

University of California, Berkeley
Department of Psychology

Psychology W1

Summer 2016

Final Examination KEY

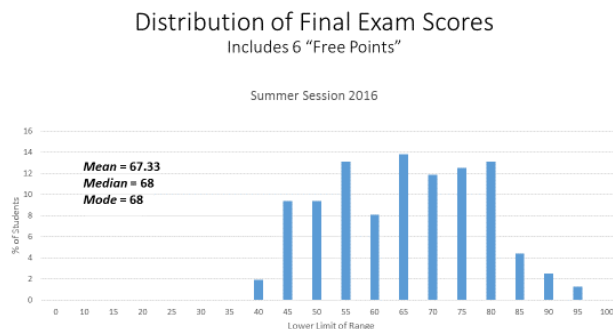
Final Feedback

What follows is the final feedback on Midterm Examination 2 – the correct answers and brief explanations of them, as well as the results of the item analysis.

On initial scoring, the mean score on the exam was 52.59, $SD = 13.40$ (53%). The reliability of the exam, measured by Cronbach’s “coefficient alpha”, was .89, which is excellent. Statistical analysis, following the procedures described in the Exam Information page of the Lecture Supplements revealed a number of “bad” items: #7, 10, 14, 17, 30, 40, 46, 47, 52, 64, 65, 76, 88, and 97.

These items were rescored correct for all responses. The average score on the rescored exam rose to 61.33 ($SD = 13.25$), or 61%. This was lower than the usual range (65-70%) for my exams, so in a new column of the bCourses gradebook I added 6 points to everyone’s score (in a special column in the bCourses gradebook), effectively bringing the mean score up to 67.33 – right in the middle of my usual range.

Exam scores posted to the bCourses gradebook, reflect the rescoring (remember, the six “free” points are recorded separately in the gradebook).



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The figure shows the distribution of scores on the Final Exam.

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.

Name: _____ Student ID# _____

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.

**Special Instructions for Students Taking the Proctored Off-Campus Exam
Or the Proctored Exam for the Disabled Students Program**

Students taking the exam with a proctor (either off-campus or through the Disabled Students Program) should return their Final Exam answers through the bCourses website.

- Log on to bCourses and click on "Quizzes" in the navigation bar on the left.
- Then click on the link to the "Final Examination Answer Sheet".
- You will see a list of 100 questions and response options A, B, C, and D. There is no text for either questions or answers – just numbers and letters. The text is only on the hard-copy of the exam given you by your proctor.
- Simply transcribe your answers from the printed answer sheet appended to this exam. For each question, 1-100, click the radio button that corresponds to your answer.
- When you have completed entering your answers, click on "Submit Quiz" to submit the Final Exam, just as you did for the Midterm Exams.

As a backup, your off-campus proctor will scan the hard copy of your answer sheet and email it to Summer Sessions. In the case of DSP students, we will pick up the hard copy from the DSP office).

Noncumulative Portion

1. One disadvantage of longitudinal designs is that

- A. the groups selected for comparison may differ in more regards than just age.
- B. the results cannot be analyzed statistically.
- C. it is hard to separate differences due to age from differences due to changes in society. **
- D. the results must be inferred from memories reported long afterward.

63.5% of the class got this item correct; item-to-toal $r_{pb} = .27$. Chapter 5. Longitudinal studies follow a single group of individuals as they develop. It can be hard to separate differences that occur in this in this group over time because the differences could occur due to the group aging, or due to the changes in society that have occurred. Sequential designs, which combine longitudinal and cross-sectional designs, look at different groups of different ages and track them over time, which helps to reduce this disadvantage.

2. One advantage of a cross-sectional design for studying age differences is that it

- A. ensures that the people studied at each age have the same abilities.
- B. is not affected by differences among cohorts.
- C. can be completed in a short period of time. **
- D. is automatically double blind.

60.6% correct, $r_{pb} = .47$. Chapter 5. A cross-sectional study compares groups of individuals of different ages at the same time. While the risks of cross-sectional designs include bias due to cohort effects or looking at different kinds of people, an advantage is that they can be completed in a short amount of time as no one is tracked for a long period.

