

Chapter 1: The Evolution of Psychology

- People drawn to psychology because of analysis and prevention of such situations like bullying

Philosophy, Physiology and Psychology

- Psychology: “the study of the mind”
 - Greek roots- psyche: soul and logos: study of a subject
 - Been around since beginning of time because we always wonder about human behavior and mind, but only a century ago it became a scientific disciplinary
- Aristotle (385-322 B.C.E)
 - Theory of memory: memories are result of 3 principles of association- similarity, contrast and contiguity
- Descartes (Renaissance)
 - Argued for the dualism of mind and body
 - Body and mind separate
 - Mind (soul) immaterial and the “province of god”
 - Memory, perception, dreams etc. were properties of body
 - Humans part of nature
- William Harvey (1682)
 - Blood circulation function of heart

Contributions of Wundt and Hall

- Wilhelm Wundt
 - Made psychology an independent discipline instead of branching off of philosophy and physiology
 - Established first formal laboratory for research in psych at University of Leipzig
 - 1879 psychology’s “date of birth”
 - Said to be founder of psych
 - Driving force behind American Psychological Association (APA)

Structuralism vs. Functionalism

- Structuralism: task of psych is to analyze consciousness into its basic elements and see how they are related
 - Edward Titchener
 - Studied how matter is made of different particles and examine fundamental components of conscious experience like sensation, feelings, images
 - To examine contents of consciousness: introspection: careful, systematic self-observation of one’s own conscious experience
 - Just watching the individual won’t tell you anything, you have to ask them
- Functionalism: psych should investigate the function or purpose of consciousness rather than structure
 - William James
 - Illustrated how its embedded in network of cultural and intellectual influences
 - He liked natural selection and how it suggested typical characteristics of species all serve a purpose
 - So he said the consciousness is an important characteristics of our species so they should study function and not features of consciousness
 - He argued that consciousness was a flow of thoughts and that the ‘elements’ the other school saw were points in the flow, called it stream of consciousness
- Structuralists go for laboratory functionalist interested how people adapt their behavior to real world demand
- Margaret Floy Washburn first women in the US to receive Ph.D in psych
- Functionalism won fight even though both schools faded away
 - Developed 2 descendants: behaviorism and applied psychology

Behaviorism

- Scientific psychology should study only observable behavior
- John B. Watson
- Should forget consciousness all together and focus on behaviors they could observe directly
- Thought anyone could agree or disagree with their ideas and only way for everyone to agree with them is if scientific facts are used
- Behavior: any observable response or activity by an organism
- Nature (genetics) vs. nurture (environment): picked nurture
 - Said give him a bunch of infants and he'll make all of them into something he wants
 - Stimulus: any detectable input from environment
- Ivan Pavlov: stimulus response
 - Dogs salivate to sound of bell

Gestalt

- Primary concerned with perception
- Said psych should be conscious not behavior

Freud

- Treated mental disorders
- Used psychoanalysis
- Unconsciousness: contains thoughts, memories, and desires below surface of unconsciousness but it plays role in our behavior
- Concluded: psychological disturbances largely caused by personal conflicts in unconscious level
- Psychoanalytic theory: attempts to explain personality, motivation and mental disorders by focusing on unconscious
- Said people are not masters of their own mind
- Behavior influenced by how people cope with their sexual urges
- Scientists weren't comfortable with this because they were unsure about studying the conscious experience so they turned to behavior because they felt it didn't have enough proof

Skinner

- Made a system called radical behaviorism
- Organisms repeat responses with good outcome and don't repeat if lead to bad outcome
- All behaviors governed by external stimuli- people are controlled by environment not themselves
 - Free will is an illusion
- Behaviorism became dominant school during 1950-60s

Humanists Revolt

- People thought behaviorism and psychoanalytic theory school was dehumanizing
 - Both suggested people aren't masters of own destiny
- Humanism: blend of 2, emphasizes unique quality of humans, especially freedom and potential for personal growth
- Carl Rogers: human behavior driven by sense of self ad since animals lack it we shouldn't be testing them
- Rogers and Abraham Maslow said in order to get humans they must take into account the drive towards personal growth

Perspective and its influence period	Principal contributors	Subject matter	Basic premise

Behavioral (1913-present)	John B. Watson Ivan Pavlov B.F Skinner	Effects of environment on the overt behavior of humans and animals	Only observed events can be studied scientifically
Psychoanalysis (1900-present)	Sigmund Freud Carl Jung Alfred Adler	Unconscious determinants of behavior	Unconscious motives and experiences in early childhood govern personality and mental disorders
Humanistic (1950s-present)	Carl Rogers Abraham Maslow	Unique aspects of human experience	Humans are free, rational beings with the potential for human growth, and they are fundamentally different from animals
Cognitive (1950s-present)	Jean Piaget Noam Chomsky Herbert Simon	Thoughts, mental processes	Human behavior can't be fully understood without looking at how people acquire, store and process info
Biological (1950s-present)	James Olds Roger Sperry David Hubel Torsten Weisel	Physiological basis of behavior in humans and animals	Organisms functions can be explained in terms of the bodily structure and biochemical processes that underlie behavior
Evolutionary (1980s-present)	David Buss Martin Daly Margo Wilson Leslie Cosmides John Tooby	Evolutionary basis of behavior in humans and animals	Behavior evolved to solve adaptive problems. Natural selection favors behaviors that increase reproduction success

- Applied psychology: branch of psych that deals with everyday practical problems
- Clinical psych: branch concerned with diagnoses and treatment of psychological problems and disorders
 - Became famous after world war 2 when military needed psych help because of trauma

Cognition

- Mental processes involved in acquiring knowledge
- Involves thinking or conscious behavior
- Became famous after the dominance of behaviorism
- Said must study internal mental events to fully understand behavior
- James Olds- electrical stimulation of the brain could evoke emotional responses
- Roger Sperry- right and left half of brain specialized to handle diff types of mental tasks
- Donald Hebb
 - Argued locus of behavior should be sought out in brain- brain linked to behavior
 - Repeated stimulation leads to cell assembly that facilitate behavior
 - Ideas suggested how neural networks might work and be organized
- Neuroethics: concerns with ethics in neuroscience (how the information of our brain is used)

Cultural diversity

- Never paid attention to non-western cultures because research costly, difficult and time consuming
- Also scared that stereotypes may be true and they are already victimized for it
- Ethnocentrism: tendency to view one's own group as superior to others

The emergence of Evolutionary Psychology

- Examines behavioral processes in terms of their adoptive value for members of a species over the course of many generations
- Natural selection favors behaviors that enhance organisms reproductive success
- Ex. Men are better with maps because they use to hunt and gather food
- Some people say evolutionary hypothesis untestable and human behavior result of learning and socializing not evolution

Positive Psychology Movement

- Martin seligman said psych was too negative in its approach
 - Focused too much on healing suffering
- Thought they should also focus on happy things, things that make life worth while
- Pos. psych: uses theory and research to better understand the pos, adaptive, creative and fulfilling aspects of human existence
- 3 areas of interest:
 - Study of positive subjective experience: positive emotions like happiness, love, gratitude, hope
 - Positive individual traits: personal strengths and virtues i.e. courage, perseverance
 - Positive institutions and communities: how society can foster strong families, healthy work environment

Psychology Today

- Psychology: science that studies behavior and physiological and cognitive processes that underlie it, it's the profession that applies the knowledge to practical problems

Research Area and Psychology

Developmental psychology	Looks at human development across the lifespan
Social psych 21.2%	Focuses on interpersonal behavior and the role of social forces in governing behavior. Typical topics include: attitude formation/ change, aggression
Experimental psych 12.6%	Traditional core of topics: sensation, perception, learning, conditioning, motivation & emotion. Name misleading because all areas do experiments
Physiological psych 9.7%	Examines the influence of genetic factors on behavior and the role of the brain, NS, endocrine system and bodily chemicals in the regulation of behavior
Cognitive psych 7.7%	Focuses on 'higher' mental processes like memory, reasoning, information processing, language, problem solving, decision making and creativity
Personality 4.2%	Describes/ understands persons consistency in behavior which rep their personality. Also interested in factors that shape personality
Psychometrics 4.8%	Measurement with the measurement of behavior and capacities. Involved with design of tests to access personality, intelligence etc.

Professional Specialties in Psychology

Clinical psych 68.8%	Concerned with evaluation, diagnosis and treatment of individual with psychological disorders as well as less severe problems
Counseling psych 14.8%	Overlaps with clinical because specialists engage in similar activities: interviewing, testing, providing therapy. Provides assistance to people struggling with everyday problems of modern severity. Specialize in family, marital or career counseling
Educational and school psych 8.4%	Improve curriculum design, achievement testing, teacher training etc. usually work in elementary or secondary schools and help kids and parents with school related problems
Industrial and organizational psych 5.7%	Perform tasks in world of business and industry i.e. running human resource departments, working to improve staff morale/attitude, making recommendations for improvement

Clinical vs. psychiatry

- Clinical psych
 - Non-medical approach
- Psychiatry: branch of medicine concerned with diagnosis and treatment of psychological problems and disorders
 - Can give medicine

Themes Related to Psychology as a Field

1. Psych is empirical
 - Empirical: knowledge should be acquired through observation
 - Psych based on observation not reasoning
2. Psych is theoretically diverse
 - Theory: system of unrelated ideas used to explain a set of observations
 - It links unrelated observations together to try and explain them
3. Psych evolves in a sociohistorical context
 - Sociohistorical: develops in social and historical events
 - Progress in psych affects, trends, issues and values in society

Themes related to psych's subject matter

4. Behavior is determined by multiple causes
 - Can't blame behavior on one thing
 - Ex. Can't say someone dropped out of school because they were lazy
 - Multifactorial causation of behavior: behavior governed by complex network of interacting factors
5. Behavior is shaped by cultural heritage
 - Culture: customs, beliefs, values, norms passed down from generations
6. Heredity and environment jointly influence behavior
 - Nature vs. nurture
 - Watson said nurture, Galton said nature
 - Most agree both important
7. People's experience of the world is highly subjective
 - People process incoming info, selectively focus on some area and ignore others
 - Some studies say people see what they expect to see

Chapter 2: The Research Enterprise in Psychology

Goals of scientific enterprise:

1. Measurement and description
2. Understanding and prediction
3. Application and control

- Scientific investigations systematic: follow orderly pattern
1. Step 1: formulate a testable hypothesis
 - Expressed as prediction
 - Provide operational definitions of the relevant variables
 - Operational definition: describes actions or operations that will be used to measure or control a variable
 2. Step 2: select the research method and design the study
 - Participants/subjects: person/animal whose behavior is observed
 3. Step 3: collect the data
 - Data collection techniques

Technique	Description
Direct observation	Observers trained to watch and record behavior as objectively and precisely as possible
Questionnaire	Written question
Interview	Face to face
Psychological test	Administered to standardized measure to obtain sample of their behavior
Physiological recording	Instrument used to monitor specific progress ex. Blood pressure, heart rate
Examination of archival records	Researcher analyses existing institutional records such as census, medical, educational, business records

4. Step 4: analyze the data and draw conclusions
 - Observations converted to numbers=raw data
5. Step 5: report findings
 - Write a summary or report to give to journal

Advantages to the scientific approach

- Clarity and precision
 - Requires hypothesis to be exactly what they are talking about
- Relative intolerance to error
 - Demand objective data before they accept ideas
- Research methods: general strategies for conducting studies

Experimental research

- Research method where they manipulate a variable and see if the second variable changes as a result
- Psychologists depend on this method
- Independent variable: experimenter varies in order to see impact on other variable
- Dependent variable: affected by independent variable

Experimental and control groups

- Experimental group: subjects who get special treatment in regards of independent variable
- Control group: don't get special treatment because of independent variable

Extraneous variable

- Any variables other than the independent variable that seems likely to influence the dependent variable in a specific study

- Ex. In the study with the bridge and fear increasing sexual attractiveness, their personality or risk-taking propensity is an extraneous variable because some like heights and fear and therefore would have chosen to do the bridge walk themselves
- How to control extraneous roots: random assignment
 - Occurs when all subjects have an equal chance of being assigned to any group or condition in study

Confounding variable

- 2 variables are linked together in a way that makes it difficult to sort out their specific effects
- When an extraneous variable is confounded with an independent variable, researcher can't tell which is having an effect on the dependent variable

Designing experiments

- Within-subjects design: same group of people are used for controlled and experimental groups
- Between subject design: use 2 different groups for control and experimental
- It is possible to manipulate more than one independent and dependant variable in an experiment

Advantages and disadvantages of experimental research

Advantage	Disadvantage
<ul style="list-style-type: none"> • Permits conclusions about cause-and-effect relationships between variables • Can isolate independent and dependant variable while neutralizing extraneous variables 	<ul style="list-style-type: none"> • Experiments are often artificial Require great control to they have to make simple situations • To overcome this they do field experiments: studies that use settings like real life • Can't be used to explore some questions

Descriptive/Correlation Research

- Use naturalistic observation, case study and survey
- Researcher cant manipulate variables under study
- Cant demonstrate cause and effect relationship between variables
- Only describe pattern of behavior and discover links between variables
- Ex. If they want to study healthy and unhealthy diets for expecting mothers they are not going to have a mother eat bad food

