

University of California, Berkeley  
Department of Psychology

Psychology W1  
Summer 2015

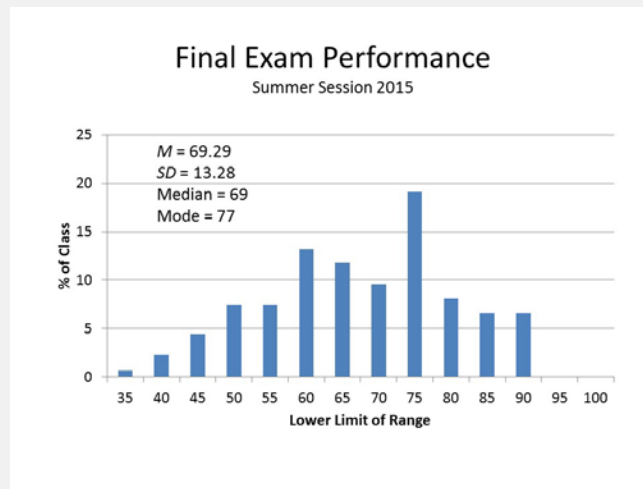
Final Examination

Final Feedback

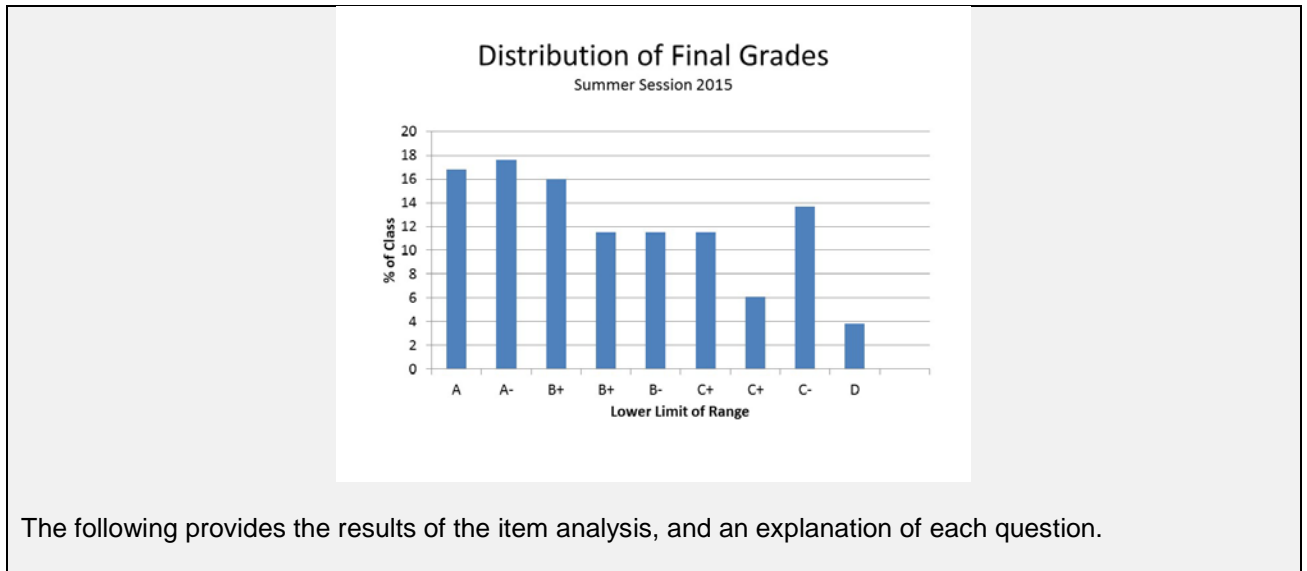
The following is the initial scoring key for the Final Exam, plus an explanatory paragraph for each question.

The initial scoring of the exam yielded a mean score of 58.89,  $SD = 12.85$ , or 59%. This was somewhat lower than my usual range of 65-70%. However, the statistical analysis yielded several items that had *both* low pass percent and low item-to-total correlation. These “bad items” were rescored correct for all responses: #9, 16, 17, 28, 30, 39, 50, 55, 59, 81, 89, 91, and 93.

After rescoring, the mean score rose to 69.29,  $SD = 13.28$ , or 69% -- at the upper edge of my usual range. The chart shows the distribution of Final Exam scores.



Final Exam grades posted to the Canvas gradebook reflect this rescoring. The chart shows the distribution of letter grades in the course.



Choose the *best* answer to each of the following 100 questions. Questions are drawn from the text and lectures in roughly equal proportions, with the understanding that there is considerable overlap between the two sources. Usually, only one question is drawn from each major section of each chapter of the required readings; again, sometimes this question also draws on material discussed in class. Read the entire exam through before answering any questions: sometimes one question will help you answer another one.

Most questions can be correctly answered in one of two ways: (1) by fact-retrieval, meaning that you remember the answer from your reading of the text or listening to the lecture; or (2) inference, meaning that you can infer the answer from some general principle discussed in the text or lecture. If you cannot determine the correct answer by either of these methods, try to eliminate at least one option as clearly wrong: this maximizes the likelihood that you will get the correct answer by chance. Also, go with your intuitions: if you have actually done the assigned readings and attended the lectures, your "informed guesses" will likely be right more often than they are wrong.

A provisional answer key will be posted to the course website tomorrow, after the window for the exam has closed. The exam will be provisionally scored to identify and eliminate bad items. The exam will then be rescored with bad items keyed correct for all responses. Grades on the *rescored* exam will be posted to the course website. A final, revised, answer key, and analyses of the exam items, will be posted on the course website after grades are posted.

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**Noncumulative Portion**

1. When infants look at a picture of a face, does it matter how realistic the picture is?

- A. To capture an infant's attention, the face must be highly realistic.
- B. The face must have the eyes on top. Otherwise, distortions don't matter much. \*\*
- C. The face must be smiling. Otherwise, distortions don't matter much.
- D. Anything remotely like a face captures attention equally well.

**32% of the class got this item correct; item-to-total  $r_{pb} = .53$ .** Chapter 5. Infants have a different concept of "face" than adults do. They will look equally long at normal or distorted faces. The only difference is that they will look more at normal or distorted faces that are right side up, with the eyes on top.

2. According to Piaget, children in which stage of development respond only to what they see and hear at the moment, rather than what they might remember?

- A. preoperational
- B. sensorimotor \*\*
- C. formal-operations
- D. concrete-operations

**77% correct,  $r_{pb} = .43$ .** Chapter 5. Piaget defined four stages of intellectual development, the first being the sensorimotor phase from birth to almost 2 years. In this stage, children will only respond to what they see and hear at the moment. They will not respond to objects seen even a few moments before, because they lack object permanence.

3. What do children do in the formal-operations stage that they do not do in the concrete-operations stage?

- A. understand that an object maintains its weight and volume after a change in its shape
- B. reach around a barrier to retrieve a hidden object
- C. develop a systematic strategy for solving a problem \*\*
- D. distinguish between appearance and reality

**74%, .36.** Chapter 5. Children in the concrete-operations phase of development are between ages 7-11, and children in the formal-operations stage are about 11 and up. The difference in these stages is that in concrete-operations, children will solve problems regarding concrete objects, but struggle with abstract or hypothetical ideas. Once they reach the formal-operations stage, they will start using logical and deductive reasoning, as well as systematic planning to solve problems.

4. Which of the following is an important limitation on psychologists' research concerning infant-mother attachment?

- A. Patterns of attachment often change drastically from one day to another.
- B. Attachment patterns in infancy have little to do with behavior later in life.
- C. The Strange Situation cannot be used for children less than two years old.
- D. Tests that work in the United States may be misleading in other cultures. \*\*

**70%, .43.** Chapter 5. There can be difficulties in attachment measurement methodologies across cultures. While attachment styles are similar across cultures, cultural manifestations of attachment may differ. For instance in South Africa, Westerners demonstrated less consistency when measuring attachment, but when the South Africans did it, they were much more accurate, therefore tests that work in the U.S. may be misleading in other cultures.

5. "Tragedy will never strike me...." "I will succeed in all my ambitions...." "Everyone notices how I look." According to David Elkind, these beliefs are part of the adolescent's
- A. identity crisis.
  - B. preoperational thinking.
  - C. personal fable. \*\*
  - D. moral dilemma.

**68%, .45.** Chapter 5. According to David Elkind, the personal fable is a set of beliefs that lead to the overall conviction "I am special". It is most common among teenagers and can support an optimistic outlook on life.

6. Many psychologists now argue that parents' actions have little effect on their children's personality. What is the main evidence for this conclusion?
- A. Adopted children's personality correlates poorly with that of the adopting parents. \*\*
  - B. Researchers located a gene that controls most personality variations.
  - C. On average, personality does not vary among cultures or generations.
  - D. First-born children differ substantially from later-born children.

**55%, .34.** Chapter 5. Several studies have shown that the personalities of adopted children and their adopted parents do not correlate, suggesting that parenting style has little influence on personality and instead that most personality variation is dependent on genetic differences.