3. In one study, a researcher monitored newborns' responses to the sound sequence "ba-ba-ba-ba-ba..." until their response habituated, and then substituted the sound "pa." What happened to the infants' responses, and what conclusion follows?

- A. Their responses decreased. Conclusion: They interpret the change as threatening.
- B. Their responses stayed the same. Conclusion: They cannot tell the difference.
- C. Their responses increased. Conclusion: They hear a difference between the sounds. **
- D. Their responses increased. Conclusion: They prefer the sound "pa" to "ba."

63.5%, .23. Chapter 5. Infant habituation and dishabituation can be measured by infant sucking. Upon hearing a new sound, sucking will increase, however if that sound is continuously played the infant's sucking will eventually decrease, called habituation. When a change in this stimulus, such as the sound played, increases a previously habituated response (so sucking increases), it produces dishabituation. After habituating an infant to ba-ba-ba..., then playing "pa", the infant will display dishabituation, in that their sucking will increase because they hear a difference between the sounds.

4. A 6-month-old watches a toy car go down a track, behind a curtain, and apparently through a block that should stop it. How does the child react, and what conclusion do psychologists draw?
- A. The child looks away. The child has lost interest.
 - B. The child stares longer than usual. The impossible result surprised the child. **
 - C. The child reaches toward the toy car. The child lacks the concept of conservation.
 - D. The child does not react at all. The child lacks the concept of object permanence.

42.3%, .21. Chapter 5. Though Piaget demonstrated and believed that infants lacked object permanence, studies like this have suggested this may not always be the case. Object permanence is the idea that objects continue to exist even when we do not see or hear them. Piaget's studies have shown that if you cover an object with a barrier, an infant will no longer recognize that it is there. In this study when infants are shown an "impossible event:" seeing a block on a track that is then covered by a curtain, then watching a car pass through it, they actually stare longer at the event, indicating surprise, and potentially some form of object permanence (though the level of object permanence that infants show has differed across studies).

5. Someone in Erikson's age of basic trust vs. mistrust would be in which age group?
- A. adolescent
 - B. preadolescent
 - C. toddler
 - D. infant **

38.5%, .45. Chapter 5. Erik Erikson believed the human development life span had eight stages that represented different tasks to master, and specific social and emotional conflicts. The first stage, basic trust vs. mistrust, occurs in infants less than one-year-old. In this stage, infants in a supportive environment form strong attachments that positively influence future relationships, while an infant in an unsupportive environment will have trouble developing relationships with others later in life.

6. If two people differ in their temperament, what can we expect to find?
- A. They react differently to new situations. **
 - B. They differ in their interests and academic abilities.
 - C. They prefer different types of foods.
 - D. They differ in their self-esteem.

89.4%, .27. Chapter 5. Temperament is the tendency to respond vigorously, nervously, or quietly to new experiences (or situations). Children differ genetically in their temperament and differences are visible at an early age.

7. Adolescents who have explored their future but have not made any decisions are said to have
- A. identity achievement.
 - B. identity foreclosure.
 - C. identity moratorium. **
 - D. identity diffusion.

43.3%, .13. A bad item. Chapter 5. An adolescent's concern with decisions about the future and the quest for self-understanding is called an identity crisis. Within this, identity development has two elements: whether or not one has explored the issues and whether or not one has made any decisions about it. If one has explored their future or issues and has not made a decision about it, it is called an identity moratorium.

8. Which of the following apparently does NOT differ between one culture and another?

- A. the average length of non-romantic hugs **
- B. how likely children are to play mostly with other children their own age
- C. the effectiveness of showing anger, when trying to influence others
- D. how much people value independence and individual achievement

15.4%, .36. Chapter 5. Answers B through D all differ depending on the culture one is from. American children tend to play with others of their own age, while African children tend to play with mixed-age children. Anger also tends to be more effective in American cultures than in Asian cultures. Western cultures also tend to value independence more than Asian cultures. Hugs, however, tend to last for three seconds across cultures.