Naturalistic observation

- Researcher engages in careful observation of behavior without intervening directly with subjects
- Allowed to unfold without interference
- Ex. To see how many people stop at yellow lights
- EAR(electronically activated recorder) portable audio recorder used to record convos
- Advantage: study behavior under conditions less artificial then experiments, also it's a good start if not much is known
- Problem: researchers have trouble making their observations unobtrusively so they don't affect participants behavior and its hard to translate data into numerical
- Reactivity: subjects behavior is alerted by presence of an observer

Case studies

- In-depth investigation of an individual subject
- When applied to victims of suicide it's called psychological autopsies
- Interview subject and/or family members and health care professionals

- Problem: they can be highly subjective
 - Researchers have to look at diff info and put it together and they can be selective about this which is why it's easy for them to see the results they expect

Survey

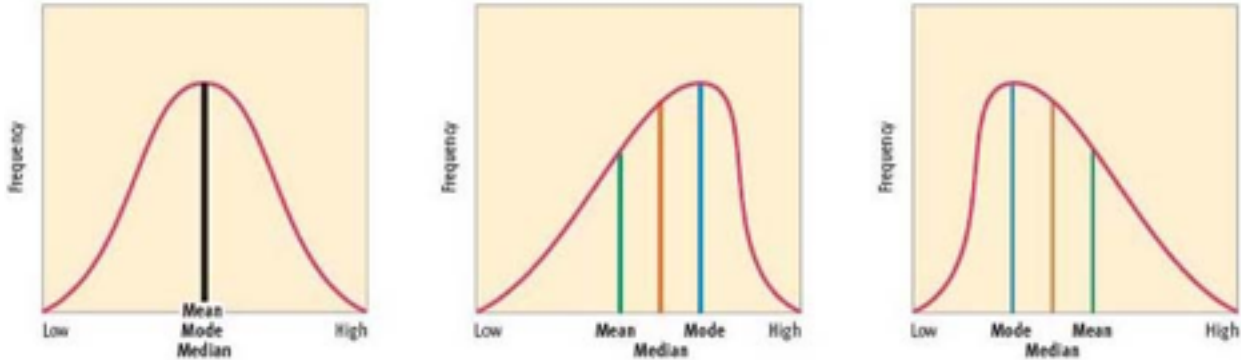
- Use questions or interviews to get info about behavior
- Used to get info on things hard to observe
- Problem: depend on self-report data

Overview of key research methods in psych				
Research method	Description	Example	Advantages	Disadvantages
Experiment	Manipulation of an independent variable under carefully controlled conditions to see whether any changes occur in dependent variable	Youngsters are randomly assigned to watch violent or non violent films, and their aggression is measured in a laboratory situation	Precise control over variables; ability to draw conclusions and cause-and-effect relationships	Contrived situations often artificial; ethical concerns and practical realities prelude experiments on many important questions
Naturalistic observations	Careful, usually prolonged observation of behavior without direct intervention	Youngsters' s spontaneous acts of aggression during recreational activities are observed unobtrusively and recoded	Minimizes artificiality; can be good place to start when little known about study	Often difficult to remain unobtrusive; can't explain why certain patterns of behavior were observed
Case study	In-depth investigation of a single participant using direct interview, direct observation and other data collecting techniques	Detailed case histories are worked up for youngsters referred to counseling because of excessive aggressive behavior	Well-suited for study of certain phenomena; can provide compelling illustrations to support a theory	Subjectively makes it easy to see what one expects to see based on one's theoretical slant; clinical samples often unrepresentative

Surveys	Use of questionnaires or interviews to gather information about specific aspects of participants behavior	Youngsters are given questionnaires that describe hypothetical scenarios and are asked about the likelihood of aggressive behavior	Can gather data on difficult-to-observe aspects of behavior; relatively easy to collect data from large samples	Self-report data often unreliable, due to intentional deception, social desirable bias, responsive sets, memory lapse, and wishful thinking
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Statistics and research

- Statistic: use of math to organize, summarize and interpret data
- Descriptive statistics: used to organize and summaries data
 - 3 measure of central tendency:
 - Median: falls exactly in center
 - Mean: average
 - Mode: most occurring



Variability

- How much the scores of a set of data vary from one another and the mean
- Use range (subtract highest score from lowest)
- Standard deviation: amount of variability for a set of data
- Normal distribution: symmetrical, bell shaped curve
- Percentile score: indicated percent of people who score at or below a particular score
 - If you score 60th percentile then 60% are at the same level or below you and 40% above you

Correlation

- Exists when 2 variables are related to each other
- Coefficient indicates direction of relationship and how strongly they are related
- Positive vs. negative correlation
 - Pos correlation: same direction
 - X increase y increase
- Negative correlation
 - Opposite direction
 - X increase y decrease
- Strength of correlation
 - Size of coefficient indicates strength
 - Close to 0 means no relationship (x increase, nothing happens to y)
 - +/- 1.00 indicates perfect one-to-one relationship
 - Closer it is to 1, ability to predict one variable based on knowledge of other variable increases

- o Higher correlation doesn't mean there is a cause and effect relationship
 - Ex there is a correlation between size of feet and size of vocabulary- instead they are caused by a 3rd variable: age

Inferential statistics

- Used to interpret data and make conclusions
- Statistically significant: when calculations indicate the results are not because of chance (very low meaning less than 5 in 100)

Evaluating research

- Research is not free of errors
- Could happen because of bias
- Replication: repetition of a study to see whether earlier results are duplicated

Meta-analysis

- results from multiple studies put together
- Researcher analyses the result of studied that already happened

Sampling bias

- Sample: collection of subjects selected for study
- Population: much larger collection of people (from which sample drawn)
- Sampling bias: exists when sample isn't representative of the population from which it was drawn

Placebo Effect

- Placebo is pharmacy substance that resembles drug but isn't one
- It occurs when participants expectations lead them to experience some changes even though they receive fake treatment
- Ex. They gave participants 'alcohol' and they thought they were drunk but it wasn't really alcohol

Distortions in self report data

- Self report: subjects verbal accounts of their behavior i.e. interview
- Problems: people try to live up to a standard and so they work hard to make their results like that (bias)
- Response set: tendency to respond to questions in a particular way that is unrelated to the content of the question
 - o Ex. Some people answer yes to every question
- Halo effect: ones overall evaluation of a person, object etc spills over to influence more specific ratings

Experimenter bias

- Researchers expectations about outcome of study influence results obtained
- Try to make hypothesis come true
- Ex. In experiment 2 groups given same picture, one was told they were good one told they were bad, and their ratings were swayed by this fact
- Solved by using double-blind procedure: neither subject nor experimenter know which subjects are in experimental or controlled group

Internet and research

- Benefit: easy, fast, not a lot of work, a lot of people do it
- Con: don't know the environment the person is at when at home (if they are distracted), more teenagers on internet then older people

Ethics

- Major ethical concern on use of deception for research
- Patients never told about experiment and therefore their consent wasn't needed to do unethical things
 - Did this because they didn't want patient to be uncomfortable

Ethical guidelines in Canada

- Canadian Psychology Association (CPA)
- Say high school who need consent from parents are bias in surveys about substances and sexuality
- Key principles of CPA's code of ethics
 - Principle 1: respect for the dignity of persons
 - Principle 2: responsible caring
 - Principle 3: integrity in relationships
 - Principle 4: responsibility in society

Anecdotal evidence

- Personal stories about specific events/experiences (case study)
- They are very persuasive

Appendix B: Statistical Methods

- Empiricalism depends on observation ; precise observation depends on measurements; and measurements depend on numbers
- Statistics: use math to organize, summarize and interpret data

Graphing data

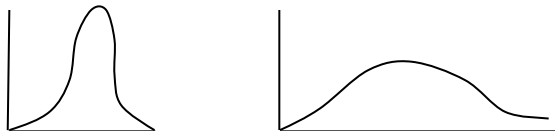
- Frequency distribution: orderly arrangement of scores indicating the frequency of each score or group of scores
 - Make a tally chart and then write the number of tallies is the frequency
- Histogram: bar graph that represents frequency distribution
- Frequency polygon: line figure used to represent data from a frequency distribution (line graph)
- Descriptive statistics: used to organize and summaries data

Measuring central tendency

- Mean: average
- Median: middle
- Mode: most occurring
- Negatively skewed: more scored at high end of scale
- Positively skewed: more results at low end of scale

Measuring variability

- How much the scores vary or depart from mean
- Standard deviation: index of amount of variability in a set of data



- First one has less variability because scores bunched up

The normal distribution

- Symmetrical, bell-shaped curve
- Not a law of nature
- Relative measures: assess people compared to other people
- Percentile score: percentage of people above or below a certain point

Measuring correlation

- Correlation coefficient: numerical index of degree of relationship between 2 variables
- Scatter diagram: paired x y scores are plotted as single points
- When correlation perfect (+-1 then fall into a straight line

Correlation and prediction

- Coefficient of determination: percentage of variation in one variable that can be predicted based on other
 - Calculated by squaring correlation coefficient

Hypothesis testing

- Inferential statistics: used to interpret and draw conclusions
- Is the sample size too small then it might not represent the population correctly and results may be by chance
- Formally test the null hypothesis: assumption that there is no real relationship between variables observed

Statistical significance

- When null hypothesis rejected, can say found statistically significant results
- Statistically significance: when probability that the observed findings are due to chance is very low (fewer than 5 chances in 100)

Chapter 3: The Biological Bases of Behavior

- Nervous system is a complex communication network in which signals are being transmitted, received and integrated

Nervous tissue

- Nervous system is living tissue composed of cells
- Cells fall under 2 categories:

Glia	Neurons
<ul style="list-style-type: none">• Cells found throughout nervous system that provide support for neurons• Smaller than neurons but outnumber them• Supply nourishment to neuron, remove waste, and provide insulation	<ul style="list-style-type: none">• Individual cells that receive, integrate and transmit information• Permit communication within nervous system• Soma (cell body) contains cell nucleus• Dendrites-specialized in receiving info• Axon: transmits signals away from soma to other neurons or muscles• Myelin sheath : insulating material made from glial cells that cover the axon• Terminal buttons: end of axon, release neurotransmitters• Synapses: point where neurons interconnect and info is shared from one neuron to another

Neuron at rest

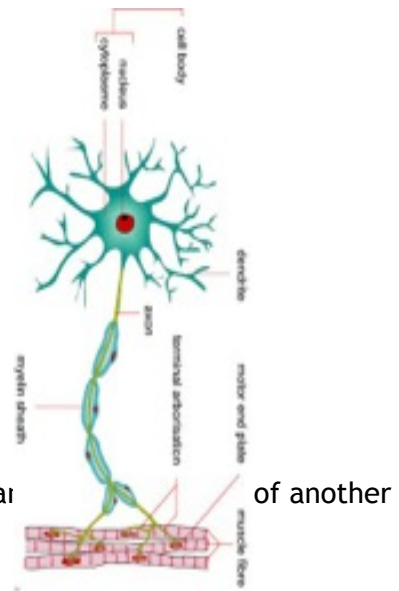
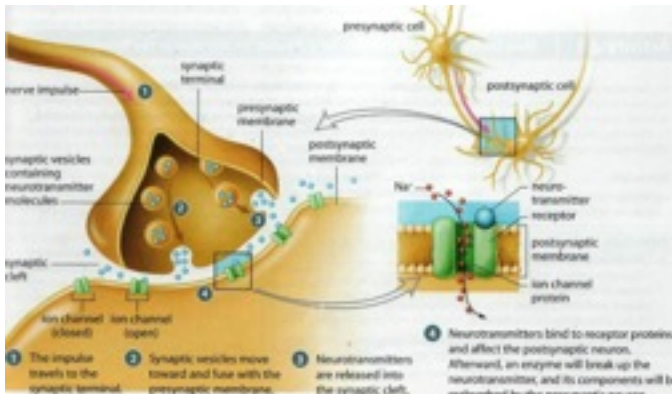
- Hodgkin and Huxley learnt impulse is electrochemical reaction
- Inside and outside neuron there are ions, since membrane is semi-permeable some of the ions go through
- Concentration gradient means stored potential energy
- Resting potential: stable negative charge when cell is inactive

Action Potential

- When neuron stimulated channels in membrane open up allowing ions to flow in creating action potential
- Absolute refractory period: time where action potential just occurred so another one can't occur for a certain amount of time

All or none law

- All action potentials are the same size
- Weaker stimuli don't produce smaller action potentials
- They can however affect rate of which they fire



synaptic cleft
of one neuron at
termination

of another

Postsynaptic neuron: neuron that receives signal

- Action potential triggers release of neurotransmitters
- There stored in synaptic vesicles
- Postsynaptic potential (PSP): voltage change at receptor site on postsynaptic cell membrane
 - Not like all or none law, they increase or decrease in size
- 2 types of messages can be sent:
 - Excitatory: increases likelihood that neuron will fire action potential
 - Inhibitory: decreases likelihood that neuron will fire action potential
 - Excitatory adds up and inhibitory cancels it out and needs to see if enough excitatory for action potential to move on
- After response, neurons will drift away, be broken down by enzymes, or be reabsorbed through reuptake
- Synaptic pruning: removal of old or less-active synapse

