Psychology lesson plans for the week of 11/16/09

Monday 11/16/09
Chapter 6 test
Read chapter 5

Tuesday 11/17/09
What is the difference between motivation and emotion?
  Motivation drives us toward goals. Emotions cause feeling, such as fear and love
What are the functions of the following hypothalamus, reticular formation, pituitary gland, adrenal gland and the amygdala when it comes to emotions and motivation?
  Hypothalamus: controls basic needs: hunger, thirst, pleasure, and rage
  Reticular formation: regulates body’s activity level
  Pituitary gland: signals other glands; affects growth
  Amygdala: registers and controls fear and aggression
What are the two types of gonads? How do they influence reproduction? What hormones do these gonads produce?
  Testes produce sperm and androgen male hormone
  Ovaries produce eggs and estrogen female hormone
How does homeostasis work?
  Homeostasis keeps our body in balance: If we are hungry, we eat; if we are thirsty, we drink
Why is the contraction theory inadequate in explaining hunger?
  The stomach contracts sometimes even when the body is not hungry
How does blood-sugar level (glucose) contribute to hunger?
  If blood sugar level is low, the hypothalamus will make us feel hungry. If we do not eat, the body will dump some stored glucose in the blood, and we will feel less hungry for a while.
What are some other factors that contribute to hunger?
  Tongue’s taste receptors
  Learning
  Intestinal and stomach receptors that release chemicals to indicate hunger
  Shrunken cells
How do set points affect weight?
  Each person has a set point that our body strives to reach (gain or lose)
What internal cues will signal thirst? How does learning contribute to thirst?
  Hypothalamus counts water molecules in body cells to see if there is balance
  Hypothalamus takes in the dryness of tongue
  Hypothalamus reads temperature of water in the body
  Intestines regulate thirst too
  Learning contributes to thirst too (drinking after a workout)
Describe four psychological, nonsurvival needs that affect motivation?
  Curiosity: try different things
  Manipulation: handle objects
  Intrinsic and extrinsic: rewards from within and without
  Stimulation: stimulated in order to develop properly
What did Harry Harlow teach us about child development?
  Animals and humans need stimulation (contact comfort) to develop properly
  (food and h2o not enough)
Which needs must we satisfy in order to become self-actualizing, according to Abraham
Maslow? What did he mean by self-actualizing?
  Physiological: water food, oxygen,
  Safety: a house, lock on the door, money in the bank
  Belongingness: a feeling that we are loved and close to others
  Esteem: liking and respecting oneself
  Self-actualization: the process of becoming the best person each of us can be
What are three other psychological motivators?
  Affiliation: we want to feel like we belong
  Approval: we want others to have good opinions of us
  Achievement: we want to feel like we’ve accomplished something in life
Why might firstborns have a slight advantage over later born children in academic
achievement? What could compound this difference?
  Older kid gets opportunity to teach younger. This helps them to learn more. The
  greater the distance in age the more pronounced. The larger the family the more
  opportunities for teaching
According to the opponent-process theory, What happens after we experience an intense
emotion?
  After an intense emotion, we then experience its opposite for a while
What is cognition and how does it contribute to emotion?
  Cognition is our thought process. It affects emotions by interpreting situations
  and directing how we should feel about those situations
According to Daniel Goleman, what are three steps toward emotional intelligence?
  Emotional awareness
  Managing emotions
  Identifying and understanding others’ emotions
What are three main theories of emotions? How are they different?
  James-Lange theory: emotion is produced after the body reacts
  Cannon-Bard theory: body reacts and emotion produced at the same time
  Schachter’s cognitive theory: emotion is produced after we think about what
happened and label it.
Read chapter 7 and do chapter 7 review

Wednesday 1118/09
How do we learn?
What is conditioning?
  When we make an association, usually repeatedly between two events
What were Ivan Pavlov’s original research intentions? What 3 strange things helped to
alter these intentions?
  Pavlov wanted to study digestion.
  Food put directly into the stomach did not digest because of the lack of digestive
  juices
  His dogs salivated at the sight of food
His dogs salivated at the sight of the experimenter even if the person didn’t have food.