9. In a twin study of absent-mindedness, the correlation between monozygotic twins is .80, while the correlation for dizygotic twins is .70. From this information alone, we can conclude that:

- A. On average, monozygotic twins are more absent-minded than dizygotic twins.
- B. The genetic contribution to absent-mindedness is relatively strong.
- C. The contribution of the nonshared environment to absent-mindedness is relatively weak. **
- D. Nothing can be concluded without knowing whether the monozygotic twins were raised together or apart.

18.3%, .22. Lecture 33. Genetic variance can be measured by $G = 2 * (MZ - DZ)$, so in this case is equal to $2 * -.10 = -.20$. Further, Environmental variance, E, is equal to variance due to the shared environment plus variance due to the non-shared environment. Non-shared environment is equal to $1 - MZ$, so it is equal to .20 in this case. Shared environment is equal to $1 - G - E(\text{non-shared})$, so $1 - (-.20) - (.20) = 1.0$. The contribution of the shared environment is 1.0, and the contribution of the non-shared environment is .20, so we can conclude that the contribution of the non-shared environment to absent mindedness is relatively weak.

10. Fussy children tend to elicit "upper-limit" control behavior from their parents. This is an example of a:

- A. child-driven reactive effect.
- B. relationship-driven effect. **
- C. parent-driven effect.
- D. family context effect.

14.4%, -.03. A bad item. Lecture 34. These are all types of within-family environmental differences. A relationship-driven effect has to do with the "fit" between child and parent in terms of appearance and temperament. In this case, a fussy child is eliciting "upper-limit" control behavior from the parents.

11. Individual differences in masculinity and femininity:

- A. Are most strongly driven by genetically determined prenatal levels of sex hormones.
- B. Are most strongly driven by genetically determined levels of post-natal sex hormones.
- C. Are most strongly influenced by the shared environment.
- D. Are most strongly influenced by the nonshared environment. **

39.4%, .50. Lecture 35. Studies conducted by Gottesman et al (1965, 1966), Dworkin et al. (1976), and Loehlin et al. (2005) have all shown that individual differences in masculinity and femininity are most strongly influenced by the non-shared environment.

12. When we say that cognitive development entails the development of a “theory of mind”, we mean:

- A. metacognition.
- B. understanding that our mental states are representations of the world.
- C. appreciating that others’ perceptions and beliefs may differ from our own.
- D. all of the above. **

68.3%, -.07. Lecture 36. Theory of mind is the ability to impute mental states to ourselves and other people. It involves having an understanding of knowledge of our own minds, in that our mental states are separate from the outside world, that we can control our beliefs, feelings, and desires, and that we are able to introspect. It also requires an understanding of knowledge of other minds, in that others’ mental states may differ from ours, others have different experiences, and that we are capable of inferring others’ beliefs, feelings, and desires. Therefore, all of the above are correct.

13. What evidence suggested that some people in a vegetative state are conscious?

- A. Instructions to imagine something activated the same brain areas as in intact people. **
- B. Body temperature increased and decreased at various times of day.
- C. People with psychic ability said they could read their minds.
- D. The people learned to blink their eyes in a code to spell out words.

75.0%, .24. Chapter 10. A vegetative state is a state marked by limited responsiveness, such as increased heart rate in response to pain. While it can appear that they are unconscious, a study has demonstrated that asking a person in a vegetative state to imagine playing tennis can activate motor areas in the brain, while asking someone to imagine walking through their house can activate areas responsible for spatial navigation.

14. In binocular rivalry, you see one image in the left eye and an incompatible image in the right eye. What do you perceive?

- A. an alternation between one image and the other **
- B. one superimposed on the other
- C. something halfway between one and the other
- D. something entirely different from both

29.8%, .15. A bad item. Chapter 10. Because your brain cannot perceive two images at the same time, when you see different images in each eye, you will see an alternation between one image and the other. Binocular rivalry is sometimes used in fMRIs to assist in measuring brain activity.