Neural networks

- Donald Hebb
 - Realized neurons don't act alone in influencing behavior, but instead are linked in a network
 - Hebbian Learning Rule: talks about these linkages and how they might operate and come about
- Neurotransmitters work at specific synapses
 - Like lock and key transmitter has to fit into receptor site
- There are so many neurotransmitters because it makes communication more precise

Acetylcholine (ACh)

- Only transmitter between motor neurons and voluntary muscles
- Every move you make depends on ACh
- Not enough: memory loss
- Nicotine is an ACh agonist
- Agonist: chemical that mimics the action of a neurotransmitter
- Antagonist: chemical that opposes the action of a neurotransmitter
 - This means that muscles won't be able to move

Monoamines

- Includes 3 neurotransmitters: dopamine, norepineprine and serotonin
- Dopamine: used by neurons that control voluntary movements

- o Loss of such neurons causes parkinsonism (tremors, muscular rigidity, reduced control over voluntary movements)
- Serotonin: plays prominent role in sleep and wakefulness and eating behavior
 - o Can be related to aggression in humans
 - o Low levels cause eating disorders and OCD
- Low levels of norepinephrine and serotonin cause depression

GABA and Glutamate

- GABA widely distributed in the brain
 - o Involved in regulation of anxiety ad disturbances in GABA contribute to anxiety disorders
 - o Produce only inhibitory postsynaptic potentials
- Glutamate also widely spread out in brain
 - o Always has excitatory effects
 - o Contribution to memory and learning
 - o Disturbances lead to schizophrenic disorders

Endorphins

- Morphine (pain killer) binds to specialized receptors in brain
- Endorphins: internally produced chemical s that resemble opiates in structure and effect
- Endogenous opioids contribute to modulation of eating behavior and body’s response to stress
- Opiate drugs like heroin and morphine produce pleasurable feelings of euphoria
 - o Explains why drug is abused
- Body’s endorphins also give pleasurable feelings
 - o “runners high”

Peripheral Nervous System

- Nerves that lie outside brain and spinal cord
- Nerves: bundle of neuron fibers (axons) that are routed together
- Subdivided into:

Somatic nervous system	Autonomic nervous system
<ul style="list-style-type: none"> • Nerves that connect voluntary skeletal muscles to sensory receptors • Carry info from receptors in skin, muscles and joints to CNS and from CNS to muscles • Afferent nerve fibers: axons that carry info to the CNS • Efferent nerve fibers: axons that carry info from CNS to peripheral part 	<ul style="list-style-type: none"> • Nerves that connect to heart, blood vessels, smooth muscles and glands • Controls automatic, involuntary functions we don’t think about like heart rate, digestion • Fight or flight response • Split up into sympathetic and parasympathetic • Sympathetic: mobilizes body’s resources for emergencies • Slows digestion, blood drains from peripheral • Parasympathetic: conserves bodily resources • Slows heart rate, reduces blood pressure, promotes digestion

Central nervous system

- Consists of brain and spinal cord
- Protected by enclosing sheaths called meginges

- Cerebrospinal fluid: nourishes brain and provides cushion
- Spinal cord
 - Connects brain to rest of body
 - Extension of brain
 - Damage prevents signals from being transmitted

Research methods involving brain

1. Electrical recordings
 - Electrical activity of brain can be recorded like electrical readings of axon were recorded by Hodgkin and Huxley
 - Electroencephalograph (EEG): device that monitors electrical activity of brain over time by means of recording electrodes attached to surface of scalp
 - Attached to skull and brain waves recorded
2. Lesioning
 - Case study method
 - Problems with studying brain is that everyone's severity is different and their past experiences
 - Lesioning involves destroying piece of brain
 - Inserts electrode in brain and passes high frequency electric current through it to burn tissue and disable structure
3. Electrical stimulation of brain (ESB)
 - Involves sending weak electrical current to brain to activate/stimulate it
 - Surgeons may use this after they cut skull open so they don't slice through critical areas
 - Wilder Penfield specialty was surgical treatment of epilepsy
 - During surgery patients stayed awake and so he could map out brain activity
4. Transcranial magnetic stimulation
 - New technique that permits scientists to temporarily enhance/depress activity in specific area of brain
 - Magnetic field increases or decreases excitability of neurons to create "virtual lesions"
 - Suppress activity of certain part of brain and activates another area by getting the person to do a specific task to see if the virtual lesion interferes with working part of brain

Brain scanning

- Computerized tomography (CT): x-ray of brain structure
- Positron emission tomography (PET): maps actual brain activity over time and can examine brain function
- Magnetic resonance imaging (MRI): uses magnetic fields, radio waves to map out structure
 - Provide better image than CT scan
- Functional magnetic resonance imaging (fMRI): monitors blood flow and oxygen consumption in brain to identify high activity

Hindbrain

- Medulla: in charge of unconscious but vital functions
 - Circulation of blood, breathing, maintaining muscle tone
- Pons: connects brain stem with cerebellum
- Cerebellum: critical to coordination of movement and to sense equilibrium
 - Allows you to put arm out wide then touch your nose
 - Drunk drivers asked to do this because it's the first structure that stops working
 - Damage disrupts fine motor skill

Midbrain

- Lies between hindbrain and forebrain
- Contains area concerned with vision and hearing
- Includes dopamine releasing neurons

- Reticular formation: runs through hind and mid brain
 - Contributes to muscle reflexes, breathing, pain perception
 - Sleep and arousal

Forebrain

- Largest and most complex region
- Cerebrum: seat of complex thoughts
- Cerebral cortex: wrinkled surface of cerebrum , outer layer of brain
- Thalamus: all sensory info except smell must get through in order to get to cerebral cortex
 - Integrates info from various senses
- Hypothalamus: regulates basic biological needs
 - Lies beneath thalamus
 - Controls autonomic nervous system
 - Serves link between brain and endocrine system
 - Regulates: fighting, fleeing, feeding and mating

Limbic system

- Don't know which structure is a part of this
- Involved in regulation of memory, emotion and motivation
- Hippocampus: play a role in memory processes
 - Consolidation of memories for factual information
 - Prediction and imagination
 - Defect: leads to defects in predictive ability

Cerebrum

- Largest and most complex part of brain
- Learning, remembering, thinking, conscious
- Cerebral cortex: outer layer
- Corpus callosum: connects 2 hemispheres of brain
- Each hemisphere divided into 4 parts called lobes
 - Occipital lobe: visual signals, visual processing
 - Parietal lobe: registers sense of touch, sense of space
 - Temporal lobes: auditory processing
 - Frontal lobe: controls movement of muscles

Plasticity of brain

- Refers to brain's ability to change structure and function
- Experience can sculpt structure
 - Ex. Musicians who use fingers, that part of brain enlarged
- Damage to one part of brain increases/enlarges other
- Adult brain can generate new neurons
 - Neurogenesis: formation of new neurons

Hemispheres

- Left side: verbal processing
 - Language, speech, reading, writing
 - Called it dominant half
 - Controls and communicates with right side of body
- Right: non verbal processing
 - Spatial, musical, visual recognition, colours, puzzles and perception of others emotions
 - controls left side of body

Split-Brain research

- Split-brain surgery: bundle of fibers that connect hemisphere is cut to reduce severity of seizures
- When study they showed patients picture quickly on one side
- When flashed on one side, the person wasn't able to name/describe same object when flashed on opposite side
- Prob: people they studied had epilepsy so their brain wasn't normal to begin with and only studied 10 people
- Maryse Lassonde is researching about people who just never had a corpus callosum
 - Realized the older you get the more mature and capable your corpus callosum
- Perceptual asymmetries: left-right imbalances between their cerebral hemispheres in the speed of visual or auditory processing

Endocrine system

- Glands that release hormones into bloodstream
- Hormones help control bodily functions
- Neural functions are very fast compared to hormonal messages which take time and are less specific since they can act on many target cells
- Hormone release is pulsatile: released many times a day in short bursts
- Controlled by NS through hypothalamus which is connected to pituitary gland
- Pituitary gland: releases hormones, "master gland"
- Oxytocin: hormone released by pituitary gland which regulates reproductive behavior
 - Triggers contractions, stimulates breast milk
 - Study showed that it increases males' empathy, and their trust

Hereditary and behavior

- Genes affect behavior
- Chromosomes: strand of DNA molecules that carry genetic info (23 pairs of chromosomes, come together to make 46)
- Zygote: single cell formed by egg and sperm
- Homozygous condition: 2 genes in specific pair are same (child does show that trait)
- Heterozygous condition: 2 genes in specific pair are different (doesn't show trait)
- Dominant: gene that expresses
- recessive gene that is masked
- genotype: person's genetic makeup
- phenotype: way in which a person's genotype is manifested in observable characteristics
 - can change over time
- polygenic inheritance: influenced by more than one pair of genes

Research methods to investigate hereditary influence

1. Family studies
 - examine blood relatives to see how much they resemble one another in a specific trait
 - closer family have a more similar genetic makeup and have a more similar environment similarity
2. twin studies
 - assess hereditary influence by comparing resemblance of identical twins and fraternal twins with respected trait
 - identical (monozygotic) twins: come from same zygote that splits in 2
 - so same genotype
 - fraternal (dizygotic) twins: 2 eggs 2 sperms 2 diff zygotes
 - 50% genetic relatedness
 - Can provide better evidence that trait influenced by hereditary compared to family studies
3. Adoption studies

- Assesses hereditary influence by examining resemblance between adopted children and both biological and adoptive parents
- Hereditary and environment have influence on intelligence
- Adopted kids resemble adopted parents because of environment and also genetic factors prob influenced he trait
- 4. Genetic mapping
 - Process of determining location and chemical sequence of specific genes on specific chromosomes

Hereditary and environment

- Epigenetic: study of heritable changes in gene expression that don't involve modification of DNA sequence

Darwin's insights

- Not the first person to describe evolution
- Natural selection is why things evolve
- Noticed:
 - Organisms vary in many ways
 - Some of these differences are heritable
 - Organisms produce off springs at a pace that's faster than the availability of food, shelter, resources
 - Organisms with heritable trait produce more off springs
- Survival of the fittest
- Process of natural selection works on populations not organisms
- Makeup of genetic pool shaped by: genetic drift, mutations, and gene flow
 - Genetic drift: random fluctuations in gene frequencies due to chance
 - Mutation: spontaneous, heritable change in DNA
 - Gene flow: happens when organisms leave and enter gene pool
- Adaptation: inherited characteristic that increases in pop because it solved problem of survival
- Inclusive fitness: sum of individuals reproductive success

Chapter 4

- People can determine which way is up by: visual, gravity and body direction
- Sensation: stimulation of sense organs
- Perception: selection, organization and interpretation of sensory input

PSYCHOPHYSICS: BASIC CONCEPTS AND ISSUES

- First experimental psychologists interested mainly in sensation and perception
 - Their area of interest was psychophysics (the study of how physical stimuli are translated into psychological experiences)

Thresholds: looking for limits

- Sensation begins with stimuli (any detectable input from environment)
- Gustav Fechner: wanted to know for any given sense whats the weakest detectable stimulus
 - Ex. What is the minimal amount of light needed for a person to see that there is light
- Threshold: a dividing point between energy levels that do and do not have a detectable effect
- Absolute threshold: for a specific type of sensory input, its the minimum amount of stimulation that an organism can detect
 - Noticeable difference from nothing (no stimulus input)

Weighing the differences: The JND

- Fechner also interested in people's sensitivity to differences between stimuli
- Just noticeable difference (JND): smallest difference in the amount of stimulation that a specific sense can detect (subtract the 2 numbers)
 - As stimuli increases in magnitude JND increases in magnitude
- Weber's law: the size of a noticeable difference is constant proportion of the size of the initial stimulus
 - Ernst Weber

Psychophysical Scaling

- If one light has twice the energy of another, is it twice as bright?
 - In order to make this kind of judgment you are scaling the magnitude of the sensory experiences
- Fechner used JND as his unit of measurement
- Fechner's law: magnitude of a sensory experience is proportional to the number of JNDs that the stimulus causing the experience is above the actual threshold
 - Constant increments in stimulus intensity produces smaller and smaller increases in perceived magnitude of sensation
 - Ex. In a dark room you turn 1 light bulb on, it makes a big difference, you turn the second one on and the amount of light is doubled but the room doesn't seem twice as bright, for the 3rd bulb you don't even notice a difference yet amount of light is increased
 - Perceptions can't be measured on absolute scale

Signal-Detection Theory

- Proposes that detection of stimuli involves decision processes as well as sensory processes, which are both influenced by a variety of factors besides stimulus intensity
- It replaces Fechner's sharp threshold with the concept of "detectability"
 - Detectability is measured in terms of probability and depends on decision-making processes as well as sensory processes

Perception without Awareness

- Subliminal perception: the registration of sensory input without conscious awareness
- Subliminal messages
 - Ex. Having 'eat popcorn' flash in a movie without anyone noticing increased popcorn sales
- Subliminal inputs can produce measurable, although small, effects in subjects who say they didn't notice the stimuli

Sensory Adaptation

- Influences registration of sensory input
- It's a gradual decline in sensitivity due to prolonged stimulation
- ex. If you have a garbage that smells really bad eventually you won't even notice the smell even though it's just as intense
- It's a built-in process that keeps people tuned in to the changes rather than the constants in their sensory input
- helps us avoid the obvious and detect threats
- probably a behavioural adaptation sculpted by natural selection