In classical conditioning, what causes some kind or reaction or response?
  - Stimulus causes a response

What automatically and involuntarily produces an unconditioned response?
  - An unconditioned stimulus produces an unconditioned response

After learning has taken place, what automatically and involuntarily produces a conditioned response?
  - A conditioned stimulus produces a conditioned response

What did John Watson teach little Albert? What conclusions did Watson draw from these experiments with Little Albert?
  - Watson taught Little Albert to be afraid of white lab rats by associating the white lab rat with loud noises. He concluded that it is possible to condition with a neutral object and the same emotion can be evoked with similar objects. This is called generalization.

What did Mary Cover Jones discover?
  - She could extinguish a phobia using learning principles.

What is the difference between classical and operant conditioning?
  - Classical conditioning refers to the learning of involuntary responses
  - Operant conditioning refers to the learning of voluntary responses (consequences influence learning)

According to B.F. Skinner, why do we perform certain behaviors?
  - We perform behavior that has been followed in the past by reinforcements.

How do reinforcements affect behavior?
  - They strengthen the tendency to repeat the response

What is the difference between a primary and a secondary reinforcer?
  - Primary: survival need
  - Secondary: something that represents a primary reinforcer is used as reinforcement

What is the difference between positive and negative reinforcement?
  - Positive: response followed by something pleasant and increases the likelihood of the response occurring again
  - Negative: something unpleasant is taken away after a response, which also increases the likelihood of the response occurring again.

How does punishment affect behavior?
  - Punishment weakens a response because something unpleasant happens after a response.

How is generalization different than discrimination learning?
  - Generalization is a response that spreads from one situation to a similar one
  - Discrimination is a response that occurs in one situation but not in a similar one

The person can tell the difference between the two situations.

In what way is reinforcement used in shaping?
  - Reinforcement occurs gradually as the response is slowly refined

What is chaining?
  - It is reinforcing the connection between different parts of a sequence

What are the 5 methods for extinguishing bad habits?
Remove avoid or delay
Do not remove reinforcements but find a new behavior to get reinforcement
Narrow or avoid the stimuli that precede the habit
Break the chain
Monitor the bad habit

What happens when spontaneous recovery occurs?
A behavior that previously has been extinguished begins to reoccur for no apparent reason.

How is continuous reinforcement different than partial reinforcement?
Continuous: reinforcement occurs after every response
Partial: reinforcement is not given after every response. Reinforcement varies

When is reinforcement given for each of the schedules of reinforcement?
Variable ratio: after a varied number of responses
Fixed ratio: after a response is made a specific number of times
Variable interval: after a varied length of time
Fixed interval: after a set length of time

How does Albert Bandura’s theory of social learning differ from classical and operant conditioning?
Bandura takes the inner person into account. We often learn by watching others, or through observational learning.

How does the cognitive approach differ from classical and operant conditioning?
Cognitive approach places greater emphasis on one’s thought process.

Read chapter 8

Thursday 11/19/09

How does attention affect the brain and learning?
Attention keeps us physically aroused and helps us to learn

What is a learning curve?
A graphic picture that shows gradual learning through an upward slope

How do stimulants and depressants affect learning?
Stimulants can increase learning
Depressants block the firing of brain cells and tend to inhibit learning

What is state-dependent learning?
Information learned in one physical state will be best remembered in the same state.

In general, how do emotional factors affect learning?
Excitement increases the brain chemical used during learning.

How does positive transfer differ from negative transfer?
Positive transfer: one task helps us learn another, similar task
Negative transfer: on task interferes with the learning of another, similar task.

What does information processing mean?
How we analyze, store and retrieve material

How does schema help one solve problems?
Schemas provide us with organized approaches to solving problems

How does elaboration help improve memory?
When we elaborate on something and associate it with other concepts, it increases the likelihood that we’ll remember it. The more associations we have with something, the more likely the brain will store it permanently.

What is the main reason for using mnemonic devices?
Mnemonic devices are most useful when applied to rote unthinking memorization.

What does principle-learning mean?
When we attempt to focus on the basic idea of a concept

How does chunking improve memory?
Reduces the number of items to be remembered by clustering them

What is the definition of forgetting?
The increase in errors made when trying to recall information

What is a forgetting curve? How does over learning affect this curve?
A graphic picture that shows the speed and amount of forgetting. Over learning will eliminate the forgetting curve for the material that is over learned.