15. If you were on a submarine with constant artificial light and no sunlight, what would happen to your sleep-wake cycle?

- A. You would alternate between sleep and wakefulness on a 24-hour cycle. **
- B. Your periods of wakefulness and sleepiness would follow no regular schedule.
- C. You would be constantly wakeful or sleepy, depending on the brightness of light.
- D. You would be alert when other people are alert and sleepy when they are sleepy.

44.2%, .45. Chapter 10. Our circadian rhythm is a rhythm of activity lasting about a day. While the rising and setting of the sun help to set this rhythm, we generate it ourselves. Thus, in an environment with constant artificial light, we would be likely to continue on a sleep/wakefulness rhythm on a 24-hour cycle.

16. What is paradoxical about paradoxical sleep?

- A. The person reports dreams, but there are no rapid eye movements.
- B. The EEG pattern suggests a dream, but the person denies dreaming.
- C. The brain is active, but the muscles are relaxed. **
- D. The brain is inactive, but the muscles are tense.

62.5%, .48. Chapter 10. Paradoxical sleep, also known as REM (rapid eye movement) sleep is a stage of sleep in which the sleeper's eyes move rapidly back and forth under the closed lids. It's also paradoxical because it is light in because the brain and heart rate, temperature, and breathing are active and fluctuate, but it is also deep because the large muscles are relaxed.

17. Night terrors are fairly common in _____ and they occur mostly during _____ sleep.

- A. children... REM
- B. children... non-REM **
- C. old people... REM
- D. old people... non-REM

18.3%, .02. a bad item. Chapter 10. A night terror is a nightmare in which the sleeper awakens screaming, sweating, and with a racing heart rate. Night terrors are most common for children and occur during stage 3 or 4 sleep.

18. According to the activation-synthesis theory, dreaming is

- A. a manifestation of a person's unconscious thought and motives.
- B. your brain's attempt to prevent or decrease brain waves.
- C. a time of memory consolidation and removal.
- D. your brain's effort to make sense of spontaneous sensory activity. **

46.2%, .28. Chapter 10. According to the activation-synthesis theory of dreams, dreams occur because the cortex takes the haphazard activity that occurs during REM sleep plus whatever stimuli strike the sense organs and does its best to make sense of this activity – essentially the brain's effort to make sense of spontaneous sensory activity.

19. When hypnotized people are asked to increase their memory of something, the new memories they report are generally _____ and _____.

- A. accurate... confident
- B. accurate... non-confident
- C. inaccurate... confident **
- D. inaccurate... non-confident

70.2%, .30. Chapter 10. People under hypnosis are highly suggestible. If they are told to remember more information than they remembered prior to being hypnotized, they will often present more information, some of it accurate and much of it inaccurate. The main difference between a hypnotized person and a non-hypnotized person is that the hypnotized person is much more confident about the newly presented information.

20. Automatic processes are “unconscious” in what sense of the word?

- A. They operate outside phenomenal awareness. **
- B. They generate unconscious, but not conscious, percepts, memories, and thoughts.
- C. They are evoked by low-intensity “preconscious” stimuli.
- D. They elicit various defense mechanisms that consume attentional resources.

74.0%, .29. Lecture 37. Automatic processes occur unintentionally, in a reflex-like fashion, in response to particular stimuli, and are typically executed outside awareness, thus making them “unconscious.”

21. One major criticism of DSM for diagnosing psychiatric disorders is that it

- A. draws too few distinctions among different types of disorders.
- B. pertains to only the most severe disorders.
- C. continues to rely on the same diagnoses and descriptions popular in Freud's time.
- D. labels many understandable reactions as if they were mental illnesses. **

55.8%, .34. Chapter 15. The DSM, or Diagnostic and Statistical Manual of Mental Disorders, sets specific criteria for psychological diagnoses. A major criticism is that it labels too many conditions, or reasonable reactions to situations with a mental illness label. For instance, a child who hates school because of bullying gets diagnosed with “school phobia.”