OUR SENSE OF SIGHT: THE VISUAL SYSTEM

The Stimulus: Light

- for people to see there must be light
- it's a form of electromagnetic radiation that travels as a wave
- varies in amplitude and wavelength

- o amplitude affects perception of brightness and wavelength affects perception of colour
- can vary in its purity which influences perception of richness of colours
- most objects reflect light not emit it
- light only includes the wavelengths humans can see

The eye

- 2 main purposes: channel light to neural tissue that receive it called retina and house that tissue
- Light enters eye through transparent 'window' called cornea
- Cornea and crystalline lens located behind it form an upside down image of objects on the retina
- Lens is the transparent eye structure that focuses the light rays falling on the retina
 - o Capable of adjustments that facilitate a process called accommodation
 - o Accommodation occurs when curvature of lens adjust to alter visual focus
 - When you focus on a close object lens of eye gets fatter (rounder) to give you clear image
 - When you focus on distant object lens flattens
- Visual deficiencies
 - o Nearsightedness: close objects are seen clearly but distant objects appear blurry
 - o Farsightedness: distant objects are clear but close objects are blurry
- Pupil: opening in center of iris that helps regulate the amount of light passing into the rear chamber of the eye
 - o When it constricts it gets less light into eye but creates a sharper image
 - Constricts in bright light
- Saccades: eye movements that are imperceptible to us
 - o When were looking at something our eyes are scanning the visual environment
 - o Essential to good vision
 - o If there is even a small reduction in this our vision degrades
 - o Measures gaze direction and attention

The retina: the brain's envoy in the eye

- Retina: neural tissue lining inside of back surface of the eye; it absorbs light, processes images, and sends visual
- It processes images but it's a piece of the central nervous system that's located in the eyeball
- Axons that run from the retina to the brain converge at the optic disk: hole in retina where optic nerve fibres exit the eye
 - o Because it is a hole you can't see the part of an image that falls on it (blind spot)
- Visual receptors: rods and cones
 - o Light sensing receptors in innermost layer of retina meaning light must pass through several layers of cells in order to get to receptors: only 10% reaches
 - o Humans have more rods than cones
 - o Cones: specialized visual receptors that play a key role in daylight vision and colour vision
 - Don't respond well to dim light which is why you don't see colour in dim light
 - Provide more sharpness and precise detail than rods
 - Fovea: tiny spot on center of retina that contains only cones; visual acuity is greatest here
 - o Rods: specialized visual receptors that play key role in night vision and peripheral vision
 - Because they are dense around the areas of the fovea, in order to see a faint object in the dark look above or below it

- Dark and light adaptation
 - Dark adaptation: process in which eyes become more sensitive to light in low illumination
 - Eyes adjust to the dark
 - Light adaptation: eyes become less sensitive to light in high illumination
 - These adaptations sue in large part to chemical changes in rods and cones
- Information processing in the retina
 - Light strikes retina's receptors (rods and cones) → sendds impulses to optic nerve (collection of axons that connect the eye with the brain) → carry info to brain
 - Receptive field:retinal area that, when stimulated, affects the firing of that cell
 - When receptive fields are stimulated, retinal cells send signals both towards brain and laterally (sideways) towards nearby visual cells
 - Lateral antagonism: occurs when neural activity in a cell opposes activity in surrounding cells
 - Allows retina to compare light falling in a specific area against general lighting
 - Ex. If you stare at boxes that all have spots in center, if you stare at one for a while then that one will disappear

Vision and the brain

- Light falls on eye but you see with brain
- Visual pathways to brain
 - Optic chiasm: the point at which the optic nerves from the inside half of each eye cross over and then project the opposite half of the brain
 - This ensures signals from both eyes go to both hemispheres of the brain
 - Axons leaving back of each eye form optic nerves → optic chiasm → 2 possible pathways
 1. Projects into thalamus → visual signals processed in lateral geniculate nucleus (LGN) → distributed to areas in occipital lobe that make up primary visual cortex
 - Main visual pathway subdivided into 2 more pathways: magnocellulas (info about brightness) and parvocellular channels (perception of colour)
 - Channels engage in parallel processing: involves simultaneously extracting diff kinds of info from the same input
 2. Area in midbrain called superior colliculus → thalamus → occipital lobe
- Information processing in the visual cortex
 - Located in the occipital lobe
- David Hubel and Torsten Wiesel
 - Placed microelectrodes in primary visual cortex of animals to see potential
 - Showed cat a spot on a film and had no response but when a scratch was moved into cell's receptive feild, the cell fired like crazy
 - Discovered: individual cells in primary visual cortex don't really respond much to little spots, they are much more sensitive to lines, edges and other more complicated stimuli
 - Identified various types of specialized cells in primary visual cortex that respond to different stimuli
 - Cells in visual cortex= feature detectors: neurons that respond selectively to very specific features of more complex stimuli
 - Most theroists say visual stimuli could always be represented using lines
- After visual input is processed in the primary visual cortex, its often routen o other cortical areas for more processing
 - Travel through 2 streams:

- Ventral streams: processes the details of what objects are out there (form and colour)
 - Dorsal streams: processes where the objects are (motion and depth)
- As signals go down the visual processing system they get more specialized and more fuzzy
- Cortex has face detectors
- Discovery of 'what pathway' responds to faces
- Visual agnosia: inability to recognize objects
 - Even though eyes function just fine
 - Damage somewhere along the visual pathway
- Prosopagnosia: inability to recognise familiar faces
 - Including own face
 - Aspects of visual processing are largely unimpaired
 - Heightened ability to recognise voices
- Neurons can be trained to be responsive to other visual forms than faces
- Methods in vision research
 - Functional magnetic resonance (fMRI)
 - Observing people who have brain damage
 - McCollough effect: after image phenomenon
 - Depends on colour and pattern
 - If you were shown a red striped circle and a green striped circle and then later a black and white striped circle you would see the red and the green colours inside the white and black strips

Viewing the World in Colour

- The stimulus for colour
 - Longest wavelength: red, shortest: violet
 - Colour is psychological interpretation, it isn't a physical property of light itself
 - Colour depends on 3 properties of light
 - Wavelength is most closely related to hue, amplitude to brightness, and purity to saturation
 - 2 kinds of colour mixture:
 - Subtractive colour mixing: removing some wavelengths of light, leaving less light than was originally there
 - Pigments absorb most wavelengths and selectively reflect some
 - Additive colour mixing: superimposing lights, putting more light into the mixture than exists in any one light by itself
 - Shine red, green and blue light onto a white surface
- Trichromatic theory of colour vision
 - First settled by Thomas Young and modified later by Hermann von Helmholtz
 - Says human eye has 3 types of receptors with differing sensitivities to different wavelengths
 - People can see all the colours in the rainbow because the eye does its own 'colour mixing'
 - Primary colour is all you need to make any colour
 - Colour-blindness: encompasses a variety of deficiencies in the ability to distinguish among colours
 - Name is incorrect, only few people are fully colour blind
 - Most are dichromats: make do with only 2 colour channels
- Opponent process theory of colour vision
 - Complimentary colours: pair of colours that produce grey tones when mixed
 - If you stare at a strong colour then look at a white paper you'll see an afterimage
 - It will be the complement of the colour you originally stared at
 - The opponent process theory of colour vision:
 - Ewald Hering

- Colour perception depends on receptors that make antagonistic responses to 3 pairs of colours
 - 3 pairs of colours: red vs green, yellow vs blue, black vs white
 - Explains why we need 4 colours (red, green, blue and yellow) to describe colours
- Recoupling theories of colour vision
 - o Takes both trichromatic theory and opponent process theory to explain colour vision
 - o George Wald: the eye has 3 type of cones
 - Each type is sensitive to a different band of wavelength

Chapter 5: Variations in Consciousness

- Somniloquy: talking in your sleep
- Narcolepsy: sleep disorder where people fall asleep uncontrollably during the day
- More sleep has a positive effect: better behaviour, less accidents, better emotionally, grades
- Men get less sleep than women
- Those with higher income, are married and have children get less sleep

The nature of unconsciousness

- Consciousness: awareness of internal and external stimuli
- William James: consciousness is continuously changing (stream of consciousness)
- Francis Crick: won Nobel Prize for examining DNA

Variations in awareness and control

- Kosh and Tsuchiya: attention and conscious closely related but not identical, you can have one without the other
- Mind wandering: peoples experience of task-unrelated thoughts
 - o Thoughts that are not related to what the person is doing
- Controlled vs. automatic processes: what we control about our mental processes and what just seems to happen

Unconscious thought effects

- Theory of unconscious thought: Ap Dijksterhuis
 - o Under some circumstances where we don't have the opportunity to think, our decisions may be more accurate
 - o Attention is the key to distinguish between conscious and unconscious

Consciousness and brain activity

- Use EEG to determine link between brain activity and levels of consciousness
- Brain waves vary in amplitude and frequency
- Brain wave activity divided into 4 principle bands: beta (13-24 cps; problem solving) , alpha (8-12 cps; meditation, deep relaxation), theta (4-7 cps; light sleep) and delta (under cps; deep sleep)
- The type of wave that is dominant depends on the activity you are doing

Biological rhythms and sleep

- William Dement: created first modern lab dedicated to sleep
- Variations in consciousness are shaped in part by biological rhythms
- Biological rhythms: periodic fluctuations in physiological functioning
- Existence of these rhythms means organisms have biological clocks

Role of circadian rhythms

- Circadian rhythms: 24 hour biological cycles found in humans and many other species

- o Influence regulation of sleep
 - o Affects body temperature, hormonal secretion
- Finding your ideal time to sleep will promote better quality of sleep
- “morning person” and “night person” reflect person's circadian rhythm
- It goes on even when a person is put into complete darkness
 - o But cycle runs a bit longer 24.2 hours
- Exposure to light readjusts people's biological clocks
- Exposure to light → receptors in retina send info to suprachiasmatic nucleus (SCN) in hypothalamus → sends signal to pineal gland → secretes melatonin → adjusts biological clocks
- Circadian rhythms in humans regulated by multiple internal clocks, with central pacemaker located in SCN

Ignoring circadian rhythms

- If you sleep later than usual you get sleep debt and for everything to return to normal you must sleep the amount of time that was missed
- Jet lag caused by getting out of sync with circadian rhythms
 - o Sleep at wrong time
 - o If you do this a lot then can cause stress and heart disease
 - o Readjustment takes a day for every time zone traveled
 - o Readjustment easier when travelling west because it lengthens your day
- Shift workers get less sleep because when they do sleep it's of a poorer quality

Melatonin and Circadian Rhythms

- Melatonin: hormone that regulated the biological clock
- Can reduce effects of jet lag (but research results inconsistent)
 - o Inconsistent because dosage has to be given at certain time
- Bright light administration and circadian-friendly rotation schedules can help reduce negative effects of rotating shifts
 - o But bright lights isn't realistic in many work places
 - o When creating schedule they should try to get later starting times

The Sleep and Waking Cycle

- in the lab the subjects are hooked up to an EEG, EMG (electromyography, which records muscular tension and activity) and an EOG (electrooculograph, which records eye movement)

Non-REM (NREM): stage 1-4

- absence of rapid eye movement, little dreaming, varied EEG activity
- No obvious transition between being awake and falling asleep
- Length of time it takes to sleep depends on how tired they are, location, sound, age etc
- Stage 1: transitional stage of light sleep which lasts 1-7 minutes
 - o Breathing and heart rate slows, muscle tension and body temp decline
 - o Alpha waves turn to theta waves
 - o Hypnic jerks: brief muscular contractions
- Stage 2: brief bursts of high frequency brain waves called sleep spindles occur
 - o Lasts 10-25 minutes
 - o Brain waves become higher in amplitude and lower in frequency
- Stage 3 and 4: slow wave sleep (SWS)
 - o High amplitude, low frequency delta waves
 - o Reach this stage in half an hour and stay in the stage for half an hour
 - o Then cycle repeats

REM sleep (Rapid Eye Movements)

- 5th stage of sleep
- High frequency, low amplitude, vivid dreaming
- Side to side movements of eyes that occur with closed eyes
- Little ripples go across closed eyelids
- Was discovered accidentally by Nathaniel Kleitman
- Deep stage of sleep where it's hard to wake people up from
- However the brain has high frequency beta waves that resemble people that are awake and alert
- Irregular breathing and pulse rate
- Muscles so relaxed that person is pretty much paralysed
- Dreams that are remembered occur here
- Carlyle Smith's research suggests brain activity during sleep is central to consolidation of info acquired during day
 - Each stage is responsible for different task
 - E.g. Stage 2 is for motor type task, REM is for logic type task

Repeating the Cycle

- Repeat sleep cycle about 4 times
- First REM short (few minutes), then gets longer to 40-60 min
- NREM intervals tend to get shorter
- Slow wave sleep occurs early in sleep cycle and REM tends to pile up in second half
- 15-20% of sleep time in slow wave and 20-25% time in REM