7. On a questionnaire measure of extraversion, the correlation between monozygotic twins is .48 and the correlation between dizygotic twins is .24. This means that:
- A. most of the variance is due to genetic factors.
  - B. most of the variance is due to the nonshared environment. \*\*
  - C. most of the variance is due to the shared environment.
  - D. the components of variance cannot be determined without knowing whether the twins were raised together or apart.

**70%, .17.** Lecture 33. Assuming a trait is solely determined by genes, we would expect the correlation for monozygotic twins to be 1 because they are identical, and .5 for dizygotic due to genetic similarity. Here, equations for genetic and environmental variance come into play. Genetic variance is measured as  $G = 2 * (MZ - DZ)$ , so genetic variance is equal to  $2 * (.48 - .24) = .48$ . Variance due to non-shared environment is  $E_{NS} = 1 - G$ , equal to  $1 - .48 = .52$ , and variance due to shared environment is  $E_S = 1 - G - E_{NS}$ , so  $1 - .48 - .52 = 0$ . Therefore, most of the variance, .52, is due to the non-shared environment.

8. Donald, an extravert, doesn't know how to interact with his son, Hughie, who is an introvert, but does just fine with his daughter, Louise, who is also an extravert. This situation illustrates the role of \_\_\_\_\_ in within-family differences in personality.
- A. child-driven effects.
  - B. relationship-driven effects. \*\*
  - C. parent-driven effects.
  - D. family context effects.

**47%, .24.** Lecture 34. Relationship-driven effects have to do with the “fit” between the child and parent in terms of appearance and temperament. A parent that struggles to interact with a child that is temperamentally different (extravert vs. introvert) is an example of a relationship-driven effect.

9. Genetic males with the androgen insensitivity syndrome:

- A. have apparently female external genitalia.
- B. are more “tomboyish” than average girls.
- C. have masculine external genitalia, but are raised as girls.
- D. are less aggressive and competitive than average boys. \*\*

**23%, .09; a bad item.** Lecture 35. Individuals born with the androgen-insensitivity syndrome are chromosomally male (XY), but born without male genitalia. They may be born with an enlarged clitoris and testes but the testes are typically surgically removed and they are raised as female. Behaviorally, they are indistinguishable from females, therefore less aggressive and competitive than average boys.

10. According to the “theory theory” of cognitive development:

- A. Piaget was wrong to characterize the child as a naive scientist.
- B. children acquire their understanding of the world through learning. \*\*
- C. the newborn’s mind is a “blank slate”, or *tabula rasa*.
- D. young children are unable to think theoretically.

**72%, .33.** Lecture 36. The “theory” theory of cognitive development is that the developing child is engaged in a continuous process of proposing, testing, revising, and rejecting theories of how the world and minds work. In effect, they are acquiring understanding of the world through learning.

11. An experimenter presents two tones, A and B, in this pattern: AAAAB, AAAAB, AAAAB, and AAAAB. How might we test whether the listener is conscious?

- A. Present AAAAB. A conscious person shows an enhanced response to the final B.
- B. Present AAAAA. A conscious person shows an enhanced response to the final A. \*\*
- C. Present AAAAA. A conscious person shows a decreased response to the final A.
- D. Present AAAAB louder than before. An unconscious person shows an enhanced response.

**70%, .32.** Chapter 10. When testing a conscious or vegetative person, both will show an enhanced brain response to the B in the sequence AAAAB. However, presenting that sequence repeatedly, then following it with AAAAA will show an enhanced brain response only in the conscious individuals in the final A, because they have learned the pattern, but not in vegetative individuals.

12. If people stay awake for days in a row, what happens to their alertness?

- A. It declines steadily throughout this period.
- B. Despite an overall downward trend, it rises and falls depending on time of day. \*\*
- C. It declines for the first 24 hours and then remains steady.
- D. It remains steady throughout the entire period.

**75%, .38.** Chapter 10. Our circadian rhythm is the rhythm of activity and inactivity lasting about a day, and cues our body to signal tiredness, hunger, thirst, and urine production. In this sense, we are programmed to be tired at night, and wakeful in the morning. In studies where people stay awake for days in a row, they will experience a downward trend in alertness, but due to their circadian rhythms, they will still be more tired at

night and more wakeful in the morning.

13. The brain activity associated with REM sleep is most similar to that associated with

- A. Stage 1 sleep. \*\*
- B. Stage 2 sleep.
- C. Stage 3 sleep.
- D. Stage 4 sleep.

**28%, .31.** Chapter 10. Sleep stages are differentiated by long, slow waves that indicate synchrony among the neurons and relate to decreased brain activity. The higher the sleep stage, the less brain activity occurs. REM sleep resembles stage 1 sleep, but is also marked by rapid eye movement (REM).

14. What type of person is generally most susceptible to hypnosis?

- A. people who respond emotionally to movies as if the events were real \*\*
- B. people with low self-esteem
- C. people with low intelligence
- D. people who are personally acquainted with the hypnotist

**74%, .27.** Chapter 10. People who are highly suggestible are more susceptible to hypnosis because it resembles and enhances suggestibility. Those who are highly suggestible and easily hypnotized also tend to have a strong emotional response to books and movies, as if the events were actually happening.

15. What effect does hypnosis have on memory, according to research?

- A. Hypnosis enables people to recall unpleasant memories they had forgotten.
- B. Hypnosis improves memories going back to about age 4, but not earlier.
- C. Hypnosis improves memories going back to at least age 2.
- D. Most of the "memories" newly reported under hypnosis are incorrect. \*\*

**72%, .53.** Chapter 10. A hypnotized person asked to remember more about an event will produce more correct and incorrect memories, although most of the new ones will be incorrect. Non-hypnotized people asked to guess additional information about an event have a similar rate of producing correct and incorrect guesses, and the only difference is that hypnotized people will recall the incorrect information with more confidence.

16. The difference between implicit perception and implicit memory is that:

- A. implicit memory refers to semantic and procedural knowledge.
- B. in implicit memory, the subject consciously processed the to-be-remembered event. \*\*
- C. implicit perception lasts longer than implicit memory.
- D. implicit memory is revealed by priming effects.

**19%, .05; a bad item.** Lecture 37. Implicit perception refers to an effect of a current event on experience, thought, or action that is not consciously perceived, while implicit memory refers to the effect of a past event on experience, thought, or action that was consciously processed, but is not remembered by the subject.

17. Which of the following does the biopsychosocial model of mental illness emphasize?

- A. Some mental disorders have biological causes and others have psychological or social causes.
- B. Something that seems normal in one culture might be abnormal in another. \*\*
- C. Drug treatments are generally the most effective treatments for mental illness.
- D. Mental illnesses are more common in some countries than in others.

**4%, .14; a bad item.** Chapter 15. The biopsychosocial model of mental illness emphasizes three aspects of abnormal behavior: biological, psychological, and sociological. From the sociological perspective, this means that behavior must be understood in a social and cultural context. Therefore, something that seems normal in one culture (such as public drunkenness) might be abnormal in another.

18. The psychological disorders that are diagnosed most frequently in the United States are

- A. substance abuse, mood disorders, impulse control problems and anxiety disorders. \*\*
- B. depression, schizophrenia, and dissociative identity.
- C. obsessive-compulsive disorder, substance abuse, and schizophrenia.
- D. anxiety disorders, sexual disorders, and eating disorders.

**68%, .17.** Chapter 15. Half of all people in the U.S. qualify for a DSM diagnosis at some point in their life. The most common disorders are anxiety disorders, mood disorders, impulse control problems, and substance abuse.

19. Panic disorder is frequently linked with what other disorder?

- A. obsessive-compulsive disorder
- B. social phobia \*\*
- C. dissociative identity disorder
- D. conversion disorder

**60%, .42.** Chapter 15. Many people with panic disorder will also develop agoraphobia (fear of public places) or social phobia (avoidance of others and a fear of doing anything in public). This is because they are afraid of being incapacitated or embarrassed by having a panic attack in public.

20. The most common, and highly successful, therapy for phobia relies on

- A. understanding the unconscious motivations behind the fear.
- B. explaining to the person why the fear is irrational.
- C. punishing the person for any attempt to avoid the object.
- D. gradual exposure to the feared object. \*\*

**87%, .27.** Chapter 15. The most common and successful treatment for phobia is systematic desensitization, a method of reducing fear by gradually exposing people to the object of their fear.

21. To determine whether you are an alcoholic or not, which question should you ask?

- A. Do I drink alcohol every day?
- B. Can I sometimes go several days without drinking alcohol?
- C. Do I drink more on weekends than during the week?
- D. Does alcohol cause serious troubles in my life? \*\*

**66%, .27.** Chapter 15. An alcoholic has a dependence on or an addiction to the overuse of alcohol. Though many of these questions are relevant, the most important questions in determining if alcoholism is an issue for you are “Does alcohol cause serious trouble in my life” and “Do I find myself saying I will quit after a certain amount and then find myself unable to stop at that point?” These questions apply to all addictions.

