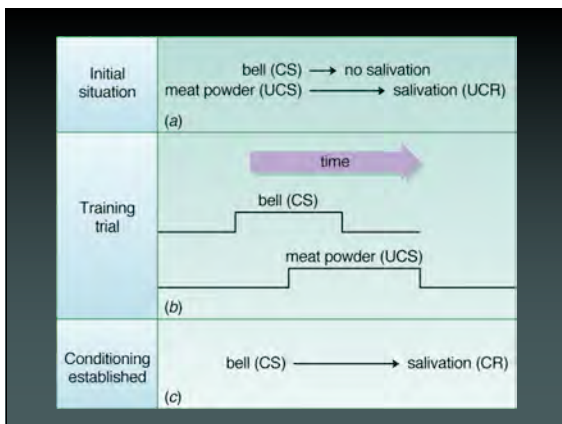
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## Operant Conditioning

- Operant conditioning
  - The likelihood of a response is increased or decreased by virtues of its consequences
  - Contingency (*Thorndike's Law of Effect*)
    - the association between action and consequences
  - Reinforcement
    - the process by which events in the environment increase the probability of the behavior that precede it

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## Operant Conditioning

- Positive reinforcement
  - behaviors followed by pleasant stimuli are strengthened
- Negative reinforcement
  - behaviors that terminate a negative stimulus are strengthened
- Punishment
  - suppression of behavior by introduction of aversive consequences

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## Modeling

- Learning can occur in the absence of reinforcers
- **Modeling** involves learning by watching and imitating the behaviors of others
  - Models impart information to the observer
    - Children learn about aggression watching aggressive models

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## Behavior Therapy

- Behavior therapists use classical and operant conditioning techniques as well as modeling
  - Exposure
  - Systematic desensitization
  - Contingency Management
  - Observational Learning

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## Evaluating Behaviorism

### Cons:

- Oversimplification
- Determinism
- Denies Intrapersonal factors

### Pros:

- Scientific
- Sensitive to Environmental Factors

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## The Cognitive Paradigm

- Based in Information processing viewpoint
- **Cognition** involves the mental processes of perceiving, recognizing, judging and reasoning
- **Schemas**
  - Beliefs
  - Attributions
  - Expectancies

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## Cognitive Therapy

- Ellis
  - Rational-Emotive Therapy
- Beck
  - Cognitive Distortions
  - Negative Cognitive Triad
  - Automatic Thoughts

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## Cognitive Behavior Therapy

- Cognitive and Behavioral Paradigms have largely merged
- Thoughts, feelings, behaviors are all causally interrelated
- Combination of performance-based and thinking-based interventions
- Collaborative Empiricism
  - Interactive effort between therapist and client

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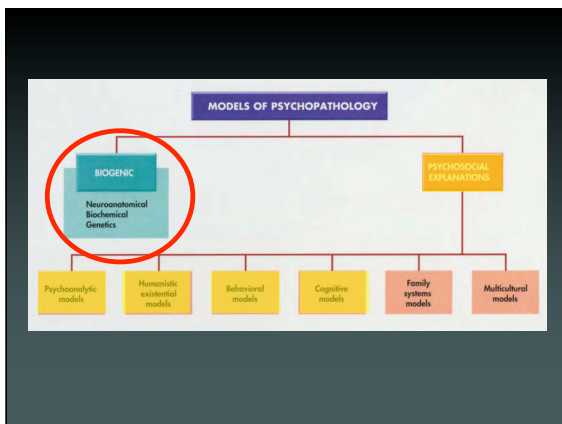
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## The Biological Paradigm



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## The Biological Paradigm



- The **biological paradigm** (medical model) suggests that alterations of biological processes result in abnormal behavior
- Biological processes may include:
  - Imbalances of brain chemistry (**functional deficits**)
  - Disordered development of brain **structures**
  - Disordered genes lead to disorder (**heredity**)

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## Neuroscience and the Nervous System

- The Field of Neuroscience
  - The role of the nervous system in disease and behavior
- The Central Nervous System (CNS)
  - Brain and spinal cord
- The Peripheral Nervous System (PNS)
  - Somatic and autonomic branches

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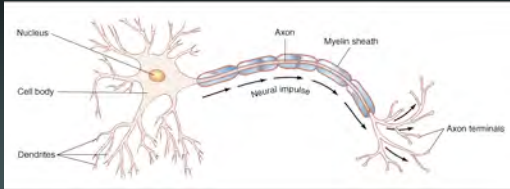
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## The Neuron



