

## INTRODUCTION (Erik Cheries)

I1. Who was "Clever Hans" and what important lesson did he contribute to psychology? (2 pts)

Clever Hans was a horse. The lesson from Clever Hans is that experiments need careful controls.

I2. Developmental psychologists have argued that babies have considerable inborn knowledge of the physical world. This is most similar to the view of which philosopher

- A. Locke
- B. Kant
- C. Descartes
- D. Mill

I3. \_\_\_\_\_ use the concept of \_\_\_\_\_ to explain how sensory experiences alone could ultimately lead to complex thought.

- A. Nativists; innateness
- B. Dualists; empiricism
- C. Physiologists; reflexology
- D. Empiricists; association

## COGNITIVE DEVELOPMENT

C1: It takes infants about 1 month of experience moving and observing the actions of others before they can successfully imitate facial expressions such as sticking out their tongue.

TRUE      FALSE

C2: A developmental psychologist would like to determine whether a 5-month-old infant could discriminate a real object from a picture of that object. Describe an experiment you could run to test this using the habituation method. (3 pts)

There are multiple answers to this question. The gist is that you show infants a picture of a real object many times in a row, then show them a picture or the real object to see if they look longer (dishabituate).

C3: In Piaget's theory of development \_\_\_\_\_ serve as the mental blueprints for actions.

- a. symbols
- b. schemas
- c. beliefs
- d. stages

C4: Which measure provides the best evidence that infants believe that objects will continue to exist when out of view?

- A. Reaching
- B. **Looking time**
- C. fMRI
- D. All of the above

C5: American children start pretending very early in development—at about 2 years of age. This is likely to be:

- A. Because American parents encourage them to do so
- B. Because of exposure to television and movies
- C. **Neither of the above**
- D. Both of the above

C6: According to Piaget, a child will succeed at conservation tasks when he or she is at the:

- A. Sensorimotor stage
- B. Preoperation stage
- C. **Concrete operation stage**
- D. Phallic stage

C7: Modular theories of social understanding are most supported by the existence of:

- A. High-IQ children
- B. **Autistic children**
- C. Retarded children
- D. Deaf children learning sign language

### **LANGUAGE (Izzat Jarudi)**

L1: Based on the Baker chapter in the Norton readings, describe one *specific* difference between English and Navajo. (Your answer has to show specific knowledge of the languages—you won't get any points for just saying that the vocabulary, or syntax, or phonology is different.) (2 pts)

**There are multiple answers to this question. Two good ones: non-perfectly overlapping vocabulary. Navaho has many words for “carry” but not English. Elaborate systems of prefixes on verbs in Navajo but not English.**

L2: Children start off being unable to distinguish between any phonemes and rapidly pick up those specific to their native language.

TRUE                      FALSE

L3: Name two specific areas in the brain associated with language and identify their function (2 pts)

Any two of the following: Broca's area is for fluent speech production. Wernicke's area is for translating sounds into meaningful words. The primary motor area for movements of the tongue and other speech muscles. The primary auditory area for speech perception.

L4: Language is crucial to mental development; the child's learning of language has a major role in how the child comes to understand the world. This view is associated with:

- A. Vygotsky
- B. Chomsky
- C. Both of them
- D. Neither of them

L5: The case of Genie--the child who was deprived of language until the age of 13—tells us something interesting about:

- A. Prescriptive rules vs. descriptive rules
- B. critical periods
- C. the Sapir-Whorf hypothesis
- D. creolization

L6: Imagine a language like this

Noun = dog, cat

Verb = hit, saw

Rule 1: Sentence -> Noun + Verb Phrase

Rule 2: Verb Phrase -> Verb + Noun

This language will produce 6 different sentences. Write down a third rule for this language that will allow it to produce an infinite number of sentences.

Sample rule: Verb Phrase → Verb + Sentence

L7: On average, deaf children learn sign languages faster than hearing children learn spoken languages.

TRUE FALSE

## VISION

V1: In his chapter in the Norton readings, Hughes gives different examples of perceptual abilities that non-human animals have, but humans lack. Describe one of his examples (2 pts)

There are multiple answers to this question. Two examples: snakes and infrared and bats and sonar.

V2: In his chapter in the Norton readings, Hoffman focuses on what aspect of vision:

- A. **How smart it is**
- B. How automatic it is
- C. How modular it is
- D. Its structure in the primate brain
- E. Its roots in human culture

V3: Who *wouldn't* show the Stroop effect?

- A. Someone with severe damage to the amygdala
- B. **Someone who could not read**
- C. Someone who had vision in one eye

V4: Neuroscientists talk about two separate streams of visual process. What are they called? (2 pts)

**Ventral—what stream**

**Dorsal—where and how stream**

V5: The main explanation for the Moon illusion is that the illusion is due to misleading cues about ...