22. What is the focus of “contingency management” as a way of combating substance abuse?

- A. getting people to stop thinking about the substances they have abused
- B. bringing current and former substance abusers together for discussions
- C. providing rewards for abstaining from substance use \*\*
- D. shifting people from a harmful substance to a less harmful one

**58%, .31.** Chapter 15. Contingency management uses immediate reinforcement for maintaining sobriety. For instance, a therapist might use a breathalyzer or urine sample to determine if a teenager has drugs or alcohol in his system, and then provide a movie pass or pizza voucher to him if he does not.

23. What is the usual time course for major depression?

- A. Once someone develops depression, it gets worse and worse over time.
- B. In most cases depression remains at about the same level for the rest of life.
- C. Typically, someone with depression recovers and has no more problems.
- D. Typically, depression occurs in a series of episodes separated by normal mood. \*\*

**77%, .37.** Chapter 15. Depression is a condition in which a person experiences little interest, pleasure, or motivation for weeks at a time. Once someone develops depression, they typically do not remain permanently depressed. Usually they recover, returning to a normal mood after a few months, but the depression is likely to return for briefer, but more frequent episodes in the future.

24. A research study finds that 40% of depressed patients show noticeable improvement after 6 months of treatment with a new drug. The researchers conclude that the drug is effective. What, if anything, is wrong with this conclusion?

- A. Nothing is wrong with this study.
- B. We can't be satisfied with helping anything less than 100% of depressed patients.
- C. The study should have evaluated people's improvement after just one week.
- D. The study should have included a control group who got no treatment. \*\*

**87%, .39.** Chapter 15. This study does not have a control group, a group that takes part in the experiment but does not receive the treatment. The control group is used as a comparison to the experimental group. This is necessary because researchers can't be sure the people in the experiment would have showed improvement without the drug, and therefore need a group to compare to. Most studies won't help 100% of patients, and depression treatments usually take more than a few weeks to work properly (ruling out B & C).

25. What are the advantages of atypical (“second generation”) antipsychotic drugs?

- A. They produce their benefits more rapidly.
- B. After about a month, people can stop taking the drugs.
- C. They don't produce tardive dyskinesia. \*\*
- D. They don't impair the immune system.



**38%, .63.** Chapter 15. Many antipsychotic drugs cause tardive dyskinesia, a condition characterized by tremors and involuntary movements. This is thought to be a result of the blocked dopamine synapses, some of which control movement. Atypical antipsychotic drugs, such as risperidone and clozapine, relieve schizophrenia without causing tardive dyskinesia, even though they have side effects of their own.

26. One trend in psychiatry over the years has been to

- A. collapse all psychiatric diagnoses into just a few major categories, instead of drawing distinctions among different types of disorders.
- B. give a psychiatric diagnosis to more and more clients, including some who have only minor and understandable difficulties. \*\*
- C. treat more and more people with psychoanalysis and fewer people with drugs or other medical interventions.
- D. keep people in large mental hospitals for longer and longer periods of time.

**47%, .29.** Chapter 15. It has become common for therapists to diagnose more and more clients. The reason for this is that many insurance companies will cover psychotherapy only under specific circumstances. Most companies will only cover a limited amount of sessions, based both on their policies and the insured's needs. It is typically to the patient's benefit to be diagnosed with a disorder to ensure they can be covered for psychotherapy.

27. Studies that evaluate the effectiveness of psychotherapy generally find that

- A. people who receive no treatment are just as likely to improve as those who receive psychotherapy.
- B. almost no psychologically disturbed people improve without the benefits of psychotherapy.
- C. people are actually more likely to improve without psychotherapy than with it.
- D. the average psychotherapy patient improves more than do about 80% of the untreated people. \*\*

**77%, .41.** Chapter 15. People can achieve spontaneous remission without attending therapy. A meta-analysis pooling the results of 475 experiments comparing people who had therapy with those who wanted therapy but were put on a waiting list found that the average person in therapy showed greater improvement than 80% of the untreated people.

28. The symptoms of the personality disorders are \_\_\_\_\_ in nature:

- A. neurotic
- B. psychotic
- C. ego-syntonic \*\*
- D. ego-dystonic

**34%, .15; a bad item.** Lecture 38. Personality disorders are deeply ingrained patterns of maladaptive behavior, typically developed during adolescence. Symptoms of personality disorders are ego-syntonic, meaning that they are experiences as part of their normal personality, which differs from ego-dystonic, meaning they are alien and unwanted.

29. Clinically, flat or blunted affect is one of the characteristic symptoms of schizophrenia. Laboratory studies show that schizophrenic patients:

- A. report low levels of positive affect but high levels of negative affect
- B. report low levels of negative affect but high levels of positive affect.
- C. display excessive facial expressions of emotion.
- D. display diminished facial expressions of emotion. \*\*

**68%, .28.** Lecture 39. Schizophrenics tend to exhibit flat or blunt affect, meaning they show diminished facial expressions of emotion (confirmed by laboratory studies). However, studies also show that while they appear less emotionally responsive, they do still experience negative and positive emotion similar to control subjects.

30. Twin studies show that the genetic contribution to mental illness is strongest for:

- A. anxiety disorder.
- B. schizophrenia
- C. bipolar affective disorder \*\*
- D. unipolar affective disorder

**25%, -.01; a bad item.** Lecture 40. Twin studies can demonstrate the concordance rates, or the genetic contribution, for mental illnesses. In schizophrenia it is 38% for MZ twins, and 14% for DZ twins. In bipolar affective disorder it is 72% for MZ twins and 28% for DZ twins (the highest overall). In unipolar affective disorder it is 40% for MZ twins and 11% for DZ twins.

31. The outcome of psychotherapy:

- A. is better for psychosis than neurosis.
- B. is better with long-term psychodynamic forms of psychotherapy.
- C. is better with cognitive-behavioral therapy than client-centered therapy. \*\*
- D. is better for adults than for children.

**66%, .44.** Lecture 41. Compared to untreated controls, the effectiveness of cognitive behavioral therapy is in the 88<sup>th</sup> percentile, whereas the effectiveness of client-centered therapy is in the 71<sup>st</sup> percentile.

32. In Rosenhan's "pseudopatient" study, most of the confederates:

- A. were discovered through careful diagnostic procedures.
- B. received active group therapy during their stay in the hospital.
- C. were treated with medication. \*\*
- D. were held in the hospital until their insurance ran out.

**45%, .47.** Lecture 42. In Rosenhan's pseudopatient study, researchers gained admission to mental hospitals by acting normally, but claiming to experience auditory hallucinations. Most were diagnosed with schizophrenia. In the hospitals, they no longer claimed they had hallucinations, but were still given medications. Many other patients recognized they were not mentally ill, but the doctors typically did not and most were released from the hospitals with the diagnosis of schizophrenia in remission.

33. Cognition, emotion, and motivation:

- A. are separate mental faculties
- B. mutually influence each other. \*\*
- C. are based in the hindbrain, midbrain, and forebrain, respectively.

D. are based in the midbrain, forebrain, and hindbrain, respectively.

**85%, .12.** Lecture 43. One of the important themes in psychology, and in this course, is that psychology involves interaction. One of the aspects of mutual influence studied is the interaction between cognition, emotion, and motivation. Feelings and desires affect our memories, perceptions, and thoughts at the same time as our feelings and thoughts are a product of cognitive activity.

### **Cumulative Portion**

34. Which question below is NOT a question of nature vs. nurture?

- A. Are boys more aggressive than girls because of higher testosterone levels, or because of the way they are raised?
- B. Is alcoholism entirely due to social customs, or is it influenced by certain genes?
- C. Do high-IQ parents have high-IQ children because of the stimulating environment they provide, or because of the genes they pass on to their children?
- D. Do phobias develop through classical conditioning, or through observing models reacting to the feared stimulus? \*\*

**94%, .40.** Chapter 1. The nature vs. nurture issue, also known as the heredity-environment issue questions how differences in behavior relate to differences in heredity and the environment. Choices A through C all fit this definition in that they examples of how behaviors may be a result of genetics or cultural/environmental factors, whereas D describes only how the environment can impact behavior.

35. A psychological explanation of behavior is in terms of:

- A. brain states.
- B. mental states. \*\*
- C. environmental influences
- D. gene-environment interactions.

**75%, .32.** Lecture 1. William James, an early American psychologist, defined psychology as “the science of mental life.” In line with this definition, the aim of psychology is to explain and describe states of mind, or mental states. Psychology often involves changes in brain states, environmental influences, or gene-environment interactions, but these are relevant within psychology only in terms of how they may be responsible for or relate to differing mental states.

36. Cocaine and other drugs that affect behavior exert their effects by altering:

- A. the threshold for producing an action potential.
- B. the activity at synapses. \*\*
- C. blood flow to the brain.
- D. heart rate and digestive activity.