22. A personality disorder is a:

- A. maladaptive, inflexible manner of behaving. **
- B. temporary change in a person's level of anxiety or depression.
- C. anything someone wishes to change about himself or herself.
- D. physical symptom that has no apparent medical cause.

89.4%, .14. Chapter 15. A personality disorder is a maladaptive, inflexible way of dealing with the environment and other people. The term “personality disorder” is an example of the DSM starting to move away from specific labels and use more generalized disorders to categorize abnormal behavior.

23. What is unusual about learned avoidance behaviors?

- A. They are quickly forgotten.
- B. They can be learned by personal experience but not by imitation.
- C. They do not generalize to similar stimuli.
- D. They are highly resistant to extinction. **

64.4%, .41. Chapter 15. Avoidance behaviors are highly resistant to extinction, in that you are still likely to engage in the behavior even when the stimulus is removed or should no longer elicit an avoidance response. For instance, if one is superstitious of Friday the 13th, if nothing bad happens on that day, they believe that being cautious about it was successful, and if something bad does happen, they are confirmed in the belief that it is a dangerous day. Either way, the avoidance behavior, or superstition, is likely to continue.

24. People most frequently develop phobias of objects that

- A. have been dangerous throughout human history. **
- B. have become dangerous only in recent times.
- C. they remember from childhood but do not encounter during adulthood.
- D. are not and never have been dangerous.

56.7%, .51. Chapter 15. A phobia is a fear that interferes with normal living, although the fear itself is not necessarily irrational. People often develop phobias to things that can actually be dangerous: snakes, spiders, lightning, and heights. The irrational part of the phobia is how extreme the fear reaction is.

25. What is the difference between a physical dependence and a psychological dependence?

- A. Using something with a physical dependence causes harm in one's life.
- B. Quitting something with a physical dependence causes withdrawal symptoms. **
- C. Something with a physical dependence releases dopamine.
- D. It is easier to quit something with a physical dependence.

55.8%, .35. Chapter 15. Someone who uses a drug to reduce unpleasant withdrawal symptoms has a physical dependence, while someone who has a strong desire to use a drug that does not have withdrawal symptoms have a psychological dependence.

26. In the treatment of depression, the benefits of drugs usually _____ but the benefits of psychotherapy usually _____.

- A. last longer...cost less money
- B. last longer...emerge sooner
- C. help a larger number of people...cost less money
- D. emerge sooner...last longer **

94.2%, .24. Chapter 15. Taking a drug for depression can be ideal because the benefits tend to emerge soon, and they are also cheaper and less time consuming than therapy. Psychotherapy tends to take longer to show benefits, but they usually last longer.

27. What do antipsychotic drugs do?

- A. They block the reuptake of several neurotransmitters by the presynaptic neuron.
- B. They increase the production and release of inhibitory neurotransmitters.
- C. They increase blood flow to the brain.
- D. They block dopamine synapses. **

31.7%, .28. Chapter 15. Antipsychotic drugs help people with schizophrenia or other psychotic disorders live normal lives by blocking dopamine synapses in the brain. One hypothesis related to this is the dopamine hypothesis or schizophrenia, which is the idea that the underlying cause of schizophrenia is excessive stimulation of certain types of dopamine synapses.

28. What type of therapist concentrates on helping people change their interpretation of events, and helping them abandon unrealistic goals?

- A. cognitive therapist **
- B. psychoanalyst
- C. behavior therapist
- D. pharmacotherapist

70.2%, .42. Chapter 15. There are several different types of psychotherapies— treatment of psychological disorders by methods that include a personal relationship between a trained therapist and a client. Of these therapies, cognitive therapy seeks to improve psychological well-being by changing people's interpretation of events and abandon unrealistic goals.

29. According to your instructor, the “medical model” of psychopathology assumes that:

- A. each syndrome of mental illness is associated with a unique biological marker.
- B. psychologists can treat mental patients only under the supervision of a psychiatrist.
- C. mental illnesses have natural causes that can be uncovered by science. **
- D. psychoses, but not neuroses, qualify as genuine mental illnesses.