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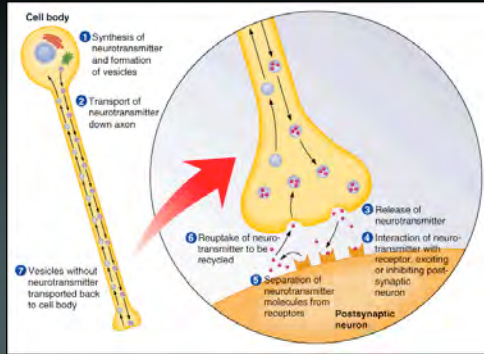
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## Transmission of information from one neuron to another



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## Neuroscience: Neurotransmitters and Psychopharmacology

- Functions of Neurotransmitters
  - Agonists, antagonists, and inverse agonists
  - Most drugs are either agnostic or antagonistic
- Main Types and Functions of Neurotransmitters
  - Serotonin (5HT)
  - Gamma aminobutyric acid (GABA) and benzodiazepines
  - Norepinephrine and beta blockers
  - Dopamine and L-Dopa

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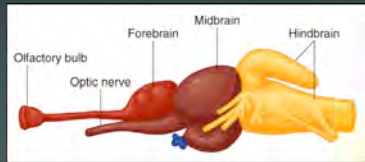
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# Neuroscience and Brain Structure

- Two Main Parts
  - Brainstem and forebrain
- Three Main Divisions
  - Hindbrain
  - Midbrain
  - Forebrain




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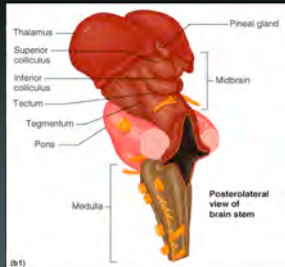
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Midbrain and Hindbrain




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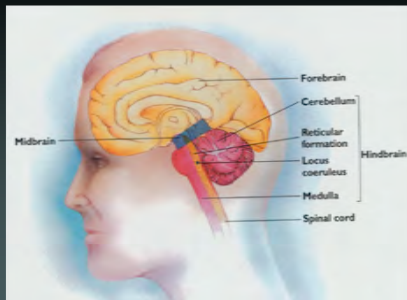
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Midbrain and Hindbrain




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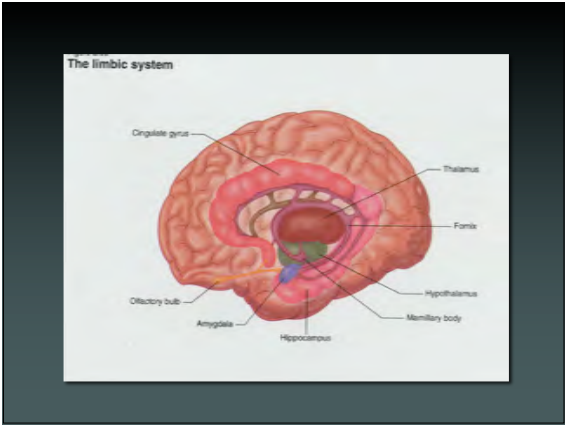
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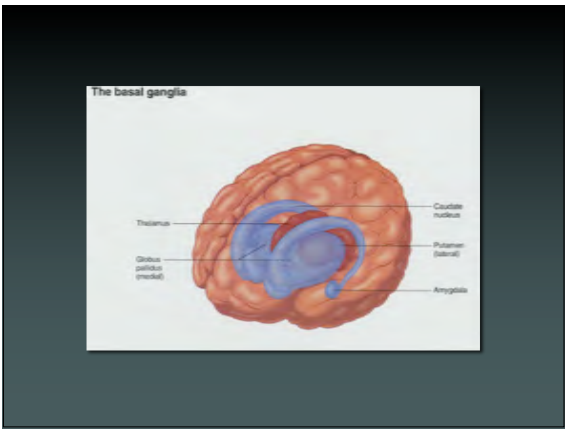
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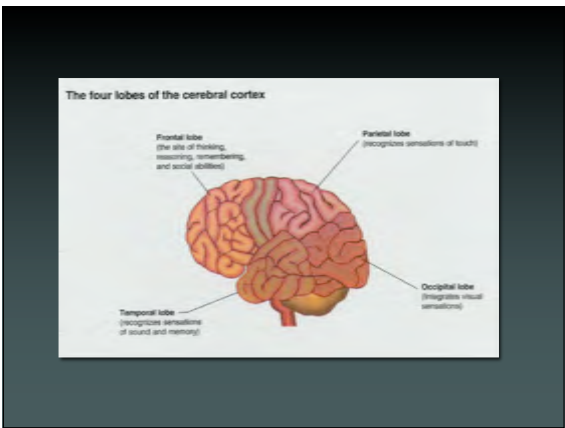
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## The Peripheral Nervous System