**96%, .08.** Chapter 3. A synapse is the specialized junction between one neuron and another, where one neuron releases a chemical that can either excite or inhibit the next neuron. More specifically, on the axon of one neuron is a terminal button (or presynaptic ending) that releases these chemicals, called neurotransmitters, which bind to receptors on the postsynaptic neuron. Most drugs increase or decrease the release of transmitters or decrease reuptake (the return of the transmitters to the neuron that released them). Cocaine, in particular, is a stimulant that blocks the protein that the presynaptic neuron uses to reabsorb dopamine.

37. Scott has been asked what he just saw in his left visual field. He points to the correct answer with his left hand while insisting, "I didn't see anything!" What is probably wrong with him?

- A. damage to the hippocampus
- B. narcolepsy
- C. damage to the corpus callosum \*\*
- D. schizophrenia

**77%, .41.** Chapter 3. Scott likely has had damage to his corpus callosum, the axons that connect the right and left hemispheres of the cerebral cortex in the brain. Those who have had damage to this area or have had it surgically severed have a "split-brain". The left hemisphere of the brain experiences the world through the right side of the body, and the right does so through the left side. For most people, the left hemisphere also controls speech. Those with a split-brain that feel something in their left hand will interpret it with their right hemisphere. They are able to point to the object with that hand, but since the hemispheres are no longer connected, the speech area of the brain is not aware of the object and therefore the person will not be able to verbally describe it.

38. The thalamus functions as a:

- A. regulator of biological motives.
- B. sensory relay station. \*\*
- C. regulator of cortical arousal.
- D. modulator of vegetative functions.

**68%, .32.** Lecture 3. The thalamus relays incoming sensory signals to the appropriate parts of the brain, fitting answer choice B. The hypothalamus regulates biological motives (choice A), the pons and reticular formation regulate cortical arousal (choice C), and the medulla controls vegetative functions (choice D).

39. A neurological patient has difficulty speaking, but also writing and understanding spoken and written language. His brain damage is probably located in the \_\_\_\_\_ lobe.

- A. frontal
- B. parietal
- C. temporal \*\*
- D. occipital

**38%, .16; a bad item.** Lecture 4. This patient likely has Wernicke's aphasia, characterized by nonsensically worded speech, as well as issues in understanding others' speech and being able to write. Wernicke's aphasia is associated with lesions in Wernicke's area, located in the lateral temporal lobe. The temporal lobe is the main area for hearing and certain parts of vision. Broca's aphasia is another speech issue associated with brain lesions. Patients with Broca's aphasia do not have issues understanding speech or writing, and the lesions are in Broca's area, in the lateral frontal lobe.

40. Which of the following is a possible OPERATIONAL definition of happiness?

- A. the emotional state achieved when the perceived self is congruent with the ideal self
- B. the number of minutes in an hour during which a person smiled at least once \*\*
- C. the opposite of sadness
- D. a feeling of pleasantness or contentment

**62%, .27.** Chapter 2. An operational definition of a variable is a definition that specifies the operations used to measure it. This is a way to give it numeric value to make it measurable. In this case choice B is a

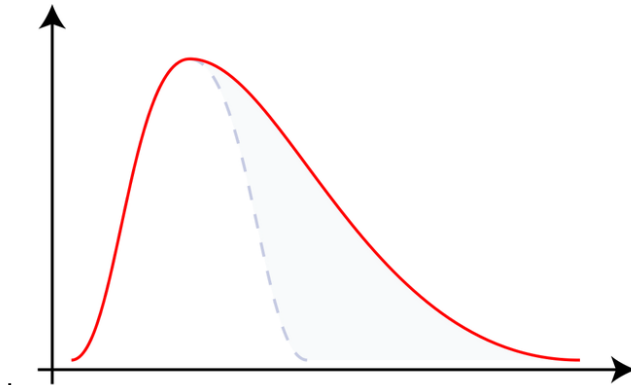
numeric way to measure happiness (i.e. I smiled at least once in 15 separate minutes within one hour), whereas choices A, C, and D are not defined in a way that specifies measurability.

41. A researcher compares 80 people who join Alcoholics Anonymous (AA) with 80 people who don't join. A year later, on average, those in the AA group are drinking less than those in the non-AA group. What prevents us from evaluating the effectiveness of the AA procedure?

- A. lack of an independent variable
- B. lack of a dependent variable
- C. lack of random assignment to groups \*\*
- D. lack of demand characteristics

**74%, .47.** Chapter 2. An essential procedure in any experiment is random assignment, in which the experimenter uses a chance procedure to make sure that each participant has the same probability as any other participant of being assigned to a given group. In this case, the group that joined AA most likely did so because they already wanted to drink less, whereas we don't know that about the non-AA group, therefore this leaves open the plausible explanation that it was simply the person's motivation leading them to drink less and not the AA effectiveness at all. Selecting from a group of people who all want to drink less and assigning a random subset of this group to attend AA would be a better research design. This study has an independent variable (the manipulated variable: AA vs. non-AA group, not choice A), a dependent variable (the measured outcome variable: alcohol consumption, not choice B), and as far as we know, no demand characteristics (cues that tell the participants what the experimenter hopes to find, not choice D).

42. In the distribution displayed below, the \_\_\_\_ is the best measure of central tendency.



In a distribution such as this:

- A. mean.
- B. median \*\*
- C. mode
- D. the answer depends on the coefficient of variance.

**43%, .22.** Lecture 6. This distribution is positively skewed, in that there are relatively few higher scores in this distribution (and lower scores). When a distribution is skewed, the median is a better measure of central tendency because the mean will be pulled in the direction of the skew (in this case it will be higher than the median due to the positive skew)

43. Subjects in an experiment are randomly assigned to two conditions: those in Group A read a passage about photosynthesis; those in Group B read an extract from Emerson's essay on "Self-Reliance". When all the subjects take a test of "conscientiousness", subjects in Group A had a mean score of 45, with a standard error of 3.5; subjects in Group B had a mean score of 56, with a standard error of 3.0. From this we can conclude:

- A. nothing, because there was no pre-test on the conscientiousness scale.
- B. nothing, because many other variables might have been confounded with the conscientiousness scale.
- C. reading the Emerson essay had no effect on conscientiousness.
- D. reading the Emerson essay caused subjects to feel more conscientious. \*\*

**47%, .27.** Lecture 6. This study demonstrates that Group B (Emerson) has a significantly higher mean than Group A (photosynthesis, or control), and therefore the Emerson essay caused subjects to be more conscientious. We know this is a significant difference because the 95% confidence interval for Group B mean is 53-59, and for Group A is 41.5-48.5, and these do not overlap, ruling out choice C. It is also not A & B, due to random assignment, which will eliminate confounding variables such as pre-test conscientiousness, or other variables that confound conscientiousness.

44. If tolerance to a drug injection is based on classical conditioning, what procedure would lead to the extinction of the tolerance?

- A. Administer electric shocks whenever the person attempts to take an injection.
- B. Take injections of a large amount of the drug as frequently as possible.
- C. Wait a long time between one injection and the next.
- D. Go through the injection procedure without the drug itself. \*\*

**53%, .54.** Chapter 6. Drug tolerance (experiencing progressively weaker effects of a drug after taking it repeatedly) can be a result of classical conditioning. In terms of classical conditioning, the injection of the drug can be thought of as the conditioned stimulus (CS), the drug entering the brain the unconditioned stimulus (UCS), and the body's defenses as the unconditioned response (UR). Perpetual pairing of the CS and UCS will lead the body to put up its defenses to just the CS (injection), leading to a conditioned response (CR). At this point, the body has developed a tolerance because it prepares its defenses as soon as either stimuli occurs and more drugs are needed to elicit a response. The tolerance can be made extinct by destroying the association between the CS (injection) and the CR (defenses). In order to do to this, the CS (injection) needs to stop being paired with the UCS (drugs entering brain), so going through the injection procedure without injecting the drug would bring the tolerance to extinction because the body will no longer prepare its defenses in response to the injection.

45. Social learning theory stresses that much of our behavior is learned through

- A. negative reinforcement.
- B. aversion and terror management.
- C. imitation and modeling. \*\*
- D. classical conditioning.

**94%, .31.** Chapter 6. Social learning theory asserts that we learn by observing the behavior of others, then mimicking it. Birds learn birdsong through social learning, and humans learn driving through it.

46. For 10 trials, a dog hears a tone of 750 cycles per second (cps, or hertz) followed immediately by food. On Trial 11, he hears a tone of 1250 cps. What is his response?

- A. The dog will salivate after presentation of the new tone. \*\*
- B. The dog will begin to salivate, if the new tone is also paired with food.
- C. We cannot tell, unless we know whether the new tone is paired with food.
- D. We cannot tell, unless we know whether the old tone continues to be paired with food.

**40%, .21.** Lecture 8. The dog will salivate due to generalization. Generalization is generalizing the conditioned response to a stimulus that is similar to the conditioned stimulus. Because the dog has not learned to discriminate among tones and has heard only one, he is most likely to engage in generalization due to the similar sound.