What are some differences between recall and recognition?
Recall: requires remembering and integrating details
Recognition asks someone to pick an answer from a list of choices

How does interference theory explain forgetting?
New material conflicts with previously learned material, making the new material harder to remember.

What are two basic theories concerning memory?
Physical structure of the synapse changes when we remember something
Synapses grows once a pattern develops

What are two explanations for amnesia?
Temporary reduction of blood supply after an injury
Injury might disrupt transmission across synapses and temporarily dislodge old memories and take away new ones not thoroughly stored.

What are several characteristics of short- and long-term memory?
STM: lasts for a few seconds to a few minutes
LTM: holds information for ours, days, months, decades

What is a sensory memory system?
It holds information for just a few seconds, and then passes it to STM if material is relevant or eliminates it.

What do iconic and acoustic memories contribute to the sensory memory system?
Iconic: brief visual memory
Acoustic: brief sound memory

What is eidetic imagery? Does it exist?
Eidetic imagery is photographic memory. Only rarely

Why is eyewitness memory so poor? How does hypnosis affect eyewitness memory? Are people usually successful in identifying faces during a crisis? Why or why not?
Stress disrupts memory
Memory is so important that we process it too much by trying to make complete sense of it by filling in the gaps. Hypnosis helps to fill in the gaps by suggesting things so the memories are inaccurate. We can’t remember faces.
during crises because they usually don’t elaborate on the memory and thus forget it.

What is consolidation?
Process by which, over time, a memory solidifies.

Read chapter 9

Friday 11/20/09
How did psychologist in the late 1800’s try to measure intelligence?
In a mechanical way
Physical tests of pain a capability
How is intelligence usually defined today?
Ability to understand and adapt to the environment by using inherited abilities and learned knowledge
What was Alfred Binet’s original intention in devising an intelligence test?
To find students who were not bright enough to succeed in the regular school system
What id Binet finally decide were four important elements of intelligence?
Direction: setting a goal
Adaptability: adjusting a goal
Comprehension: understanding a problem
Self-evaluation: assessing a solution
How is an intelligence quotient calculated?
Mental age divided by chronological age multiplied by 100 = IQ
What was David Wechsler’s original intention in devising an intelligence test?
A test that measured real-world intelligence rather than simply verbal intelligence
How was Wechsler’s test different than Binet’s?
Wechsler’s scale didn’t put as much emphasis on verbal skills, yet it still tested the ability to reason
What three IQs does the Wechsler Adult Intelligence Scale (WAIS-III) measure?
Verbal
Performance
Combo of Verbal and performance
What is Gardner’s theory of multiple intelligences? What are its components?
7 components of basic intelligence: language, logical/mathematical, visual/spatial, musical, bodily movement, intrapersonal, interpersonal
Who or what influences the definition of intelligence? In what way?
Society and what is important to it
Is intelligence inherited?
50% inherited and other factors education, social class, environment, nutrition, stimulation at an early age
What are the differences between individual and group intelligence tests?
Individual: last about an hour, administration of test costly
Group: less costly to administer, usually involve pencil and paper, and measure verbal ability
What restrictions do courts place on the use of IQ tests?
IQ should not influence placement of kids in school because:
How does mental challenge affect the brain? Mental challenge cause rats and humans to grow thicker and heavier brains.

What are several characteristics of people with superior intelligence?
- Psychologically well adjusted
- Physically healthy
- Interact well
- High self-esteem
- Less gullible than most

How is mental retardation defined? What IQ signifies borderline retardation? Profound retardation?
- Mental retardation is sub average intelligence and a person not able to perform at a level appropriate for his or her age.
  - Borderline 70-79
  - Profound 19 or below

What are possible physical defects that may lead to retardation?
- Injury
- Disease

What are several environmental factors that may contribute to retardation?
- Poor nutrition
- Poor health
- Infection
- Drug abuse
- Lack of stimulation

What is meant by the term inclusion? What are some other programs to help the mentally retarded?
- Placing mildly retarded children in regular academic classrooms
- Other programs: training in motor coordination, social skills, and self-care

What is set and how does it affect creativity?
- Set refers to the tendency to get stuck in a rut when solving a problem.
- Breaking set or thinking of unexpected ideas usually leads to greater creativity

What is the relationship between IQ and creativity?
- Little, but highly creative people are usually slightly above average in intelligence