Age Trends in Sleep

- New born babies only have 2 stages
 - REM and non-REM
 - Sleep 6-8 times a day for over 16 hours in total
 - Spend more time in REM sleep (50%)
 - As they grow REM decreases until 20%
- As people age REM sleep stays constant while slow wave sleep declines rapidly and time spent in stage 1 increases
 - Why elderly usually sleepless and wake up more in the night

Neural Bases of Sleep

- Rhythm of sleep and waking regulated by subcortical structures
- One brain structure that is important to sleep and wakefulness is reticular formation located in core of brain stem
- Ascending reticular activating system (ARAS) consists of afferent fibers running through the reticular formation that influences physiological arousal

Sleep Restriction

- Partial sleep deprivation or sleep restriction: when you have less than normal (or less than 5 hours) of sleep for a period of time
- Although sleep deprived people feel normal and more focused and feel like they are performing fine, they are actually performing below normal
 - This is why tired drivers don't pull to the side of the road when they are tired

Selective Deprivation

- You get NREM sleep but wake up right before going into REM
- Little impact on day time functioning and task performance but does have effect on subjects pattern of sleeping
- As night goes by person falls into REM sleep much more faster and more frequently

- When you stop sleeping like this you experience rebound effect
 - Spend extra time in REM periods to make up for deprivation
 - Same goes if they were to be woken up from slow-wave sleep
- Conclude: people have strong needs for REM and slow-wave sleep
- Why do we need REM and slow-wave sleep?
 - Contributes to firming up learning that took place that day (called memory consolidation)
- REM sleep appears to foster neurogenesis (formation of new neurons)
 - Makes sense because neurogenesis contributes to learning

Sleep Loss and Health

- Sleep restriction triggers hormonal changes that cause hunger
 - Increase obesity
- Impaired immune system functioning
- Short sleep increased risk for diabetes, hypertension, cardiovascular disease
- Less than seven hours show mortality risks but people who sleep more than 10 hours show higher mortality risks

Sleep disorders

- Insomnia: chronic problem in getting adequate sleep
 - Difficulty falling asleep, remaining asleep and persistent early morning awakening
 - 50% more common in women than men
 - Causes: excessive anxiety and tension, emotional problems like depression, back pain, ulcers, asthma, drug use
 - Primary cause: higher level of physiological arousal than average person
 - Treatment: sleep medications but these meds make people tired and sluggish and will become less effective
- Narcolepsy: disease marked by sudden and irresistible onsets of sleep during normal wake periods
 - Go from direct wakefulness to deep REM sleep for 10-20 min
- Sleep apnea: frequent, reflexive gasping for air that awakens person
 - Person stops breathing for a minimum of 10 seconds
 - Happens at least 5 times a night
 - May be treated through life style changes
- Nightmares: anxiety-aroused dreams that lead to awakening usually from REM sleep
- Night terrors: abrupt awakening from NREM sleep accompanied by intense autonomic arousal and feeling of panic
 - Let out a cry, bolt upright and then stare off into space
 - Panic goes away and person can fall asleep quickly
 - Temporary problem
- Somnambulism (sleep walking): occurs when person arises and wanders about while remaining asleep
 - Occurs first 2 hours of sleep, when individuals are in slow-wave sleep
 - Cause unknown but may be genetic
- REM sleep behaviour disorder (RBD): potential troublesome dream enactments during REM periods
 - People will talk, yell, leap out of bed during REM sleep
 - Dreams are violent and often hurt themselves or bed partners

The Content of Dreams

- dreams seem exciting because people only remember their bizarre ones
- we almost always dream from first person perspective
- guys have more pos dreams than girls

- dreaming develops
- little kids have dreams with no story line but as they get older around 11-13 they start having adult like dreams

Links between Dreams and Waking Life

- what you dream about is affected by your real life
- not every event in day life have an equally likely chance to affect a dream content
- Freud often noticed waking life often spilled into dreams and he labelled this the day residue
- In an experiment the person spilt water on subjects hand while in REM sleep and they said they dreamt of water in some way
- Lucid dreams: when people realise there dreaming while there still asleep and sometimes they can control it

Theories of Dreaming

- Many theories try and explain why we dream
- Freud: purpose of dream is wish fulfilment
 - But true meaning of dreams might be disguised
 - But research hasn't provided much support
- Rosalind Cartwright: dreams provide opportunity to work through everyday problems
 - Dreams allow people to engage in creative thinking about problems because dreams aren't restrained by logic or realism
 - Doesn't mean they are dreaming of solutions
- J. Allan Hobson and Robert McCarley: dreams by product of bursts of activity emanating from subcortical areas in brain
 - Dreams are side effects of "wide awake" brain waves during REM
 - Activation synthesis model
 - Story created to make sense of internal signals
 - Prob: can't accommodate for the fact dreaming occurs outside of REM

Hypnosis

- James Braid: thought could use hypnosis for surgery
 - When anesthesia found, hypnosis died out
- Procedure that produces heightened state of suggestibility
 - Like when they swing a pendulum in front of you saying you are getting sleepy...
- Some people can't get hypnotised and some fall in and out of state without being aware
- In order to be responsive to hypnosis you must be able to reduce peripheral awareness, accept direction, and separate perception and memory from consciousness

Hypnotic Phenomena

- Anesthesia: some can withstand treatments that would normally be painful
- Sensory distortions and hallucinations: may have senses and reality distorted
- Disinhibition: make people act ways they would never otherwise act
- Posthypnotic suggestions and amnesia: suggestions made during hypnosis will come true later

Theories of Hypnosis

Social-cognitive Theory of Hypnosis

- People just act the way they think hypnotics are suppose to act
- It's the subjects role of expectations not actual hypnosis
- Proof: a lot of the things they are asked to do can be done by people that aren't under hypnosis and when it comes to memory stuff they end up completely making up things

Hypnosis as an Altered State of Consciousness

- Dissociation: splitting off mental processes into 2 separate simultaneous streams of awareness
- Hypnotic stuff works because the pain isn't registered in the part of consciousness that communicates with people

Meditation

- A family of practices that train attention to heighten awareness and bring mental processes under great voluntary control
- 2 ways:
 - Focused attention: focus on image, object or bodily sensation
 - Open monitoring: think of experiences in non-judgmental ways
- Alpha and theta waves become prominent
- Breathing and carbon dioxide emission lessen
- Reduces stress and enhances immune system, improves focus
- Alterations in brain structure is why there is an increase in pain tolerance

Principle Abused Drugs

- Street drugs are psychoactive: chemical substances that modify mental, emotional or behaviour function
- Drug use for 15-25 year olds is 3 times higher than people over 25
- Binge drinking: 5 or more drinks in a single session

Drug	Medical Use	Desired Effects	Short-Term Side Effects
Narcotics	Pain relief	Relaxation, pain relief	Drowsiness, nausea, impaired coordination
Sedatives	Sleeping pills	Relaxation, anxiety reduction	Emotional swings, drowsy, nausea
Stimulants	Hyperactivity and narcolepsy, local anesthetic (cocaine)	Excitement, alertness, increase energy, less tired	Increase BP and heart rate, more talking, can't stay still
Hallucinogens	None	Increased awareness, euphoria, altered perception, hallucination, insightful experiences	Dilated pupils, nausea, emotional swings, paranoia, jumbled thought process, panic reaction
Cannabis	Treatment of glaucoma and chemotherapy induced vomiting	Mild euphoria, enhanced awareness, altered perception	Blood shot eyes, increase heart rate, reduced short term memory, anxiety
Alcohol	None	Mild euphoria, relaxation, anxiety reduction	Impaired coordination, mood swings, depression

- Ecstasy is a MDMA
 - Short lived high
- They either block reuptake, release more neurotransmitters or bind to receptors
- Physical dependence: person must continue to take drug to avoid withdrawal illness

- o Can produce fever, chills, vomiting, pains
- Psychological dependence: person must continue to take drug to satisfy intense mental and emotional cravings
- Direct effect: physiological damage
 - o Tissue damage
 - o Increase chance of heart attack stroke
 - o More with alcohol and cocaine
- Indirect effect: health-impaired behaviour
 - o Impact on attitude and behaviour
- Overdose: respiratory system stops, coma, brain damage, death, heart attack, stroke

Chapter 12: Personality: Theory, Research, and Assessment

Defining personality: Consistency and Distinctiveness

- Optimistic personality: cheerful, hopeful, better side of things
- Personality explains why people act differently in the same situation
- Personality used to explain: stability in person's behaviour over time and across situations (consistency) and the behavioural differences among people reacting in same situation (distinctiveness)
- Personality: individual's unique constellation of constant behavioural traits

Personality Traits: Dispositions and Dimensions

- Factor analysis: correlations among many variables are analyzed to identify closely related clusters of variables
- There is a single factor that influences a set of traits
- Cattell said that individuals personality can be measured just by 16 traits

Five Factor Models of Personality Traits

- Robert McCrae and Paul Costa
- "The Big Five"

Extraversion	<ul style="list-style-type: none"> • Outgoing, sociable, upbeat, friendly • Positive emotionally and have positive outlook on life • Popularity and dating more people
Neuroticism	<ul style="list-style-type: none"> • Anxious, hostile, self-conscious, insecure, vulnerable • Overreact more in stressful situations • Elevates likelihood of divorce • Increase risk of mental disorders and physical illness
Openness to experience	<ul style="list-style-type: none"> • Curiosity, flexibility, vivid fantasy, imaginativeness, artistic • Less need for closure on issues than others • Associated with playing an instrument
Agreeableness	<ul style="list-style-type: none"> • Sympathetic, trusting, cooperative, modest, straight forward, empathy and helping behaviour • Constructive approach to conflict resolution
Conscientiousness	<ul style="list-style-type: none"> • Diligent, disciplined, well organised, punctual, dependable • Strong self discipline and ability to regulate oneself effectively • Greater honesty, higher job performance ratings, relatively low alcohol consumption, higher grades • Less illness, reduced mortality

- Personality theories: psychodynamic perspectives, behavioural perspectives, humanistic perspectives and biological perspectives

PSYCHODYNAMIC PERSPECTIVE

- Sigmund Freud
- Focuses on unconscious mental forces

Freud's Psychoanalytic Theory

- Grew up in Vienna, Austria
- Trained as medical doctor in neurology
- Eventually devoted himself to treatment of mental disorders using psychoanalysis
- Received scientific training with Ernst Brucke which lead him to make psychoanalysis a science
- This theory attempts to explain personality, motivation, and psychological disorders by focusing on early childhood experiences, on unconscious motives and conflicts, and methods people use to cope with sexual and aggressive urges
- People uncomfortable with his theory
 - Behaviour controlled by unconscious factors which they are unaware
 - Individuals are not masters of their own mind
 - People are not masters of own destiny because they are shaped by childhood experiences
 - Emphasised importance of sexual urges and people were uncomfortable with this
- Divided personality into 3 components:

Id	<ul style="list-style-type: none"> • Primitive, instinctive compound of personality that operates according to the pleasure principle • Houses raw biological urges (to eat, sleep, defecate etc) • Operates according to the pleasure principle: demands immediate gratification of its urges • Engages in primary-process thinking which is primitive, illogical, irrational, and fantasy-oriented • Unconscious
Ego	<ul style="list-style-type: none"> • Decision-making component that operates according to reality principle • Forceful desire of immediate gratification but has expectations and norms regarding behaviour • Considers social realities (rules, customs, norms) before making decisions • Reality principle: seeks to delay gratification of the id's urges until appropriate situations can be found • Secondary-process thinking: rational, realistic and oriented towards problem solving • Strives to avoid negative consequences from society
Super-ego	<ul style="list-style-type: none"> • Moral comp of personality that incorporates social standards about what represents right and wrong • People learn what is good and what is bad in childhood • Super-ego emerges from ego at 3-5 years of age • Can become demanding in its strive for moral perfection • Excessive feeling of guilt

- Revealed existence of unconscious
 - Said 'slip of tongue' reveals peoples true feelings
- Levels of awareness

Conscious	<ul style="list-style-type: none"> • Whatever one is aware of at a point in time
Preconscious	<ul style="list-style-type: none"> • Material just under surface of awareness that can be easily retrieved • Like your middle name, what you had to eat last night ect

Unconscious	<ul style="list-style-type: none"> Thoughts, desire, memory that is well below surface of awareness but influence behaviour greatly Forgotten trauma as a child, hidden feelings of hostility towards parents
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- Compared mind to iceberg
 - Most mass hidden under surface of water
 - Unconscious is much larger than conscious or preconscious
 - Ego and super ego operate at all 3 levels of conscious whereas id is only unconscious
- Behaviour an outcome of ongoing battles within you between id, ego and super ego
 - Ex. 7am your alarm rings, your id will want to shut it off and go back to dreaming, your ego will be like no you need to get up because you don't understand the material in class and just as your about to relax your superego says that you should feel bad about all the money your parents are spending on your tuition and you're in bed
- He focused on sex and aggression because these things weren't talked about much back then and so people were getting mixed messages about what is important
 - Also they are pushed to the side more than other drives

Anxiety and Defence Mechanism

- Most internal conflicts can be resolved quickly, but the ones that linger produce anxiety that slips to conscious awareness
- Can attribute to ego worrying about:
 - Id getting out of control and doing something terrible
 - Superego getting out of control and making you feel guilty about real or imagined transgression
- To get rid of anxiety we use defence mechanisms
- Defence mechanism: largely unconscious reactions that protect a person from unpleasant emotion like anxiety and guilt
 - Typically there mental maneuver that work through self-deception