47. In a study of observational learning, rhesus monkeys showed vicarious fear conditioning:

- A. when confronted with real snakes, but not toy snakes.
- B. when confronted with flowers as well as snakes.
- C. when both relatives and unrelated adults served as models. \*\*
- D. despite being "immunized" by prior exposure to benign snakes.

**55%, .46.** Lecture 10. Vicarious or observational learning is the idea that organisms can learn by observing other organisms' responses to stimuli. In this case, rhesus monkeys reared in the wild fear snakes, and those raised in a lab do not. Susan Mineka discovered that lab-reared rhesus monkeys can learn to fear snakes by watching a fear response from a related or unrelated wild-reared rhesus monkey when it came into contact with a snake.

48. Which theory emphasizes that we perceive visual and auditory stimuli in terms of overall patterns, not individual components?

- A. Gestalt psychology \*\*
- B. Young-Helmholtz theory
- C. behaviorism
- D. psychoanalysis

**75%, .54.** Chapter 4. Gestalt psychology is a field of psychology that emphasizes perception of overall patterns. Gestalt psychologists choose to see perception as a whole, instead of breaking it down into its component parts. Young-Helmholtz theory is trichromatic theory, behaviorism is the study of psychology from a behavior, as opposed to mental or functional perspective, and psychoanalysis is the Freudian study of unconscious psychological beliefs.

49. Retinal disparity is important when trying to determine

- A. which emotion another person is currently experiencing.
- B. how far away something is from you. \*\*
- C. someone's current stage of sleep.
- D. which of two reinforcers will be most effective in controlling a response.

**89%, .29.** Chapter 4. Retinal disparity is the difference in the apparent position of an object as seen by the left and right retinas. It can be demonstrated through noticing that something far away from your eyes will appear in a slightly different position if looked at with one eye closed, but something much closer will appear in almost the same position. It helps to determine how far something is away from you.

50. The skin senses and proprioception have their \_\_\_\_\_ in common.

- A. proximal stimuli
- B. receptor organs
- C. sensory tracts \*\*
- D. cortical projection areas

**28%, .01; a bad item.** Lecture 11. A sensory tract is part of the sensation process. It carries the neural impulse to the sensory projection area. The skin senses and proprioception both use the afferent tracts of the spinal nerves, a type of sensory tract, in the sensation process

51. In a signal detection experiment, a subject is paid 10 cents for every hit, and loses 25 cents for every false alarm. These conditions will likely cause her to:

- A. increase her sensitivity to the signal.
- B. decrease her sensitivity to the signal.
- C. increase the likelihood of a hit.
- D. increase the likelihood of a miss. \*\*

**30%, .47.** Lecture 13. In this experiment, there is a high penalty for false alarms and a low payoff. This would lead the observer to be very conservative, leading to fewer hits and fewer false alarms. The decreased likelihood of a hit and false alarm directly implies there will be an increase in the likelihood of a miss or correct rejection.

52. Superposition is a \_\_\_\_\_ cue to depth or distance.

- A. binocular, ocular
- B. monocular, ocular
- C. binocular, optical
- D. monocular, optical. \*\*

**38%, .20.** Lecture 14. Superposition is when one object (object A) cuts off an observer's view of another object (object B), demonstrating that object A is closer than object B. Superposition is monocular, in that it depends only on a single eye (as opposed to binocular, which uses both), and optical, in that the distance information is provided by the light falling on the retina (as opposed to ocular, which uses the muscles in the eyes).

53. Eyewitness identification from lineups most closely resembles which type of memory test?

- A. recognition. \*\*
- B. cued recall
- C. relearning
- D. implicit

**81%, .06.** Chapter 7. Recognition is a form of testing memory in which someone chooses the correct item among several options. Thus, since a witness is choosing a suspect out of a several options in eyewitness identification, he or she would need to use recognition memory.



54. Which of these is a major cause of forgetting?

- A. consolidation
- B. distinctiveness
- C. interference \*\*
- D. repression

**83%, .09.** Chapter 7. Interference is a major cause of forgetting. For example, you may constantly forget your new cell phone because of retroactive interference from your old cell number.

55. A familiar mnemonic device is the "Method of Loci", in which a speaker "places" each of the points she wants to make in a familiar location, so she can mentally "walk through" the scene and be reminded of the points in their proper sequence. This mnemonic device illustrates the \_\_\_\_\_ principle of memory.

- A. elaboration
- B. organization
- C. schematic processing
- D. all of the above \*\*

**49%, -.15.** Lecture 18. The encoding, storage, and retrieval phases of memory processing all interact. The Method of Loci, specifically, provides both a background for elaboration (i.e. connecting individual items to pre-existing knowledge) and organization (i.e. connecting individual items to each other at the time of encoding, and a framework to guide retrieval (in this case, semantic processing). In this way, encoding processes set the stage for effective retrieval processes

56. Brian Williams, the anchor for NBC News, famously told a story about his helicopter being fired upon during the Iraq War; later, it turned out that it was another helicopter in their convoy which had been hit. This illustrates the \_\_\_\_\_ principle of memory.

- A. time-dependency
- B. interference
- C. encoding specificity
- D. reconstruction \*\*

**81%, .32.** Lecture 20. According to the reconstruction principle, every memory is a blend of information recovered from memory traces and knowledge, expectations, and beliefs derived from other sources. This illustrates that remembering is not simply a matter of retrieving encoded information (verbatim) from storage. Memories are not merely reproduction of the past; they are beliefs about the past---that may not be entirely accurate. Thus, reconstructive processes, as with the case of Brian Williams, may lead us to remember event differently from that way they happened

57. When people make decisions in moral dilemmas, they often answer quickly and emotionally. In terms of cognitive psychology, their response is an example of what?

- A. System 1 thinking \*\*
- B. System 2 thinking
- C. applying an algorithm
- D. the framing effect

**64%, .34.** Chapter 8. We use system 1 thinking for quick, automatic processes and for questions that we think are easy. Thus, we are using this type of thinking when answering moral dilemma quickly and emotionally. System 2 thinking is used for mathematical calculations, evaluating evidence, and problems that

require attention. When applying an algorithm, we are applying an explicit procedure for calculating an answer and framing effect refers to the tendency to answer a question differently when it is worded differently.

58. What is a major difference between expert and novice chess players?

- A. Experts use their frontal lobes more than novices do when playing chess.
- B. Experts rely mostly on System 1 thinking.
- C. Experts have greater overall intelligence.
- D. Experts recognize and remember familiar patterns better. \*\*

**96%, .16.** Chapter 8. Expert chess players will only show better memory than others if the pieces are arranged in a familiar pattern. If the pieces are arranged randomly, experts and novices do the same at recalling the positions. This suggests that experts do not necessarily have a superior memory. They are just more skilled at learning to recognize and remember common patterns in their area of expertise.

59. According to the \_\_\_\_\_ view of categorization, a tomato is a fruit.

- A. classical \*\*
- B. prototype
- C. exemplar
- D. theory (knowledge-based)

**28%, -.14; a bad item.** Lecture 21. According to the prototype view of categorization, categories are best defined by familiar or typical examples. An item in a given category possesses **many** features that are characteristic of category members. This permits the boundaries between categories to be somewhat blurred. For example, in the case of the tomato, some people would classify it as a fruit because it shares many characteristics with other fruits—e.g. it has seeds and comes from a flower (even though it does not share all characteristics with other fruits—e.g. it is not very sweet, and it is typically eaten with other vegetables).

60. When your date doesn't get you home in time for your curfew, you protest that "My parents are going to ground me for life!" but in fact they don't do this. This error in judgment probably reflects the use of the \_\_\_\_\_ heuristic.

- A. representativeness
- B. availability
- C. simulation \*\*
- D. anchoring and adjustment

**58%, .03.** Lecture 22. *Representativeness* heuristics permits judgments to be based on the degree to which an event resembles the population of events from which it has been drawn. However, grounding children for **LIFE** is not what the average parent does, so this rules out Choice A. *Availability* heuristics permit judgment to be based on the ease with which relevant examples can be brought to mind. However, I doubt you can take of relevant examples in which parents have grounded their child for life—ruling out Choice B.

In *anchoring and adjustment* heuristics, initial estimates are taken as reasonable approximations to the final result of some calculation. Being grounded for life does not seem like a reasonable approximation of what is going to happen. Being grounded for a week seems more reasonable—ruling out Choice D. *Simulation* heuristic bases judgments on the ease with which plausible scenarios can be constructed. Though highly unlikely, being grounded for life is an easy judgment that comes to mind. Making choice C the best answer.

61. In contrast to expected utility theory, Kahneman and Tversky's Prospect Theory assumes that people:

- A. are risk averse.
- B. take risks in the context of gains, but prefer certainty in the context of losses.
- C. prefer certainty in the context of gains, but take risks in the context of losses . \*\*
- D. overweight very high and very low risks.