- A. Figure-ground
- B. **Depth**
- C. Closure
- D. Objects

V6: Which cue to depth perception does a stereoscope rely on?

**Binocular disparity**

V7: There is some evidence that playing video games damages the child's ability to focus on objects.

TRUE                  FALSE

**FREUD (Koleen McCrink)**

Open Yale courses

F1: The main focus of Freud's chapter in the Norton readings is an argument for the existence of:

- A. Defense mechanisms
- B. **The unconscious**
- C. Psycho-sexual stages
- D. Penis envy

F2: What happens at the end of the Oedipus Complex?

- A. beginning of the phallic stage
- B. penis envy
- C. excessive masculinity
- D. **beginning of latency stage**

F3: Your friend calls you anal retentive. (As if!) Give a *brief* Freudian explanation of how someone might become anal retentive – what age it would happen, and what would have to occur. (2 points)

**Age 1-3 Mishandled potty training**

F4: A Freudian believes that defense mechanisms are the sign of an abnormal psyche.

TRUE                  FALSE

F5: When parents come home with a new baby, they are shocked to find that their older child, a 4-year-old, who used to be fully toilet-trained, has now soiled his underpants. The child's behavior is an example of:

- A. projection
- B. **regression**
- C. displacement
- D. sublimation

F6: To many current psychologists, Freud's theory is unappealing. However, most psychologists would agree with him that

- A. hysteria is a major psychological problem
- B. young children have powerfully erotic feelings
- C. **unconscious processes are very important**
- D. toilet training has a profound effect on later personality
- E. C and D
- F. none of the above
- G. all of the above

F7: Critics of Freudian theory sometimes argue that it is similar to astrology. What do they say that the two have in common? (2 points)

Lack of falsifiability

F8. Gray describes a study in which men were categorized into different groups depending on the defense mechanisms that they used. It turned out that the type of defense mechanism that a person uses has no effect on his romantic and work life.

TRUE FALSE

## LOVE

L1. Sternberg describes three main characteristics of love- intimacy, passion, and commitment. Which of the following types of love is correctly paired with its characteristics?

- A. infatuated love: passion only
- B. fatuous love: passion and commitment
- C. empty love: commitment only
- D. all of the above

L2. You like an incompetent person more if you see him or her make a mistake.

TRUE FALSE

L3. On average, in good marriages, the couple fights \_\_\_\_ than in bad marriages.

- A. more
- B. less
- C. the same

L4. Many theorists believe that romantic love is similar to the attachment we form in infancy to our caregivers. There are three types of attachment. List two of them (2 points)

Two of the following: secure, anxious, avoidant

## EMOTION (Jane Erickson)

E1. Blind individuals do not show the same facial expressions of emotions due to their lack of experience seeing these emotional expressions in others.

True False

E2. Which of the following is NOT one of the basic emotions.

- A. Surprise
- B. Disgust
- C. Guilt
- D. Fear
- E. Happiness

E3. In his chapter, how does Paul Ekman explain the fact that in some cultures, people smile when they are *unhappy*? (2 points)

It is due to “display rules” about when it is appropriate to show certain emotions and when they should be masked. For example, when watching grotesque films, Japanese subjects smiled when in the presence of someone else but not when alone.

(1 point if simply say that smile is to hide real emotion of unhappiness. 0 points if just talk about coy/appeasement/greeting smiles because these are not exhibited when one is UNHAPPY. They serve a different purpose.)

E4. When two strangers from any culture approach each other in greeting, they are most likely to exhibit which of the following nonverbal signals:

- A. A waving of the hand.
- B. A raising of the eyebrows
- C. A bowing of the head
- D. A fluttering of the eyelashes
- E. A picking of the nose

E5. Which of the following is not true about smiles:

- A. Smiling is a social signal
- B. Smiling is universal
- C. Smiling is unique to humans
- D. Smiles do not always signify happiness

E6. You can tell the difference between a Duchenne (happy) smile and a Pan Am (greeting) smile by looking at one specific part of the face. Which part is this?

The eyes

E7. Why would fear be a useful biological adaptation? (2 points)

It informs us what is dangerous so we can avoid these things in order to increase our chances of survival which further enables us to reproduce and pass on our genes (including the fear genes). (1 point if simply mentions that it increases survival. In order to get two points, MUST mention

not only how it increases the “individual” survival of that animal but also how that is important so the animal can pass on its genes (since that is what makes something evolutionarily adaptive)).

E8. Billy is walking through the forest when he spots a bear behind a tree. According to James’ Peripheral Feedback Theory of Emotion, which of the following best describes the process of his emotional reaction?