Defense mechanism	Definition	Example
Repression	Keeping distressing thoughts and feelings buried in the unconscious	A traumatizing soldier has no recollection of the details of a close brush with death
Projection	Attributing one's own thoughts, feelings, or motives to another	A women who dislikes her boss thinks she likes her boss but feels that her boss doesn't like her
Displacement	Diverting emotional feelings (usually anger) from their original source to a substitute target	After parental scolding, a young girl takes her anger out on her little brother
Reaction formation	Behaving in a way that is exactly the opposite of one's true feelings	A parent who unconsciously resents a child spoils the child without outlandish gifts
Regression	A reversion to immature patterns of behaviour	An adult has a temper tantrum when he doesn't get his way

Rationalization	Creating false but plausible excuses to justify unacceptable behaviour	A student watches TV instead of studying, saying that “additional study wouldn’t do any good anyways”
Identification	Bolstering self-esteem by forming an imaginary or real alliance with some person or group	An insecure young man joins a fraternity to boost his self-esteem
Sublimation	Occurs when unconscious, unacceptable impulses are channelled into socially acceptable, perhaps even admirable, behaviours	A young man longing for intimacy is channelled into his creative artwork

Development: Psychosexual Health

- How children deal with immature but powerful sexual urges (sexual also meaning physical)
- Psychosexual stages: developmental periods with a characteristic sexual focus that leave their mark on adult personality
- Fixation: failure to move forward from one stage o another as expected
 - o Caused by excessive gratification of needs at a particular stage
 - o Effects adult personality

Stage	Age	Erotic focus	Key tasks and experiences	Effects in future
Oral	0-1	Mouth(sucking, biting)	Weaning (from breast or bottle)	Obsessive eating, smoking
Anal	2-3	Anus (expelling or retaining feces)	Toilet training	Anxiety about sexual activities
Phallic	4-5	Genitals (masturbating)	Identifying with adult role models; coping with Oedipal crisis (little boys fantasises about mom and hate mom because they feel like competitors and same with girls)	Won’t identify with same sex parent
Latency	6-12	None (sexually repressive)	Expanding social contacts; sexual energy channelled towards oneself	
Genital	Puberty onwards	Genitals (being sexually intimate)	Establishing intimate relationships; contributing to society through working; sexual energy channelled through peers	

- Carl Jung and Alfred Adler both worked with Freud and thought Freud overemphasized sexuality
 - o Freud rejected their thoughts so they went and made their own theories

Jung's Analytical Psychology

- Jung and Freud liked each other so much the day they met they talked 13 hours straight but then perspective on theory tore friendship
- After he created analytical psychology theorists called themselves 'Jungians'
- Emphasised unconscious determinants of personality
- But said unconscious had 2 layers:
 - Personal unconscious: not within ones conscious because it's been repressed or forgotten
 - Collective unconscious: storehouse of latent memory traces inherited from people's ancestral past
 - Ancestral memories called archetypes: emotionally charged images and thought forms that have universal meaning
 - Symbols from diff cultures are the same because they emerge from archetypes that are shared by whole human race
- Jung first to describe introverted and extraverted personality types
 - Introverts: preoccupied with internal world of own thoughts, feelings and experiences
 - Like Jung, contemplative and aloof
 - Extraverts: interested in external world of people and things
 - Outgoing, talkative, and friendly

Adler's Individual Psychology

- Got kicked out of Freud's group and took 9 of its 23 members with him
- He said the foremost source of human motivation is striving for superiority
 - This strive doesn't necessarily translate into pursuit of dominance
- Striving for superiority as a universal drive to adapt, improve oneself, and master life's challenges
 - Young children feel weak compared with older children and adults
 - This made them determined to acquire new skills and talents
- Said striving for superiority prime goal in life not physical gratification
- Compensation: efforts to overcome imagined or real inferiorities by developing one's abilities
- Compensation is normal but when its excessive it turns into inferiority complex
- Inferiority complex: exadurated feelings of weakness and inadequacy
 - Parental pampering or neglect could cause this
- Agreed with Freud that there is importance in early childhood development
- Instead of working to master life's challenges people work to achieve status, gain power over others
 - Flaunt success to cover up inferiority complex
- Had theory about birth order but it didn't explain birth order and its effect on personality

Evaluating Psychodynamic Perspective

- Discovered:
 - Unconscious forces can influence behaviour
 - Internal conflict plays key role generating psychological distress
 - Early childhood experiences can have powerful influences on adult personality
 - People do use defence mechanisms to reduce experience of unpleasant emotions
- Problems:
 - Poor testability: require testable hypothesis and this is too vague
 - Inadequate evidence: rely too much on case studies where it can be bias
 - Sexism unrepresentative samples: sampled Viennese women

BEHAVIOURAL PERSPECTIVES

- Behaviourism: theoretical orientation based on premise that scientific psychology should study only observed behaviour
- Behaviourists explain personality in terms of learning

Skinner's Ideas Applied to Personality

- Studied rats and pigeons
- Said I was useless to speculate on unobservable things, so he observed external environment and behaviour
- Said behaviour was fully determined by external stimuli
- Human responses are shaped by operant conditioning
- Not meant to be theory of personality but it has been applied to it
- Environmental consequences-reinforcement, punishment, and extinction-determine people's patterns of responding
 - When responses followed by reinforcement (positive) they are strengthened
 - Ex. If you tell joke and everyone laughs then you keep telling joke
- Views personality development to be continuous since response tendencies are constantly being strengthened/weakened by new experiences- this happens without persons conscious participation

Bandura's Social Cognitive Theory

- Albert Bandura: modern therapist who helped reshape behaviourism
- Added cognitive flavour to behaviourism
- Originally called it social learning theory, now known as social cognitive theory
- Agrees that behaviour shaped through learning but says people are self-organised, proactive, self-reflecting and self regulating not just reactive to external events
 - That's why people always try to influence their lives and outcomes
- Reciprocal determination: environment determines behaviour however behaviour also determines environment; personal factors (beliefs and expectations) determine and are determined by behaviour and environment
 - Internal mental events, external environmental events and overt behaviour all influence each other
- Humans not masters of own destiny
- Observational learning
 - Most human behaviour is learned by observation through modeling
 - Ex. If your sister gets a fake cheque for old stereo you'll always be suspicious of others
 - We model more same-sex people and people who have been successful
- Self-efficacy
 - Refers to one's beliefs about one's ability to perform behaviours that should lead to expected outcomes
 - Self-efficacy high: individual feels confident that they can execute response necessary to earn reinforces
- Mischel and the Person-Situation Controversy
 - Walter Mischel: people make responses that lead to reinforcement
 - If you think hard work will lead you to a raise then you'll do a better job instead of being lazy
 - Therefore: people behave differently in different situations
 - Theory sparked debate about relative importance on person vs. The situation in determining behaviour
 - Say both person and situation

Evaluating behavioural perspectives

- Criticism:
 - Dehumanizing nature of radical behaviourism

- o Dilution of the behavioural approach: neglect cognitive processes

HUMANISTIC PERSPECTIVE

- Thought other 2 schools dehumanizing
- Humanism: emphasizes the unique qualities of humans, especially their freedom and their potential for personal growth
- Believe animal research doesn't reveal anything about humans
- Assume that:
 - o People can rise above primitive animal heritage and control their biological urges
 - o People are largely conscious and rational beings who are not dominated by unconsciousness, irrational needs and conflicts
- Embrace phenomenological approach: one has to appreciate individuals' personal, subjective experiences to truly understand behaviour

Rogers's Person-Centered Theory

- Carl Rogers one of founders of human potential movement
- The self
 - o Self-concept: collection of beliefs about one's own nature, unique qualities and typical behaviour
 - Your own picture of yourself
 - Ex. I'm easy going, sly, crafty
 - Not buried in unconscious
 - o Incongruence: gap between self-concept and reality
 - Ex. If you think your smart yet your report card shows you aren't
 - o Congruence: self-concept meshes well with actual experiences
- Development of the self
 - o Rogers concerned with how childhood experiences promote congruence or incongruence
 - o Unconditional love (only show love if child does something good) from parents fosters congruence
 - o Conditional love (shows love no matter what) fosters incongruence
- Anxiety and defence
 - o Experiences that threaten personal views of self lead to anxiety
 - o High level of incongruence leads to anxiety
 - o To stop anxiety people try to change their experience in their head to make it fit with their self-concept
 - Ex. If girl thinks she's nice but she isn't and her friends tell her that, then she'll think that they're saying that because they're jealous of her
- Self-discrepancy
 - o Tory Higgins
 - o discrepancy between actual self and the ought self can lead to emotional discomfort
 - o actual self: who we think we are
 - o ought self: kind of person we should be
 - o ideal self: kind of person we wish we were

Maslow's Theory of Self-Actualization

- Abraham Maslow, like Rogers, said we should take an optimistic view on psych not just looking at disorders
- Hierarchy of needs
 - o Systematic arrangement of needs, according to priority, in which basic needs must be met before less basic
- List of needs:

1. Physiological needs: hunger, thirst, and so forth
2. Safety and security needs: long-term survival and stability



Progression if lower needs are satisfied

3. Belongingness and love needs: affiliation and acceptance
 4. Esteem needs: achievement and gaining of recognition
 5. Cognitive needs: knowledge and understanding
 6. Aesthetics needs: order and beauty
 7. Need for self-actualization: realization for potential
- Regression if lower needs are not being satisfied
- When a person satisfies (doesn't have to be fully) one level they move onto next
 - Growth need: needs in lower reaches of hierarchy
 - Need for self-actualization: need to fill ones potential
 - Highest need in Maslow's motivational hierarchy
 - The healthy personality
 - Self-actualizing persons: people with exceptionally healthy personalities, marked by continued personal growth
 - These people found that they have a nice balance between many polarities in personality
 - Evaluating Humanistic Perspectives and its flaws
 - Poor testability: difficult to put to a scientific test
 - Unrealistic views of human nature: unrealistic description of human nature
 - Inadequate evidence: this wasn't research oriented

BIOLOGICAL PERSPECTIVES

Eysenck's Theory

- Views personality structure as hierarchy of traits, where superficial traits are derived from a smaller number of basic traits which are derived from more traits
- All aspects of personality come from 3 traits
 - Extraversion
 - Social, assertive, active and lively
 - Neuroticism
 - Anxious, tense, moody and low self-esteem
 - Psychoticism
 - Egocentric, impulsive, cold and antisocial
- He believes that IQ is 80% genes and 20% environment
- Personality is determined to a large extent by a person's genes
- Shared environment has little impact on personality
- Introverts have higher level of physiological arousal which makes them more easily conditioned with extraverts
- Behavioural genetics and personality
 - Separated twins and realised their personality was still the same so therefore genetics plays role in personality
- Ultra radical left and fascism are the same
- Need to find optimal level of arousal
- Empirical
 - Extroversion and introversion are derived from diff experiments

The Evolutionary Approach to Personality

- Personality is a biological side because natural selection favoured certain traits
- David Buss: Big 5 emerged because humans evolved special sensitivity to variations in the ability to bond with others (extroversion), willingness to cooperate and collaborate (agreeableness), tendency to be reliable and ethical (conscientiousness), openness to experience, low neuroticism
 - Ability to recognise and judge others' status on the Big Five traits may have contributed to reproductive fitness

Evaluating Biological Perspective's Flaws

- Heritability ratios are estimates

- Can't say behaviour is just genetic and environmental

CONTEMPORARY EMPIRICAL APPROACHES TO PERSONALITY

Narcissism

- Personality trait marked by an inflated sense of importance, a need for attention and admiration, a sense of entitlement, and a tendency to exploit others
- Originally popularized by Sigmund Freud and Havelock Ellis
- Narcissistic personality disorder
 - Grand sense of importance
 - Constant need for attention
 - Difficult dealing with criticism
 - Sense of entitlement
 - Only seen in 3-5% of people
 - Narcissistic personality inventory is a scale used to measure narcissism
 - These people are more interested in looking successful than they are in lasting bonds
 - They work overtime
 - It is increasing over the years

Terror Management Theory

- Developed by Sheldon Solomon, Jeff Greenberg, and Tom Pyszczynski
- Concerns the psychological consequences of the “juxtaposition of a biologically rooted desire for life with the awareness of the inevitability of death”
- Potential to lead to paralyzing terror
- Describes how humans have attempted to solve the problem posed by existing terror
- Main goals: to explain why people even need self-esteem
- The fact that we know death can come anytime creates anxiety, alarm and terror when we think about it
- Culture is what saves us, it provides a way to view the world so that it solves the awareness of death
- Culture gives a sense of order, meaning, and context that can soothe the fear of death
- Self-esteem serves a terror management function
- Mortality salience: the degree to which subjects mortality is prominent in their minds
 - Temporarily increased when you ask someone to think of their death
 - Increasing it makes people defend their cultural views and have more cultural pride and also makes them think negatively about other cultures