**36%, .35.** Lecture 23. Kahnman and Tversky's *Prospect theory* proposes as an alternative to rational choice by assuming that decisions are affected by the way that choices are framed. In particular, it takes into account the psychology of the individual decision-maker. In this way, it seeks to explain a number of phenomena of decision making that are anomalous from the point of view of expected value theory and expected utility theory. It does not assume that people are always risk adverse (ruling out Choice A). Instead, it suggested that people prefer sure gains when their attention is focused on gains, but they prefer to take a risk when their attention is focused on loss.

62. The language errors of young children, such as "the womans comed and goed", imply which conclusion?

- A. Language development is closely tied to maturation of other cognitive abilities.
- B. Most early speech is direct repetition of what children hear adults say.
- C. Even at an early age, children are learning to use the grammar of the language. \*\*
- D. Language learning takes place most easily during a sensitive period early in life.

**60%, .49.** Chapter 8. Young children tend to overgeneralize certain grammatical rules. For example, they may say that "the womans comed and goed" instead of "the women come and go". This suggests that children are not merely repeating with they hear and are attempting to use grammar in language.

63. Scores on different kinds of intelligence tests all correlate positively with one another. That observation supports which theoretical idea?

- A. the Flynn effect
- B. Spearman's *g* factor \*\*
- C. stereotype threat
- D. Piaget's stages of intellectual development

**85%, .44.** Chapter 9. When measuring how well people performed on various mental tasks, Spearman found that performance on any one of those tasks correlated positively with the others. This led him to conclude that people need a general ability to perform mental tasks. This general ability is called Spearman's *g* factor.

64. Which of the following tends to increase throughout life, as long as people remain healthy?

- A. fluid intelligence
- B. crystallized intelligence \*\*
- C. extraversion
- D. openness to experience

**58%, .22.** Chapter 9. Crystallized intelligence consists of acquired skills and knowledge and the ability to apply that knowledge in specific situations (i.e. job skills acquired while working). Fluid intelligence (the power of reasoning and using information) peaks before age 20 (ruling out Choice A) while crystallized intelligence increases throughout a person's life

65. Prof Nojoy has devised a new IQ test. Research shows that his new test predicts academic achievement, even though subjects' scores varied widely when they were retested after two weeks. Based on this information, we can conclude that the new test:

- A. has reliability but lacks validity.
- B. has validity but lacks reliability. \*\*
- C. has reliability but lacks utility.
- D. has validity but lacks utility.

**77%, .28.** Lecture 24. Validity refers to sense that the test accurately measures the trait it is supposed to measure. In this case, Prof Nojoy's test appears to accurately predict academic achievement which suggests that it is measuring IQ. However, a test also needs to have reliability (which refers to the degree of precision in measurement). In this case, since the subjects scores vary widely when they are retested after two weeks....the test lacks test-retest reliability (a form of reliability in which there is agreement between measurements taken on two different occasions).

66. Studies of color-matching in the Dani, a tribe whose language has just two words for color, indicate that language:

- A. shapes perception as well as thought.
- B. shapes how we talk about the colors we see. \*\*
- C. language shapes the structure of even biologically based categories.
- D. all of the above.

**19%, .33.** Lecture 25. The Dani, a tribe in New Guinea whose language has only two color terms. When asked to **name** color patches, the Dani performed differently from English-speaking college students. But when asked to **match** color patches from memory, the Dani performed the same way the English speakers did, yielding highly similar "color spaces". This demonstrates that language shapes how we talk about the colors we see, (even though the Dani perceived and remembered colors the same way that English speakers did as indicated in the 2<sup>nd</sup> part of the study—ruling out Choice A).

67. According to the James-Lange theory of emotions,

- A. the feeling of emotion comes before the cognition.
- B. the body's response comes before the cognition.
- C. the feeling of the emotion comes before the body's response.
- D. the body's response comes before the feeling of emotion. \*\*

**62%, .25.** Chapter 12. According to the James-Lange theory, your interpretation of the stimulus evokes autonomic changes and muscle actions in your body. Your perception of these bodily changes provides the feeling aspect of emotion. Thus, he proposes that the body's response comes before the feeling of emotion.

68. If we compare people from a variety of cultures, we find little or no difference in what?

- A. frequencies of various sexual behaviors
- B. prevalence of various psychological disorders
- C. the meaning of the eyebrow-raising expression \*\*
- D. reported levels of subjective well-being

**74%, .36.** Chapter 12. In general, emotional expressions are not arbitrary. When photographing people in various culture, Eibl-Eibesfeldt found that people throughout the world expressed a friendly greeting by briefly raising their eyebrow. This expression has the same meaning in all cultures.

69. If you are setting a goal, which of the following is the least effective?

- A. a very high but realistic goal
- B. "I will do my best." \*\*
- C. a goal that you announce publicly
- D. a goal for which you receive frequent feedback

**74%, .27.** Chapter 11. Research suggests that "doing your best" is the same as NOT have a goal at all. So, it would be the least effective. It sounds good, but you can never "be behind" on achieving it, so it doesn't motivate you. The most effect goals are specific, difficult, ad realistic (Choice A is the most effective).

70. The development of the external genitals during early development depends on

- A. the amount of testosterone and other "male" hormones. \*\*
- B. the amount of estradiol and other "female" hormones.
- C. the ratio of testosterone to estradiol.
- D. the chromosomes only, not the hormones.

**40%, .64.** Chapter 11. In humans and other mammals, high testosterone levels produce a male external anatomy, and low testosterone levels produce a female external anatomy. Estradiol plays a role in the development of female **internal** anatomy (ruling out choice B)

71. According to cognitive theories of emotion:

- A. emotional state is determined by the context in which physiological arousal occurs. \*\*
- B. cognition shapes the experience of pleasant, but not unpleasant, emotion.
- C. primary emotions are governed by innate neural programs.
- D. positive and negative moods have different physiological substrates.

**60%, .25.** Lecture 26. According to the cognitive theories of emotions, emotional states are not simply patterns of physiological activity...they involve some cognitive appraisal of the environment. That is, they are determined by the context in which the physiological arousal occurred.

72. Intrinsic motivation is undermined by:

- A. rewards of all types.
- B. rewards perceived as controlling, but not rewards perceived as informative. \*\*
- C. rewards perceived as informative, but not those perceived as controlling.
- D. punishments of all types.

**64%, .46.** Lecture 27. Intrinsic motivation can be undermined by a number of situational factors. In particular, the type of reward can influence a person's intrinsic motivation. Rewards that are perceived as controlling (i.e. they are incentives intended to get a person to engage in the task at all or to perform at a particular standard, regardless of what they really want) tend to undermine intrinsic motivation...while rewards perceived as informative (i.e. they communicate to the person (and others) how well he or she has done) tend not to.

73. The representativeness heuristic most closely resembles which social psychological phenomenon?

- A. conformity
- B. groupthink
- C. stereotypes \*\*
- D. self-serving bias

**81%, .28.** Chapter 13. Representativeness heuristic is the assumption that an item resembles members of a category is probably also in that category. This heuristic helps us makes judgments of similarity and judgments of category membership quickly. However, when people apply this heuristic they tend to overlook base rate information (i.e. how common a category is) which can lead to them to make judgments consistent with stereotypes.

74. According to some psychologists, one symptom of schizophrenia is ambivalence--that is, holding contradictory beliefs without distress. If so, then which of these should have less than average influence on people with schizophrenia?

- A. binocular rivalry
- B. the representativeness heuristic
- C. cognitive dissonance \*\*
- D. optical illusions

**58%, .53.** Chapter 13. Cognitive dissonance is the state of unpleasant tension that people experience when they hold contradictory beliefs or when their behavior contradicts their stated beliefs. Thus, if schizophrenic patients can experience contradictory beliefs without distress, they will be less likely to experience cognitive dissonance.

75. Which group emphasizes unconditional positive regard?

- A. behaviorists
- B. psychoanalysts
- C. cognitive psychologists
- D. humanistic psychologists \*\*

**89%, .39.** Chapter 14. Humanistic psychologists view people as essentially good and strive to help them achieve their potential. In particular, Carl Rogers tried to help people overcome their distress by improving their self-concept or by revising their ideal self. Furthermore, he maintained that people can promote human welfare by relating to one another with unconditional positive regard (i.e. that is by having complete, unqualified acceptance of the person as he/she is)

76. If a personality test produces consistent, repeatable scores then it has high \_\_\_\_\_ and if its scores predict important aspects of behavior then it has high \_\_\_\_\_.

- A. validity... utility
- B. reliability... validity \*\*
- C. utility... reliability
- D. validity... reliability

**72%, .41.** Chapter 14. Validity refers to sense that the test accurately measures the trait it is supposed to measure. In this case, the personality test appears to accurately predict personality since its scores predict important aspects of behavior—so it is high in validity. Reliability refers to the degree of precision in measurement. In this case, since the test produces consistent, repeatable scores, it is also high in reliability (particularly test-retest reliability, a form of reliability in which there is agreement between measurements taken on two different occasions).