- A. Perception of the bear causes tensing and trembling of the body which leads to the emotion of fear.
- B. Perception of the bear triggers the emotion of fear which leads to tensing of the body and trembling.
- C. Experiencing fear triggers perception of the bear which leads to tensing of the body and trembling.
- D. Experiencing fear triggers the tensing of the body and trembling which leads to perception of the bear.
- E. Billy decides to befriend the bear and approaches to pet him.

E9. According to Schacter’s Cognition-Plus-Feedback Theory of Emotion Susan is likely to feel \_\_\_\_\_ excited while riding a roller coaster if she drank a cappuccino beforehand.

More

Less

E10. Teresa was in a car accident in which she received brain damage. After the car accident Teresa was no longer able to evaluate the emotional significance of things in her environment (particularly things of negative significance). For instance, she would not be scared when held at gunpoint. Which brain structure do you think was damaged in the car accident?

- A. Hypothalamus
- B. Corpus Callosum
- C. Hippocampus
- D. Amygdala
- E. Thalamus

E11. You are playing the Prisoner’s Dilemma and have decided to use the *Tit-For-Tat* strategy. Your opponent makes the following first 5 moves (C = cooperate; D = defect): C D D D C. Using the Tit-for-Tat strategy, what would be your first 5 moves?

- A. C D D D C
- B. D C D D D
- C. C C D D D
- D. D C C C D
- E. None of the above



E12. In social-dilemma games, cooperation decreases as the group gets larger.

True False

E13. According to Haldane's Math and the logic of kin selection, you should sacrifice your own life to save three of your sisters.

True False

E14. People are least likely to develop a phobia of which of the following?

- A. snakes
- B. guns
- C. darkness
- D. strangers
- E. deep water

E15. Which of the following statements is true about Harlow's monkey studies of attachment:

- A. The monkeys sought out the cloth mother when presented with a fearful stimulus.
- B. The monkeys sought out the cloth mother when they wanted food.
- C. The monkeys sought out the wire mother in an unfamiliar environment.
- D. These studies proved Skinner's Cupboard Theory of Attachment correct
- E. Nourishment is more important than contact comfort in the formation of attachments

E16. Billy's family is from a culture of honor. One day when Billy is at school, a classmate insults Billy. Which response is most consistent with a culture of honor?

- a. Forgive the insult to increase future cooperation
- b. Say something to the classmate that is equally insulting
- c. Threaten or actually be violent towards the classmate to teach him a lesson.
- d. Appeal to the school authorities to handle it

### Sunny Bang (Skinner)

S1. Which of the following statements is *NOT* suggested by behaviorists?

- A) Behavior could be understood and described without reference to mental processes.
- B) A person's behavior at any given time is determined by that person's past experiences with the environment.
- C) Significant portions of a person's psychology are innate.

S2. In classical conditioning, animals develop conditioned responses (CRs) to a conditioned stimulus (CS) after the CS is repeatedly paired with an unconditioned stimulus (US). Once the

CS and the US are no longer associated, CRs to the CS decreases over trials. This phenomenon refers to \_\_\_\_\_ (circle the correct answer).

- A) habituation
- B) **extinction**
- C) spontaneous recovery
- D) operant conditioning

S3. Briefly explain John Watson's "little Albert" experiment. (3 points)

Little Albert was first presented with a rat (CS) to which he originally didn't have any aversive responses. Then, whenever he approached and touched the rat, an aversive loud noise (US) was followed. After several CS-US pairings, little Albert developed aversive responses (CRs) toward the rat even without the presence of the US.

One point if simply says little Albert learned through classical conditioning.

Two points if the CS-US pairing is not clearly mentioned (e.g. Little Albert was conditioned to a rat and developed CRs).

If the CS and the US are incorrectly identified (e.g. rat – US, a loud noise – CS), 0.5 point is taken off. Same with the case if the order of the CS and the US is reversed (e.g. a loud noise was followed by the presence of a rat).

S4. Classical conditioning depends on the predictive value of the conditioned stimulus. This fact supports the

- A) S-S association theory
- B) S-R association theory
- C) **expectancy theory**
- D) generalization theory
- E) none of the above

S5. A slot machine is a good example of a \_\_\_\_\_ schedule of reinforcement

- A) fixed interval
- B) fixed ratio
- C) variable interval
- D) **variable ratio**

S6. Training a pig to dance for poker chips could be achieved most effectively by:

- A) **shaping**
- B) partial reinforcement
- C) classical conditioning

S7. In the Norton chapter, Chomsky argues that Skinner's theory is wrong because

it does not fit with what we know from fMRI studies.

TRUE

FALSE

S8: Which of the following experiments poses a problem for the standard behaviorist theory of learning?

- A. Tolman's latent learning studies
- B. Bandura's observational learning studies
- C. Garcia's food aversion studies
- D. **All of the above**

## MEMORY

M1. Fill in the three boxes (A,B,& C) with appropriate terms. (3 points).