CULTURE AND PERSONALITY

- Whether cultural differences have an effect on personality traits
- Research suggests basic dimensions of personality structure may be universal
- But they say some cultures are more extrovert, neuroticism ect than others
- National character: the idea that various cultures have widely recognized protocol
- little to no relationships between perceptions of national character and actual trait scores for various cultures
- Markus and Kitayama said that Americans tell their kids to be self-reliant, feel good about themselves and view themselves as special and unique
 - American culture fosters an independent view of the self
 - Learn to define themselves in personal attributes, abilities, accomplishments and possessions.
 - western view
 - “the squeaky wheel gets the grease”
- japananese people teach their kids the exact opposite
 - “the nail that stands out gets pounded down”

- Personality studied in relation to cultural syndromes of individualism vs. collectivism
 - Individualism: putting personal goals ahead of group goals and defining one's identity in terms of personal attributes rather than group membership
 - collectivism: putting group goals ahead of personal goals and defining one's identity in terms of the groups one belongs to
 - self-enhancement: involves focusing on positive feedback from others, exaggerating one's strengths, and seeing oneself as above average
 - more common in individualistic cultures but less common in collectivist cultures where the norm is to be more sensitive to negative feedback
 - conclude: collectivism promote greater insight then individualism

Gordon Allport

- Completely rational about what personality is
- Never did experiments
- Began research by looking at dictionary
- Finally made 200 clusters of words
- Three descending traits
 - Cardinal traits
 - Ex. Mother Teresa
 - Central traits
 - Sense of humor, honesty
 - This is most of us
 - Secondary traits
 - Not as important at all
 - Prefer Katy Perry rather than Taylor Swift
 - Just random interests that are not as central to and research
 - These detect narrow aspects of life
 - We have these traits as well
- Mature personality
 - Characterised of having empathy
 - Have sense of perspective
 - Rich philosophical sense of humor

Susan Kobasa

- How do some people have the ability to stay healthy under greater and greater stress
- Hardiness
 - People are characterised by commitment
 - Believe in value of what they are doing
 - Involve themselves in work family and relationships to a great extent you are responsible for many of our success
 - Committed to discipline
 - Opposite of commitment is alienation
 - Characterised by control
 - As opposed to powerlessness
 - Can influence the course
 - Challenge
 - Argues that the 3rd dimension is challenge vs. threat
 - Bring flexibility to their work
 - Maybe on fundamental thing that differs us from one another is our tolerance for ambiguity
 - See life as challenge

John Bodrillad

- Personality is more constructed of imagery than consistency
 - More style than self
 - We don't find authentic core of the personality we construct a personality on the superficial
- Creating vivid portraits of an authentic self-authenticity was very important
- Style of substance
 - System of objects-argued that reality no longer exists-we live in hyper reality
 - We live in the era of style-imagery is more important
 - What we perceive to be is what is to be important
 - Love is used to be enough to die for- but today they argue that love is just style
 - Faith today is style rather than substance
 - Politics is all style
- Hyper reality is what is more real in our society
 - Our TV friends are more alive than our actual real friends
- Questions become where am I rather than who am I
- Substance has been replaced by imagery and style

Gergen

- Populating one self
 - Increasing range of possibility
 - Where in this mix is the true self, rational core
- Demand of multiple audiences
 - Multiple audiences have demands for others
 - Need to have a group of friends, listen to certain songs that make these multiple audiences prefer
 - In this case the multiple audience is a person to make happy
- Repetition of images
 - Images of perfect embrace and love
 - When love becomes style- love becomes very thin
- Emotional deficiency disorder (E.D.D)

How to Assess personality

- Behavioural assessment
- Projective techniques
 - "RORJACK or rorshock" blot test
 - TAT- taking several pictures and asking question
 - OSS test
 - All these tests are ambiguous tests conducted
- Self-report personality inventory

Chapter 14: Psychological Disorders

The Medical Model

- Medical model proposes that it's useful to think of abnormal behaviour as a disease
- Mental illness, psychological disorder, psychopathology
- Dominant way of thinking about abnormal behaviour in 18th and 19th century
- Represents progression over the years because prior to 18th century if people acted strange everyone would say that they are possessed by the devil etc and they were 'fixed' with rituals, chants, and if too violent then tortured to death
- Rise of this model brought improvement in the treatment of people with abnormal behaviour and were treated more like people
- Some critics say that this model is old because it's derogatory and the stigma
- Thomas Szasz

- o “strictly speaking, disease or illness can affect only the body; hence there is no mental illness...minds can be ‘sick’ only in the sense that jokes are ‘sick’ or economies are ‘sick’”
- o People often said to have disorder because they act different from what society thinks is normal
 - Problems in living, not medical problems
- Diagnosis: distinguishing of one illness from another
- Etiology: apparent causation and development of an illness
- Prognosis: forecast about the probable course of an illness

Criteria of abnormal behaviour

1. Deviance
 - o Like szasz said people said to have disorder because of the way they act
 - o All cultures are diff but they all have such norms
 - o Transvestic fetishism: sexual disorder where man achieves sexual pleasure from dressing in women’s clothes
 - Disorder because deviating from our cultures norms
 2. Maladaptive behaviour
 - o People judged to have disorder because their every day adaptive disorder is impaired
 - o Key criteria to diagnose substance use
 - When it interferes with their work and personal life
 3. Personal distress
 - o Based on personal distress
 - o Usually criteria for depression or anxiety disorders
- Only need one of these criteria to be viewed as disordered
 - Criteria of mental illness isn’t as value free as criteria of physical illness
 - On occasion everyone acts different and abnormal

Stereotypes of psychological disorders

- Judgments of mental health are not value free
1. Psychological disorders are incurable
 - o For some treatment isn’t possible
 - o Some people do get better spontaneously or through formal treatment
 - o Ill people can get better and lead normal lives
 2. People with psychological disorders are often violent and dangerous
 - o Only tiny association between mental illness and violence
 - o Stereotype exists because media likes to show this side of mental illness
 3. People with psychological disorders often behave in bizarre ways and are very different from normal people
 - o Only true for small number of people
 - o Study by David Rosenhan showed even doctors have trouble telling difference from normal and abnormal

Diagnostic and Statistical Manual of Mental Disorders (DSM)

- System that classifies psychological disorders
- Recognizes importance of information besides a traditional diagnostic label
- Problem: there could be an overlap between diagnosis or more than one
- Comorbidity: the coexistence of 2 or more disorders 3..3
 - o Raises possibility that specific diagnosis may not reflect distinct disorders, but just variations of same disorder
- Because of these problems people suggest the current catagorial approach needs to be replace by dimensional approach

- Dimensional approach: describe person's pathology in terms of how they score on a limited number of continuous dimensions
 - Degree to which they display anxiety, depression, paranoia

Prevalence of Psychological disorders

- Epidemiology: the study of the distribution of mental or physical disorders
- Prevalence: percent of population that exhibits disorder during specified time period
 - For mental disorders its usually lifetime prevalence
- 44% of adults will experience a psychological disorder at some point in their lives
- Across all of North America most common type is: substance disorder, anxiety disorder, mood disorder
- 68% of people don't seek for help when they report constant symptoms

ANXIETY DISORDERS

- Class of disorders marked by feelings of excessive apprehension and anxiety
- Occur in roughly 19% of population
- 5 principle types of anxiety

Generalized anxiety disorder	<ul style="list-style-type: none"> • Chronic, high level of anxiety that isn't tied to any specific threat • Sometimes called free-floating anxiety because its nonspecific • Worry constantly about yesterdays mistakes and tomorrows problems • Hope worrying will ward off negative events and worry about how much they worry • Accompanied by physical symptoms like trembling, muscle tension, diarrhea, dizziness, faintness • Gradual onset and seen more in females then males
Phobic disorder	<ul style="list-style-type: none"> • Persistent and irrational fear of an object or situation that presents no real danger • Fears seriously interfere with everyday behaviour • Accompanied by physical symptoms of anxiety like trembling and palpitations • Can develop phobic responses to anything, even things like driving • Acrophobia (fear of heights), claustrophobia, brontophobia (fear of storms) • Unable to calm themselves when confronted or even thought of phobic object
Panic disorder and Agoraphobia	<ul style="list-style-type: none"> • Panic disorder: recurrent attacks of overwhelming anxiety that occurs suddenly and unexpectedly • Accompanied by physical symptoms of anxiety • Eventually become apprehensive, wonder when next panic attack with come • Concern about exhibiting panic in public may cause them to not leave home • Creates condition called agoraphobia • Agoraphobia: fear of going out in public places • 2/3 of people who have it are female • Usually occurs late adolescence or early adult hood

Obsessive-compulsive disorder	<ul style="list-style-type: none"> • Obsessions: thoughts that someone repeatedly thinks about and must do • OCD: persistent, uncontrollable intrusions of unwanted thoughts (obsession) and urges to engage in senseless rituals (compulsions) • Sometimes center on inflicting harm on others, personal failures, suicide or sexual acts • Feel like they lost control of mind • Stereotyped rituals that temporarily relieve anxiety • 2-3% of population • 4 factors underlie symptoms: obsessions and checking, symmetry and order, cleanliness and washing, and hoarding
Post-traumatic stress disorder (PTSD)	<ul style="list-style-type: none"> • Elicited by a variety of traumatic events • Some instances it doesn't show right away, • 7-8% suffered from PTSD at some point in their lives • Symptoms: re-experiencing traumatic event in the form of nightmares and flashbacks, emotional numbing, alienating yourself, anxiety, guilt, anger • Slowly decreases but in many cases it never fully goes away

Etiology of anxiety disorders

- Biological factors
 - o Concordance rate: % of twin pairs or other pairs of relatives who exhibit the same disorder
 - o If relatives that show more genetic similarities show high concordance rate then it supports genetic hypothesis
 - o 15-20% of infants show inhibited temperament
 - Categorised by shyness, timidity and wariness
 - Risk factor for development of anxiety
 - o Anxiety sensitivity also makes people vulnerable to anxiety disorders
 - Prone to overreact with fear
 - Anxiety fuels more anxiety which causes anxiety disorder
 - Vulnerable to depression and panic disorders
 - o Disturbances in neural circuits using GABA may play role in some anxiety disorders
 - Abnormalities with serotonin showed panic and OCD
- Conditioning and learning
 - o Acquired through classical conditioning and maintained through operant conditioning
 - o Ex. As a child kid was buried under avalanche and now as an adult, scared of snow
 - o According to Mowrer an originally neural stimulus (snow) may be paired with frightening event (avalanche) so it becomes a conditioned stimulus eliciting anxiety
 - o Once fear acquired through classical conditioning the person may start avoiding the anxiety feeling stimulus
 - Its negatively reinforced because its followed by a reduction in anxiety
 - o Classical conditioning: acquisition of phobic fear
 - o Operant conditioning: maintenance of phobic fear (negative reinforcement)
 - o Martin Seligman's concept of preparedness
 - Tendency to develop phobias of certain types of objects and situations
 - People are biologically prepared by their evolutionary history to acquire some fears more than others
 - Explains why people are afraid of snakes and spiders (ancient threats) more readily than electrical outlets or hot irons(modern sources of threat)
 - Evolutionary threats produce
 - Problems with conditioning models of phobias:
 - People cant recall or identify a traumatic conditioning

- A lot of people experience stuff that should cause phobias but don't
 - Some get phobias by seeing other people's reactions
- Cognitive factors
 - o Certain styles of thinking make people vulnerable
 - o People (a) misinterpret harmless situations as threatening, (b) focus excessive attention on perceived threats and (c) selectively recall information that seems threatening
 - o See threat in every corner of their lives
- Stress
 - o Faravelli and Pallanti found patients with panic disorders have had stress prior to it

DISSOCIATIVE DISORDERS

- Class of disorders in which people lose contact with the portions of their consciousness or memory resulting in disruptions in their sense of identity
- 3 dissociative syndromes:

Dissociative amnesia	<ul style="list-style-type: none"> • Sudden loss of memory for important personal information that is too extensive due to normal forgetting • Memory loss can be for just that one specific event or for a period of time around that event • Cases observed after people have accidents, combat stress, distress, etc
Dissociative fugue	<ul style="list-style-type: none"> • Lose memory for their entire lives along with sense of personal identity • Forget name, family, where they live, work • Remember matters unrelated to identity • Ex. May remember how to drive car or do math
Dissociative identity disorder	<ul style="list-style-type: none"> • Coexistence in one person of 2 or more largely complete and usually 2 very different personalities • Use to be called multiple personality disorder • Person feels like they have more than one identity • Each personality has its own name, physical mannerisms, personality traits • Often mistakenly called schizophrenia • Various personalities often unaware of each other • Experiences of a specific personality only recalled by that specific one not others • Transition between personalities sudden and they are very different • Seen more in women than men

Etiology of Dissociative Disorder

- Psychogenic amnesia and fugue usually attributed to excess stress
- Some say personalities like fantasy proness and tendency to become absorbed in personal experiences
- Role-playing used as a mental illness for an excuse for their personal failings
 - o Spanos says this because he says ever since movies protra people with this disorder with multiple personalities then now the average number of personalities is 15 and not 1.5
- Rooted in severe emotional trauma that occurred during childhood
 - o Many report childhood history of rejection from parents and physical and sexual abuse