54.8%, .38. Lecture 38. The medical model of psychopathology asserts that mental illness has natural causes. They may be biological or psychosocial in nature, but they are natural causes that can be ascertained by empirical science.

30. Working memory in schizophrenia:

- A. is equivalent to controls at all set sizes.
- B. is worse than controls even at small set sizes.
- C. is worse than controls but only at large set sizes. **
- D. prevents patients from updating their mental models of the real world.

26.0%, .00. A bad item. Lecture 39. The Sternberg task requires that individuals memorize a set of items (in varying set sizes), and then to search that set for a particular target. It's a measure of testing working memory. When normally functioning control subjects were compared to schizophrenic subjects on the Sternberg task, schizophrenic subjects performed worse than control subjects only when the set was large.

31. According to the “hopelessness” theory of depression:

- A. unpredictable and unavoidable aversive events function as diatheses.
- B. the individual's “attributional style” interacts with learned helplessness. **
- C. the presence of the 5-HTT gene is a unique diathesis for depression.
- D. child maltreatment is a necessary, but not sufficient, cause of depression.

55.8%, .31. Lecture 40. The hopelessness theory of depression asserts that pessimistic attributional style, or the tendency to make internal, stable and global attributions when it comes to helplessness, interacts with the experience of learned helplessness. A pessimistic attributional style is a risk factor for hopelessness depression.

32. Concerning the effectiveness of psychotherapy:

- A. non-behavioral are more effective than cognitive-behavioral therapies.
- B. humanistic therapy is more effective than psychodynamic therapy.
- C. patients receiving psychodynamic therapy show no more improvement than untreated patients.
- D. the combination of psychotherapy and pharmacotherapy is particularly promising. **

83.7%, .19. Lecture 41. While certain types of psychotherapy and pharmacotherapy have been found to be effective, the combination of the two has the highest positive response rate. This is likely due to drugs offering rapid symptom relief and potentially correcting underlying biological issues, while psychotherapy provides long-term coping skills.

33. The stigma associated with mental illness:

- A. is less severe than the stigma associated with medical illness, such as lung cancer.
- B. represents a shift from the medical to the moral model of psychopathology.
- C. produces an elevation in perceived status of the mentally ill.
- D. causes expectancy confirmation effects that tend to keep the patient "ill". **

67.3%, .50. Lecture 42. Stigmatizing, or negatively viewing those with mental illnesses, can create a self-fulfilling prophecy for those who are mentally ill. A diagnosis of mental illness can create expectations concerning the patient and expectations from others to view the individuals' behavior as characteristic of the mental illness. In turn, the individual's behavior then can be seen as confirming the diagnosis of the mental illness and individuals may see themselves as incurably ill.

34. From a psychological point of view, "culture":

- A. is equivalent to race, ethnicity, and nationality.
- B. includes shared categories for understanding experience. **
- C. is not as important as biology for understanding behavior.
- D. separates humans from all other animals.

77.9%, .09. Lecture 43. Culture is very important to understanding behavior and experiences. For instance, while medical or psychological issues such as depression, cancer, and heart disease, are found across cultures, there are also culture-specific syndromes that are shaped by a sociocultural context. For example, in Southeast Asia and Africa, a mental illness called koro is when a person is obsessed with the idea that his genitalia are shrinking and disappearing. This is culturally specific, and is not common in North America, where the culture differs.

Cumulative Portion

35. The philosophical belief that every behavior has a cause is known as

- A. structuralism.
- B. determinism. **
- C. functionalism.
- D. solipsism.

66.4%, .42. Chapter 1. Determinism refers to the idea that every event has a cause or determinant, that one could observe or measure.

36. Which of the following could be an operational definition of extraversion?

- A. a tendency to enjoy life and enjoy socializing with other people
- B. the opposite of introversion
- C. the way someone feels when relaxed in a large crowd
- D. the number of people someone can recognize by name **

26.0%, .40. Chapter 2. Operational definition is a definition that specifies the operations (or procedures) used to produce or measure something—it's a way to give it a numerical value. Choice D specifies how we are going to measure extraversion (i.e. by counting the number of people someone can recognize by name) and gives it a numerical value.