77. The personality trait of “agreeableness” has a number of different “facets”, including trust, straight-forwardness, altruism, compliance, and modesty. Subscales measuring each of these aspects correlate highly with each other, and poorly with measures of other “Big Five” traits, such as conscientiousness or openness. This illustrates the \_\_\_\_\_ of behavior.

- A. stability
- B. consistency
- C. coherence \*\*
- D. predictability

**40%, .30.** Lecture 29. Since trust, straight-forwardness, altruism, compliance and modest correlate highly with one other and poorly with measure of other “big five traits” they are likely different facets of the higher-order trait agreeableness. This is one way that coherence can be expressed in personality. In particular, it reflects coherence among semantically different traits.

78. When two individuals play the “prisoner’s dilemma” game on many occasions, over time, they often start out by competing with each other; but eventually, they usually end up cooperating with each other. This illustrates that people can affect their environments by means of:

- A. evocation.
- B. selection.
- C. behavioral manipulation. \*\*
- D. cognitive transformation.

**64%, .01.** Lecture 31. In this case of the prison’s dilemma, the cooperator, by using cooperative behavior, creates an environment that elicits cooperative behavior from competitor. This demonstrates behavioral manipulation because behavioral activity is used to change the objective environment. *Note: This question contained a misprint in Option C, which was corrected in class. Students who took the exam off-campus did not get this correction; for those students only, this item was scored correct for all responses.*

79. Which of the following can be demonstrated in the youngest, least experienced infants?

- A. ability to recognize their mother's voice \*\*
- B. the concept of conservation
- C. verbal memory
- D. the concept of object permanence

**92, .15.** Chapter 5. Studies have shown that babies younger than 3 days old will suck on a nipple more frequently to turn on a recording of their mother’s voice than they will for a recording of another woman’s voice, demonstrating that infants learn the sound of their mother’s voice even prior to birth.

80. To demonstrate “theory of mind”, what must a child demonstrate that he/she knows?

- A. that objects continue to exist even when the child isn’t looking at them
- B. that he/she can gain greater rewards by following instructions
- C. that some people know something that other people don’t know \*\*
- D. that an object continues to have the same mass and volume after changing shape

**79%, .64.** Chapter 5. Theory of mind is the understanding that each person has a mind and that each person knows some things that others don’t know. This can be demonstrated by telling a child about a story in which Max sees his mother putting a chocolate into a blue cupboard, but later she moves it to a green one



without his knowledge. Children with theory of mind will know Max still thinks it's in the blue cupboard, but children without it will think Max now knows it's in the green cupboard.

81. For the most part, individual differences in personality and attitudes are mostly shaped by:

- A. heredity.
- B. the shared environment.
- C. the nonshared environment.
- D. the shared and nonshared environment acting together. \*\*

**15%, -.25; a bad item.** Lecture 33. In a study on heritability by Tinca Polderman, Danielle Posthuma, and associates, published in *Nature Genetics* in 2015, researchers compiled the largest meta-analysis on heritability thus far. They found that, across all domains, average heritability is 49%, the contribution of the shared environment is 17% and rest is due to non-shared environment, therefore suggesting that both the shared and non-shared environment mostly shape individual differences. In general, genetic factors account for less than 50% of population variance, environmental factors for more than 50%; and of the environmental factors, the nonshared environment is more important than the shared environment.

82. The “theory theory” (TT) of cognitive development differs from Piaget’s theory, in that:

- A. Piaget holds that the child is like a naive scientist.
- B. Piaget holds children progress from novices to experts in only one domain at a time.
- C. TT holds that very young children lack the capacity to retain what they have learned.
- D. TT holds that cognitive development is a continuous process. \*\*

**43%, .36.** Lecture 36. Piaget and TT theories overlap in that they both see the child operating as a naïve scientist. In Piaget’s theory, however, children don’t reach this scientific reasoning phase until the formal operations stage, at about 12. However, in TT theory, cognitive development is seen as a continuous process, not marked by stages.

83. It is possible to present a faint stimulus that an observer detects consciously on some trials and not on others. How is the brain response special on trials with consciousness?

- A. The response activates delta waves on the EEG.
- B. The response spreads more widely in the brain. \*\*
- C. The brain’s response activates hormone release from the pituitary gland.
- D. The response is limited to the motor cortex.

**70%, .37.** Chapter 10. In visual trials with a word flashing across the screen, the visual cortex is activated regardless of the observer consciously seeing the word. In the conscious trials, the activation spreads widely in the brain from the visual cortex to other areas including the prefrontal cortex and posterior regions.

84. A new species of animal is discovered. Its retina consists almost entirely of rods (no cones). It sleeps about 16 hours a day. What is probably true of its behavior?

- A. It is a predator and it is active mostly during the day.
- B. It is a prey species and it is active mostly during the day.
- C. It is a predator and it is active mostly at night. \*\*
- D. It is a prey species and it is active mostly at night.

**75%, .18.** Chapter 10. Animals that sleep for long hours are typically predators. They can afford long hours of sleep because they are not in danger of being attacked during sleep and they receive all their



nutrition from quick, energy-rich meals. Rods are vision detectors adapted for vision at night. Together, these likely describe a predator that is active at night.

85. Priming gives evidence of implicit perception when:

- A. the subject was aware of the prime when it was presented.
- B. the prime was presented subliminally. \*\*
- C. the prime triggers an unconscious emotion.
- D. the subject acquires an artificial grammar.

**43%, .26.** Lecture 37. Priming gives evidence of implicit perception when the prime is presented subliminally, or without the conscious knowledge of the subject. For instance, in a light perception task, subjects perform better than chance at distinguishing different levels of light that are not consciously visible. In this situation, the subjects are not consciously aware of the prime, yet they are able to implicitly perceive the changes.

86. Symptoms of a panic attack (in people with panic disorder) indicate a high level of activity by the

- A. parasympathetic nervous system.
- B. parathyroid gland.
- C. thyroid gland.
- D. sympathetic nervous system. \*\*

**79%, .24.** Chapter 15. Panic disorder is linked to having strong autonomic responses, such as rapid heart rate and hyperventilation. These are part of the sympathetic nervous system, which prepares the body for flight-or-fight activity.

87. Tricyclic drugs and SSRIs block reuptake of serotonin and dopamine. Except for speed of effect and degree of effect, their mechanism resembles that of which of these drugs?

- A. marijuana
- B. heroin
- C. alcohol
- D. cocaine \*\*

**47%, .31.** Chapter 15. Tricyclic drugs prevent the axon from reabsorbing dopamine, norepinephrine, and serotonin, and SSRIs block the reuptake of serotonin. Cocaine blocks the protein that the presynaptic neuron uses to reabsorb dopamine or serotonin. Therefore, the mechanisms of the three are closely related.

88. A truly scientific diagnostic system for mental illness would focus on:

- A. continuous dimensions instead of discrete categories.
- B. fuzzy sets instead of proper sets.
- C. laboratory findings of psychological deficits. \*\*
- D. brain-imaging studies of cortical abnormalities.

**38%, .27.** Lecture 38. The scientific medical model of medical illness is the model geared only toward the acquisition of scientific knowledge about the nature of a disease. In this model, the investigator is interested in using controlled experiments on voluntary subjects to monitor and/or even try to inflict mental illnesses for the purpose of understanding the disease. Laboratory models test proposals concerning the origins, treatment, and prevention of mental illness.

89. The combination of drug treatment and psychotherapy is especially promising because:

- A. two therapies are better than one.
- B. drug treatments enable the patient to focus on developing coping skills. \*\*
- C. psychotherapy is effective, but patients forget what they learned as soon as treatment stops.
- D. psychotherapy promotes the patient's adjustment while the drugs are taking effect.

**11%, .02; a bad item.** Lecture 41. The class split evenly between B and D, and neither are bad answers, though the phrasing of the options could have been better (sorry). Drug treatment and psychotherapy have both been shown to be effective in treating mental illnesses, but many studies have also shown that a combination of the two can be more effective. One of the reasons for this is that while the drug treatment can more efficiently reduce symptoms, psychotherapy builds long lasting coping skills. Together, drug treatment reduces the symptomology, allowing the patient to focus on developing these skills.

90. Minuchin's "open systems model" for eating disorders emphasizes:

- A. the role of childhood trauma.
- B. the role of family organization. \*\*
- C. altering homeostatic brain mechanisms.
- D. systematic desensitization to cues for eating.

**49%, .54.** Lecture 42. The open systems model broadens psychopathology and psychotherapy to focus not just on the sick individual, but the sick individual within the context of the family. It postulates that the way the family is organized can trigger the development and maintenance of the symptoms and that these symptoms can maintain the same family organization, therefore therapy must be directed toward changing the family processes as well.

91. The prospects of adult human neurogenesis are greatest in:

- A. peripheral nervous system tissue. \*\*
- B. the hippocampus.
- C. neocortex.
- D. prefrontal cortex.