MOOD DISORDERS

- Tend to be episodic

- o Mood comes and goes
 - o Vary in length but typically last 3-12 months
- Can interfere with personal and professional life
- When family members are concerned they say to think positive, but that could be harmful to some types of people
- Mood disorders are a case of disorders marked by emotional disturbances of varied kinds that may spill over to disrupt physical, perceptual, social, and thought processes
- 2 basic types:
 - o Unipolar disorder: experience emotional extremes at just one end of the mood continuum, as they are troubled only by depression
 - o Bipolar disorder: vulnerable to emotional extremes at both ends of mood continuum, going through periods of both depression and mania (excitement and elation)

Major depressive disorder

- Depends on duration of depression (more than a few weeks) and its disruptive effects
- People show persistent feelings of sadness and despair and a loss of interest in previous source of pleasure
- Central feature of depression is anhedonia: a diminished ability to experience pleasure
- Lack energy or motivation to do anything so stay in bed a lot
- Give up favorite hobby, appetite
- Many also suffer from coexisting anxiety and substance use disorders
- Usually occur before age 40
- Average number of depressive episodes is 5-6
- Average length is 6 months
- An earlier age of onset associated with more episodes of depression, more severe symptoms
- When people display mild symptoms of depression they're diagnosed by dysthymic disorder: chronic depression that is insufficient in severity to justify diagnosis of a major depressive episode
- 10% of Canadians will experience depressive disorders sometimes in their life
- Twice as high in women than men
 - o Some say it's because women experience sexual assault more than men

Bipolar disorder

- Formally known as manic depressive disorder
- Characterized by experience of one or more manic episodes as well as periods of depression
- One manic episode is sufficient to qualify for this diagnosis
- Symptoms the opposite of depression
- In manic episode mood becomes elevated to the point of euphoria
 - o Becomes hyperactive and may go for days without sleep
 - o Sexually reckless
- Cyclothymic disorder: exhibit chronic but relatively mild symptoms of bipolar disturbances
- Bipolar much less common than unipolar

Diversity in mood disorders

- 2 main types of mood disorders: major depressive disorder and bipolar disorder
- Seasonal affective disorder (SAD): type of depression that follows a seasonal pattern
 - o Most common is winter depression
 - o Differs in countries
 - o Onset of SAD related to melatonin production and circadian rhythms
 - o Treatment- phototherapy: exposed to therapeutic light
- Postpartum depression: type of depression that occurs after child birth

- o Include both depression and mania
- o Higher for immigrant women because of increased stress

Mood disorders and suicide

- According to World Health Organisation more people around world die from suicide than are killed in all of the armed conflicts that plague the world
- One of 3 leading causes of deaths in people from 15-34 years of age
- Many discussed as accidents either by suicidal person or by survivors as a coverup
- Women attempt suicide more than men but men more likely to actually kill themselves
- Higher for people with mood disorders

Etiology of mood disorders

- Genetic vulnerability
 - o Twin studies show genetic factors involved
 - o Hereditary can create a predisposition to mood disorders
 - o Influence of genetic factors stronger for bipolar disorders than unipolar disorders
- Biological and neurochemical factors
 - o Correlations found between mood disorders and abnormal levels of 2 neurotransmitters: norepinephrine and serotonin
 - o Correlation between mood disorders and structural abnormalities in brain
 - o Hippocampus (plays major role in memory consolidation) is smaller in depressed people
 - o Jacobs has theorized that depression occurs when major life stress causes neurochemical reactions that suppress neurogenesis resulting in reduced hippocampal volume
 - o Antidepressants elevate serotonin levels and relieve depression because it promotes neurogenesis
- Hormonal factors
 - o Times of stress signal goes from hypothalamus → pituitary gland → adrenal cortex → release corticosteroid hormones
 - o This path referred to as hypothalamic-pituitary-adrenocortical (HPA) axis
 - o Over activity of the HPA axis causes depression
- Dispositional factors
 - o Perfectionism/high standards associated with depression
 - o Paul Hewitt and Chair Gordon developed multidimensional perfectionism scale:
 - Self-oriented perfectionism: tendency to set high standards for one self
 - Other-oriented perfectionism: setting high standards for others
 - Socially prescribed perfectionism: tendency to perceive that others are setting high standards for oneself
 - o Aaron Beck and Sidney Blatt say there are 2 personality styles vulnerable of depression
 - Sociotropic: interested in interpersonal relationships, emphasis in pleasing others
 - Autonomous: oriented towards own independence and achievement
- Cognitive factors
 - o According to Aaron Beck depressed individuals characterised by negative cognitive triad (reflects tendency to have negative views of themselves, the world and the future)
 - o Martin Seligman's learned helplessness model of depression
 - Depression caused by learned helplessness-passive "giving up" behaviour produced by exposure to unavoidable aversive events
 - People who exhibit a pessimistic explanatory style are vulnerable to depression

- o People who keep thinking about their depression will stay depressed for longer
- Interpersonal roots
 - o Inadequate social skills put people on the road to depressive disorders
 - o Depression prone people lack important reinforcers like good friends, top jobs, and desirable spouses
 - o Depressed people often irritable and pessimistic
 - o Complain a lot and aren't the best people to be around
 - o They have fewer sources of social support and can increase vulnerability to depression
- Sports concussions and depression
 - o Depression is a common feature of post-concussion syndrome
- Precipitating stress
 - o Sometimes appear mysteriously in people with nonstressful lives
 - o But it has proven that stress is correlated to depression

SCHIZOPHRENIC DISORDERS

- The term means 'split mind'
 - o Eugen Bleuler coined this term
- Actually means 'split personality'
- Person manifests 2 or more personalities
- Actually called dissociative identity disorder or multiple-personality disorder
- Class of disorder marked by delusions, hallucinations, disorganized speech and deterioration of adaptive behaviour
- Often display same symptoms as people with severe mood disorders but main diff is that SC has disturbed thoughts whereas mood disorders involve disturbed emotions
- Very costly because early onset and lengthy hospital care
- Financial costs exceed costs of all types of cancers combined

General symptoms

- Delusion and irrational thought
 - o Delusions are false beliefs that are maintained even though they clearly are out of touch with reality
 - Ex. Someone thought they were a tiger for 15 years
 - o Believe thoughts are being broadcasted to others and thoughts can be forced into their minds and that their thoughts are controlled by external force
 - o Delusions of grandeur: people maintain that they are famous or important
 - o Person's train of thought deteriorates
 - Thinking is chaotic rather than logical and linear
 - Change topics fast
- Deterioration of adaptive behaviour
 - o Deterioration in quality of person's routine functioning in work, social relationships, and personal care
 - o People say "he/she hasn't been the same lately"
- Hallucinations
 - o Most common is auditory hallucinations
 - o Hallucinations: sensory perceptions that occur in the absence of real, external stimulus or are gross distortions of perceptual input
 - o Say they hear voices that are nonexistent that can be insulting, argumentative, and issue commands
- Disturbed emotions
 - o Blunted or flat affect: although it may not describe the true emotions they are feeling, some victims show little emotional responses
 - o Ex. May cry over a cartoon and laugh at a tragic death

Subtypes of SC

Paranoid type	<ul style="list-style-type: none"> • Dominated by delusions of persecution, along with delusion of grandeur • Believe they have enemies that want to harass and oppress them • Become suspicious of friends and family • Convinced they are being watched • Believe they are great inventors or very famous people
Catatonic type	<ul style="list-style-type: none"> • Striking motor disturbances, ranging from muscular rigidity to random motor activity • Some patients go into extreme form of withdrawal known as catatonic stupor • Some go motionless, some very hyper
Disorganised type	<ul style="list-style-type: none"> • Severe deterioration of adaptive behaviour • Emotional indifference, frequent incoherence, and complete social withdrawal • Aimless babbling and giggling common • Often center on bodily functions (“my brain is melting from my ears”)
Undifferentiated type	<ul style="list-style-type: none"> • Don't fit into any of the other 3 categories • Marked by distinctive mixtures of SC symptoms

Positive vs. negative symptoms

- Catatonic subtype disappearing and the undifferentiated type isn't an actual category its more of just 'left overs'
- Because of this Nancy Anderreassen and others proposed an alternative approach to subtyping

Negative symptoms	<ul style="list-style-type: none"> • Involve behavioural defects, such as flattened emotions, social withdrawal, apathy, impaired attention, and poverty of speech
Positive symptoms	<ul style="list-style-type: none"> • Behavioural excesses or peculiarities, such as hallucinations, delusions, bizarre behaviour, and wild flights of ideas

- Most patients show both symptoms just degree of which dominates is different

Course and outcome

- Emerges during early childhood or adolescence
- May be sudden but usually is insidious and gradual
- Tend to fall under 3 groups:
 - o Those with milder disorders are treated successfully and enjoy a full recovery
 - o Others experience a partial recovery so they can return to independent living for a time
 - Experience relapses over the remainder of their lives
 - o Chronic illness marked by relentless deterioration and extensive hospitalization

Etiology of SC

- Genetic vulnerability
 - o Twin studies, concordance rates average around 48% in comparison to 17% for fraternal twins
 - o If both parents have it then very high chance of kids having it
- Neurochemical factors
 - o Accompanied by changes in the activity of one or more neurotransmitters in the brain
 - o Excess dopamine

- o Psychotic symptoms may prompt young people to turn to marijuana so self medicate
- o Marijuana use roughly doubles risk of psychotic disorders
- Structural abnormalities in the brain
 - o Exhibit defects in attention, perception and information processing
 - o Connection between enlarged brain ventricles (hollow cavities in brain) and SC
 - Enlarged ventricles associated with degeneration of nearby brain tissue
 - o Loss of grey and white matter reflect losses of synaptic density
 - o Suggests SC caused by disruption in brain's connectivity
- The neurodevelopmental hypothesis
 - o Caused by various disruptions in the normal maturational processes of the brain before or at birth
 - o Insults to the brain during sensitive phases of prenatal development or during birth can cause neurological damage
 - o Found link between influenza and other infection during prenatal development
 - o Prenatal malnutrition and severe stress increases risk of SC
- Expressed emotion
 - o Degree to which a relative of a SC patient displays a highly critical or emotionally overinvolved attitudes towards the patient
 - o Audiotapes of family members are carefully assessed to see any signs of resentment
 - o When SC patient comes out of hospital if he is greeted by resentful family then more likely to go into relapse
- Precipitating stress
 - o High stress triggers SC and increases risk of relapse

PERSONALITY DISORDERS

- Class of disorders marked by extreme inflexible personality traits that cause subjective distress or impaired social and occupational functioning
- Personality disorders grouped into 3 clusters
 - o Anxious/fearful: maladaptive efforts to control anxiety and fear about social rejection
 - o Odd/eccentric: distrustful, socially aloof, and unable to connect with others emotionally
 - o Dramatic/impulsive: have less in common with each other than other 2 groups
- Look at table 14.2 on page 676

Diagnosis problem

- There is a lot of overlap in between all of them
- They think their categorization is wrong because you can put people in multiple categories

Antisocial personality disorder

- Misleading name
- Does not mean people lack social interactions
- In fact they often make good first impressions
- They are antisocial in the fact that they choose to reject widely accepted social norms regarding moral principles and behaviour
- Chronically violate the rights of others
- It is marked by impulsive, callous, manipulative, aggressive and irresponsible behaviour that reflect a failure to accept social norms
- Rarely feel guilty because they haven't accepted the social norm
- More common in males than females
- Many become involved in illegal activities
- Also known as psychopathy

- Rarely experience genuine affection for others, but they are skilled at faking it so they can take advantage of people
- Sexually are predators and promiscuous
- Unreliable employees, unfaithful spouses, inattentive parents and undependable friends

Etiology

- Biological factors: twin studies found concordance rate of 67%
- Hans Eysenck theorizes such people inherit sluggish autonomic nervous systems

DISORDERS OF CHILDHOOD

Autism

- Aka autistic disorder
- Development disorder characterised by social and emotional deficits, along with repetitive and stereotypic behaviours, interest and activities
- Donald Grey Tripplett first person to be diagnosed with this
- 3 subtypes of autism
 - Autistic disorder
 - Asperger's disorder
 - Pervasive developmental disorders
- Exhibit 3 types of deficits
 - Impairment in social interactions (autistic aloneness Kanner referred to)
 - Impairment in communication
 - Repetitive, stereotyped behaviours/interests/activities
- Rarely initiate contact with others, may not smile, turn their back towards other kids
- Exhibit a pattern called echolia: they mimic what they have heard from others and repeat back sentences they have just communicated to them
- They show obsessive compulsive disorder being comfortable with only order and familiarity
- May also show high order repetitive order which they are interested in a specific topic

PSYCHOLOGICAL DISORDERS AND THE LAW

- Individuals suffering from psychological disorders are referred to as being insane
- Canada has insanity laws
- They are not responsible for crime if insane
- Most people with diagnosed psychological disorders would not qualify as insane
- M'Naghten rule: insanity exists when a mental disorder makes a person unable to distinguish right from wrong
- Automatism: you should not be held responsible if you had no control over your behaviour

CULTURE AND PATHOLOGY

- 2 views
 - Relativistic view: criteria of mental illness vary greatly across cultures and there is no universal standards of normality and abnormality
 - Pancultural view: criteria of mental illness are much the same around the world and that basic standards of normality and abnormality are universal across cultures
- Culture bound disorders: abnormal syndromes found only in a few cultural groups