- Peripheral nervous system (PNS)
  - A network of nerve fibers leading from the CNS to all parts of the body
- Somatic Branch of PNS
  - Controls voluntary muscles and movement
- Autonomic Branch of the PNS
  - Sympathetic division
    - mobilizes the body to meet emergencies
  - Parasympathetic division
    - slows down metabolism and regulates the organs in such a way that they can do the work of rebuilding their energy supply

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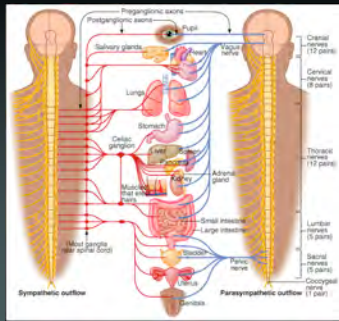
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The sympathetic nervous system (red) and parasympathetic nervous system (blue)



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## The Endocrine System

- Hormones
  - chemical messengers that are released into the bloodstream by the endocrine glands
  - affect sexual functioning, appetite, sleep, physical growth and development, the availability of energy, and emotional responses
- Hypothalamic-Pituitary-Adrenalcortical Axis
  - HPA axis
  - Integration of endocrine and nervous system function

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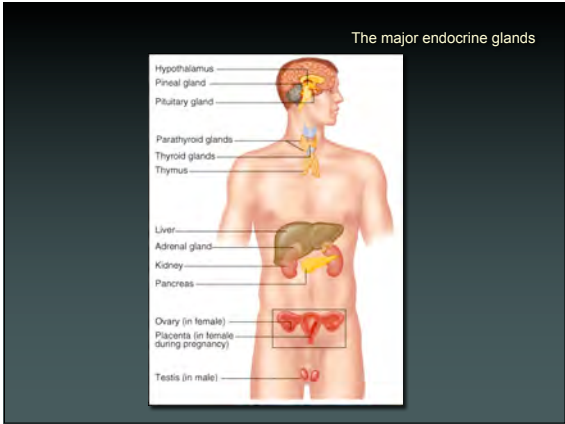
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## Biological Approaches to Treatment

- The approach to treatment is usually to alter the physiology of the brain
  - Drugs alter synaptic levels of neurotransmitters
  - Surgery to remove brain tissue
  - Induction of seizures to alter brain function
- Experience Can Change Brain Structure and Function
- Therapy Can Change Brain Structure and Function
  - Medications and psychotherapy

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## Behavior Genetics

- **Behavior genetics** is the study of how individual differences in genetic makeup contribute to differences in behavior
  - **Genotype** is the total genetic makeup, composed of genes
  - **Phenotype** is the observable behavioral profile
    - The phenotype can change over time as a function of the interaction of genes and environment

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## Methods of Behavioral Genetics

- Family studies
- Twin studies
- Adoption studies
- Molecular genetic studies

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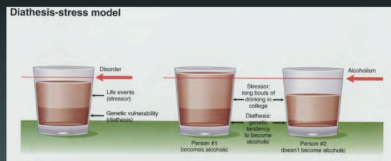
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## Models: An Integrative Approach

- Psychopathology is multiply determined
- One-dimensional accounts of psychopathology are incomplete
- On the horizon: innovative approaches to psychopathology (e.g., emotion frameworks)
- Must consider reciprocal relations between
  - Biological, psychological, social, experiential, cultural, and developmental factors

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# Multidimensional Perspective of Abnormal Behavior




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# Multidimensional Perspective of Abnormal Behavior

**Table 3-4**  
Comparing the Models

	BIOLOGICAL	PSYCHODYNAMIC	BEHAVIORAL	COGNITIVE	HUMANISTIC	EXISTENTIAL	SOCIO-CULTURAL
Cause of dysfunction	Biological malfunction	Underlying conflicts	Maladaptive learning	Maladaptive thinking	Self-doubt	Avoidance of responsibility	Family/social stress
Research support	Strong	Modest	Strong	Strong	Weak	Weak	Moderate
Consumer designation	Patient	Patient	Client	Client	Patient or client	Patient or client	Client
Therapist role	Doctor	Interpreter	Teacher	Persuader	Observer	Collaborator	Social facilitator
Key therapist intervention/technique	Biological intervention	Free association and interpretation	Conditioning	Reasoning	Reflection	Varied	Social intervention
Therapy goal	Biological repair	Broad psychological change	Functional behaviors	Adaptive thinking	Self-actualization	Authentic life	Effective family/social system

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