37. In an experiment on operant conditioning, the rate of pressing a lever or pecking a disk is the

- A. reinforcement.
- B. conditioned stimulus.
- C. independent variable.
- D. dependent variable. **

45.2%, .27. Chapter 2. The dependent variable is the item that an experimenter measures to determine the outcome. In this case, the experimenter is determining the outcome of the experiment by measuring the rate of lever pressing. In contrast, the independent variable is the variable that the experimenter controls or changes directly. (In this case, the experimenter is not controlling the lever pressing directly, she is just measuring it).

38. If you put a pencil into an infant's hand, the infant reflexively grasps it. An evolutionary psychologist offers which of these explanations?

- A. The grasp reflex was useful for our monkey-like ancestors. **
- B. The sensory stimulus activates motor neurons in the spinal cord.
- C. The infant has learned this response by trial and error.
- D. The reflex is an important part of Western culture.

79.8%, .33. Chapter 3. Evolutionary psychologists try to explain behavior in terms of the evolutionary history of the species. Thus, they would argue that the grasp reflex evolved in humans because of our monkey-like ancestors that lived in trees. Their babies were more likely to survive a fall from a tree if they had this reflex.

39. The left and right hemispheres of the brain differ most strongly in how they control what?

- A. hunger and thirst
- B. memory
- C. language **
- D. olfaction

90.4%, .44. Chapter 3. For most people, parts of the left hemisphere control speech. For some left handers, both hemispheres control speech. The right hemisphere rarely controls speech on its own and is more important for other functions, like understanding emotional connotations. Experiments with split-brain patients (who have had their corpus callosum severed) demonstrate the extent of this localization.

40. Feature detectors are important for our vision. A feature detector is a kind of

- A. word.
- B. developmental stage.
- C. conditioned response.
- D. neuron. **

48.1%, .12. A bad item. Chapter 4. Feature detectors are specialized neurons in the visual cortex that respond to the presence of simple features, such as lines and angles.

41. Many optical illusions can be explained in terms of an observer's

- A. ability to move the eyes more easily one direction than another.
- B. tendency to answer quickly without carefully examining the objects.
- C. over- or under-estimating the distance to some objects. **
- D. difference in shape between the left and right eyes.

78.9%, .12. Chapter 4. An optical illusion is a misinterpretation of visual stimuli. An optical illusion can occur when we misjudge distances (i.e. when we over- or under-estimate the distance to some objects.)

42. A child in Piaget's sensorimotor stage would probably be in which of Erikson's stages?

- A. identity vs. identity diffusion
- B. industry vs. inferiority
- C. generativity vs. stagnation
- D. basic trust vs. mistrust **

76.0%, .23. Chapter 5. Piaget's sensorimotor stage occurs in children up to 1.5 to 2 years, in which behavior is mostly motor responses to sensory stimuli. Erikson's infant stage, which occurs in children up to about 1 year old, is the basic trust vs. mistrust stage. In this stage, infants in a supportive environment form strong attachments that positively influence future relationships, while an infant in an unsupportive environment will have trouble developing relationships with others later in life.

43. A child is shown two rows of eight checkers. The child is asked which row has more checkers, when one row is spread out more than the other. The psychologist is measuring which concept?

- A. cognitive dissonance
- B. object permanence
- C. executive functioning
- D. conservation **

59.6%, .60. Chapter 5. Conservation is the idea that children in the preoperational stage fail to understand that objects conserve properties such as number, length, volume, area, and mass after changes in the shape or arrangement of the objects. Because the row with checkers spread out appears larger than the first row, children in the preoperational stage are likely to say the spread out row has more checkers, thus demonstrating a lack of conservation.

44. Some psychologists study thinking by simply asking people to describe their thoughts and the reasons behind them. The psychologists who are most likely to OBJECT to this approach are the

- A. structuralists.
- B. behaviorists. **
- C. humanistic psychologists.
- D. Adlerian psychologists.