**34%, .11; a bad item.** Lecture 5. Neurogenesis is the recovery of brain function due to growth of new neural tissue. Recent research has discovered neurogenesis in both the hippocampus and the neocortex in certain animals but definitive neurogenesis in the brain are still controversial, as some studies have not replicated. There is, however, a great deal of evidence for neurogenesis in the peripheral nervous system and therefore the likelihood of it is highest in that system.

92. In rats, the unconditioned response to electrical shock to the foot is heart-rate acceleration, a physiological index of fear. In an experiment, a tone CS is presented simultaneously with a footshock US. The experimenters will observe that the animals will:

- A. show an initial conditioned fear response followed by extinction.
- B. show an enhanced generalization gradient when a new CS is introduced.
- C. show no conditioned fear response to the CS. \*\*
- D. show an exaggerated fear response to the US.

**32%, .42.** Lecture 9. This is an example of simultaneous conditioning, in which the CS and the US are

presented at the same time. In simultaneous conditioning, conditioning does not occur because the organism must establish the connection that the CS is a predictor of the US (which causes the UR). If they are presented simultaneously, this cause and effect connection is not developed.

93. Many visual illusions reflect a misapplication of:

- A. unconscious inferences. \*\*
- B. ecological validity.
- C. Gestalt principles of perceptual organization.
- D. transduction of a distal stimulus into a proximal stimulus.

**38%, -.03; a bad item.** Lecture 16. Unconscious inferences involve the perceptual system performing calculations that we are not necessarily aware of. Many visual illusions involve a misapplication of them. For instance, in the Muller-Lyer illusion, false perceptions are created when the viewer sees lines equidistant from them, but the visual system compensates for depth cues, and by virtue of the size-distance rule the viewer believes the upper line is longer than the lower line.

94. H.M. suffered an amnesia due to damage to his medial temporal lobe. In a test of the serial-position effect, he would show:

- A. a normal recency effect.
- B. a diminished recency effect.
- C. a normal primacy effect.
- D. a diminished primacy effect. \*\*

**47%, .24.** Lecture 17. Damage to areas in the medial temporal lobe cause anterograde amnesia, an inability to remember experiences that occur after the onset of the brain damage. This is typically due to the brain's inability to convert primary short-term memories into secondary long-term memories. The serial-position effect exercise presents a list of items that the subject must recall. The primacy effect is the enhanced memorability of items appearing early in the list, and the recency effect is the enhanced memorability of items appearing late in the list. Research suggests that the primacy effect involves retrieval from secondary memory, while the recency effect involves retrieval from primary memory. In this case, with secondary memory damaged, H.M. would show a diminished primacy effect.

95. Mischel's "personality coefficient" is:

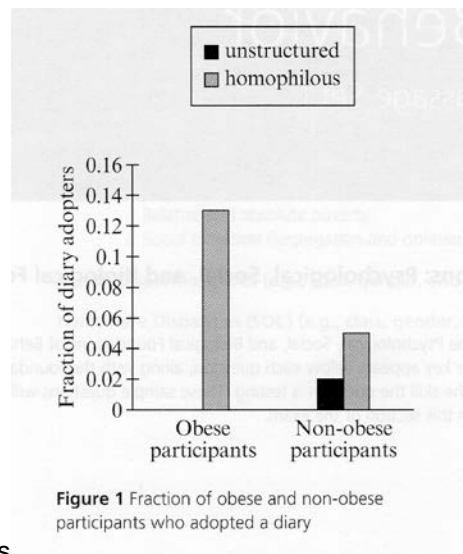
- A. the maximum correlation between a trait measurement and specific behavior. \*\*
- B. the relationship between a personality test's face validity and its construct validity.
- C. a statistic reflecting the correction of validity for test unreliability.
- D. a measurement of the degree to which specific behaviors converge on primary traits.

**60%, .06.** Lecture 30. The personality coefficient is the ceiling, or upper limit, on the extent to which an individual's behavior in some specific situation could be predicted from knowledge of his or her generalized personality traits. The coefficient is  $r=.30$ , meaning only 9% of the variance in actual behavior can be accounted for by the personality trait in question.

**Read the following passage, examine the accompanying graphic, and then answer questions 96-100.**

“Homophily” is the tendency of social acquaintances to be similar to each other, and it can have widespread effects on behavior. A recent study examined how similarity in social networks affects health-related behavior, such as having a healthy diet. In a study by Centola et al. (2011), subjects were recruited from an online fitness program and divided into two groups: (1) a homophilous social network, in which subjects were matched with “health buddies” according to age, gender, and body mass index (BMI); and (2) an unstructured social network, in which subjects were matched with their “health buddies” at random. Each subject received a notification that their health buddy had started using an Internet-based diet diary, which could be used to share diet information among buddies. The subjects then had to decide whether to adopt an Internet-based diet diary themselves.

Figure 1 shows the results of the study.



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In follow-up experiments, the researchers pursued several questions regarding health-related behaviors and attitudes.

- (1) First, they considered factors that might increase the likelihood that subjects would adopt the diet diary.
- (2) Second, they examined how subjects viewed their own BMI and that of other individuals. They hypothesized that a self-serving bias could account for these views.
- (3) Third, they explored the relationship between cognitive dissonance and health-related behavior.

To answer these questions, the researchers gave the subjects a survey which assessed the extent to which the subjects viewed exercise and a good diet as important.

96. Which conclusion is best supported by the findings in Figure 1?

- A. Non-obese subjects experience more cognitive dissonance than obese subjects.
- B. Subjects experience more cognitive dissonance in homophilous groups.
- C. Non-obese subjects conform more than obese subjects.
- D. Subjects conform more in homophilous groups. \*\*

**75%, .30.** According to Figure 1, a higher fraction of homophilous subjects than unstructured subjects became diary adopters in both non-obese and obese groups (i.e. there was a main effect for homophily) suggesting that subjects conformed more in homophilous groups. (There also appears to be an interaction between homophily and obesity, since the effects of homophily appears to differ depending on the level of obesity).

97. How could the researchers use the foot-in-the-door technique to increase the subjects' likelihood of adopting a diet diary?

- A. Encourage the subjects to sign a petition in support of diet diaries. \*\*
- B. Have the subjects personally interact with the health buddy who adopted the diet diary.
- C. Tell the subjects that the health buddy who adopts the diet diary is a trustworthy health expert.
- D. Tell the subjects that by agreeing to be in the study, they have agreed to cooperate with the researchers.

**53%, .44.** The foot-in-the-door technique is a method of eliciting compliance by asking for a modest request and then, when that is accepted, you follow that with a larger request. In the case of choice A, you are first asked a modest request (signing a petition) and then larger request (having them adopt the diary themselves).

98. Which statement is *not* compatible with the hypothesis that the self-serving bias can account for subjects' explanations of their body weights?

- A. Obese subjects view their unhealthy weight as a result of having too many fast-food restaurants near home.
- B. Non-obese subjects view their healthy weight as a result of having strong willpower.
- C. Obese subjects view their unhealthy weight as a result of not having time to exercise regularly.
- D. Non-obese subjects view their healthy weight as a result of not having any fast-food restaurants near their home. \*\*

**58%, .25.** Self-serving biases are attributions that we adopt to maximize credit for success and minimize blame for failure...thus, we tend to attribute successful behavior to internal characteristics and unsuccessful behavior to external causes. Choice D is not a self-serving bias because the subjects are attributing successful behavioral (i.e. healthy weight) to an external cause. Choices A and C are examples of self-serving bias because the subjects are attributing unsuccessful behavior to external causes. Choice B is also a self-serving bias because the subjects are attributing successful behavior to an internal cause.

99. In a follow-up, all the subjects in the study are given information regarding the benefits of a healthy diet. According to the cognitive dissonance theory, this study is likely to find that:

- A. Obese subjects will change their unhealthy eating behaviors.
- B. Non-obese subjects will change their unhealthy eating behaviors.
- C. Obese subjects will question the validity of the information provided. \*\*
- D. Non-obese subjects will overemphasize the importance of the information provided.

**38%, .20; a bad item.** Recall that cognitive dissonance is the state of unpleasant tension that people

experience when they hold contradictory beliefs or when their behavior contradicts their stated beliefs. Thus, obese subjects may question the validity of the information provided to relieve unpleasant tension between their behaviors (unhealthy eating) and contradict beliefs stemming from the new information (that healthy eating is beneficial).

100. If the study were modified to investigate the effect of homophily on the changes in subjects' exercise patterns as well as their likelihood of adopting an Internet-based diary, how would this change the design of the study?

- A. A new independent variable would be added.
- B. A new dependent variable would be added. \*\*
- C. Levels of an existing independent variable would increase.
- D. The study would become an experimental rather than a correlational study.

**57%, .37.** The dependent variable can be thought of as the outcome variable. It is the variable that the experimenter measures to determine the effects of the independent variable. In this case, homophily is the independent variable and we are measuring exercise patterns and adoption of the diary (both the dependent variables as possible outcomes of that independent variable).