A : **Sensory Memory**

B : **Working (short-term) memory**

C : **Long-term memory**

M2. Briefly describe the "compatibility principle".

**Retrieving certain knowledge (or items) from your memory is better performed in a condition (or an environment) under which you initially encoded the knowledge. (The answer should clearly demonstrate the state-dependent memory or performance.)**

**Half a point if simply mentions that it is a relationship between encoding and retrieval.**

M3. The patient H.M. had his implicit memory impaired. But his explicit memory was intact

TRUE

FALSE

M4. In his chapter in the Norton volume, Schacter describes how certain amnesic patients were still able to learn:

- A. new motor skills
- B. new trivia facts
- C. **both of the above**
- D. neither of the above

M5. Describe one experiment showing that eyewitness memories are often unreliable (3 points)

**Any experiment discussed in the textbook or the lecture (e.g. Sam Stone's visit, 9.11 terror attack recall, car accident experiment (smashed vs. hit) etc.)**

Two points if the experiment is not illustrated enough.

Two points if one describes two experiments and one of which is incorrect.

Zero point if the experiment is one of the followings:

1. The artificial Gorilla experiment
  2. Changing a stranger while asking a direction to a subject
  3. Watching a video dialogue of two ladies (during which the plates, scarf, cups change)
- (=> These are actually relevant to attention or selective viewing.)

M6. Which of the following is evidence for Baddeley's theory of a "phonological loop"?

- A. It's easier to remember one syllable words than two syllable words
- B. It's easier to remember stories that make sense to you
- C. Memory can be distorted by schemas.
- D. All of the above
- E. None of the above

### Gregory Laun (BRAIN)

B1. In his Norton chapter, Damasio tells the story of Phineas Gage. He says that this sad story is worth telling because it

- A. shows how the mind and the brain are one and the same
- B. shows that there are systems in the brain dedicated to social and emotional reasoning more than anything else.
- C. shows how mild but frequent violations of social norms can cause serious disruption in a person's life.
- D. shows that one really can make a living as a circus freak

B2. In his Norton chapter, Sachs talks about Christina, who loses the ability of *proprioception*. She had to compensate by

- A. relying on her sense of balance
- B. using specialized machinery
- C. using her vision
- D. changing her diet
- E. None of the above

B3. On the somatosensory homunculus, which of the following parts would be the largest?

- A. Face
- B. Knee
- C. Back
- D. Stomach

B4. One problem with neural networks is that even minor damage causes them to stop working.

True

False

B5. What symptoms are common for patients with damage to the cerebellum?

- A. **Loss of ability to execute well-timed sequences of muscle movements.**
- B. Loss of ability to store explicit memories
- C. The inability to recognize acquaintances.
- D. Loss of social inhibitions.

B6. There are two basic types of synapses. These are:

- A. **Fast and slow**
- B. Electrical and chemical
- C. Agonist and antagonist
- D. Axon and dendrite.

B7. Split brain patients typically exhibit which of the following side effects?

- A. Frequent epileptic seizures.
- B. A noticeable drop in IQ.
- C. An inability to coordinate the two sides of the body in ordinary tasks.
- D. **None of the above.**

B8. Draw a neuron. (It doesn't have to be a pretty picture). Clearly mark which part of the neuron is the Axon, which are the dendrites, and which is the cell body.

## **RATIONALITY**

R1. Imagine an urn that contains 6 balls. Four of the balls are green, and two are red. Suppose we take a ball at random from the urn, show it to everybody, and then place it back. Suppose for each drawing you have to bet what color the ball drawn will be. What is the best strategy for betting in this scenario?

- A. Bet on red  $\frac{2}{3}$  of the time and green  $\frac{1}{3}$  of the time.
- B. Bet on green  $\frac{2}{3}$  of the time and red  $\frac{1}{3}$  of the time.
- C. Always bet on red.
- D. **Always bet on green.**

R2: The language that a child speaks has an effect on how good he or she is at math.

**TRUE**

FALSE

R3. Why do people over-estimate the chance of being killed by a terrorist attack? (in your answer, be sure to name the relevant reasoning bias) (2 points)

Availability heuristic—Terrorist attacks are more prominent in people’s minds, widely reported in the news and are a frequent topic of conversation and policy.

## EVOLUTION

E1: The blind spot in the visual field is a nice illustration of:

- A. The clever way in which natural selection can solve an engineering problem
- B. The important distinction between proximate and ultimate causation
- C. **The fact that evolutionary adaptations sometimes have flaws and limitations**

E2: What does Pinker mean when he says that psychology is reverse-engineering?  
(2 points)

**Trying to figure out how some system was designed.**