39.4%, .23. Chapter 6. Behaviorists describe psychology as the study of behavior (and nothing else). They conclude that questions about the mind and experience are unanswerable (such as the one described above). Instead they focus on observable behaviors.

45. Which of the following is based on classical conditioning?

- A. vicarious punishment as a means of breaking bad habits
- B. behavior modification as a way of treating prisoners
- C. an interpretation of how drug tolerance develops **
- D. common methods of animal training

16.4%, .27. Chapter 6. When drug users inject themselves with morphine or heroin, the drug injection procedure predicts a second stimulus, the drug's entry into the brain. The drug entering the brain triggers a body defense response (e.g. increased heart rate). Whenever one stimulus predicts a second stimulus that produces an automatic response, classical conditioning can occur. In the case of drug tolerance, the drug injection procedure is the conditioned stimulus, the drug entry into the brain is the unconditioned stimulus, and the body's response is the unconditioned response. If conditioning occurs: as soon as the injection happens, the body starts mobilizing its defense BEFORE the drug enters the brain. As a result, the drug has less effect and the body develops tolerance against the drug. Indeed, several research studies have provided evidence that supports the idea that—for some drugs--drug tolerance is a result of classical conditioning.

46. If you want to improve your memorization of a list of words, you should avoid

- A. attaching distinctive retrieval cues to each word on the list.
- B. memorizing similar materials afterward. **
- C. thinking about the meaning of each word on the list.
- D. long delays between one study session and the next.

47.1%, .10. A bad item. Chapter 7. Memory inference can occur if you try to memorize words after memorizing a list of similar words. This occurs because when learning individual words, you also learn the gist of what they are all about. When you try to retrieve the list later, you reconstruct a memory of what must be on the list. For example, if you memorize a list of fruits from List A and List B also includes fruits, you will misremember some of the fruits from List B when trying to recall List A. This is because you learned the List A is a list of fruits, so you think—erroneously--that those fruits from List B must be from List A.

47. Going to sleep immediately after reading something may improve memory of the material. A possible explanation is that going to sleep
- A. attaches distinctive retrieval cues to the items to be remembered.
 - B. increases the encoding specificity.
 - C. decreases retroactive interference. **
 - D. takes advantage of the actor-observer effect.

41.4%, -.02. A bad item. Chapter 7. Retroactive interference occurs when new material increases forgetting of old material. Going to sleep immediately after reading something would reduce the chances of you encountering new materials—thus, it would decrease retroactive inference.

48. Cognitive psychologists distinguish between Type 1 and Type 2 thinking. That distinction is analogous to which other distinction?
- A. the peripheral and central routes to persuasion **
 - B. semantic memory and episodic memory
 - C. objective and projective personality tests
 - D. drive and incentive theories of motivation

17.3%, .37. Chapter 8. Type 1 thinking relies on heuristics, which are strategies for simplifying a problem and generating a satisfactory guess. It's quick, automatic, and works most of the time--but not always. Type 2 thinking relies on algorithms—explicit procedures for calculating every hypothesis. We use this thinking for evaluating evidence and mathematical equations. However, it can take us a long time to get to an answer. The peripheral route to persuasion is analogous to Type 1, because, when using this route to persuasion, people are only attending to superficial factors (such as a person's appearance and reputation). That is, they are relying on quick heuristics to make a decision. People who are using the central route to persuasion are investing in the necessary time and effort to evaluate the evidence and logic behind the message. As in type 2 thinking, they are taking a longer route to decision using explicit procedures.

49. Which of the following illustrates what is meant by the word-superiority effect?
- A. After children learn to speak, they learn other skills more rapidly than before.
 - B. People can read a blurred word of print more easily than they can read a single blurred letter. **
 - C. People who store their memories in words remember them longer and more accurately than those who store them in other ways.
 - D. Psychological experimenters get clearer results if they read the instructions aloud than if they ask subjects to read them.

58.7%, .45. Chapter 8. According to the word-superiority effect, people identify a letter more accurately when it is presented as part of a word than when it is presented by itself. Thus, people can read a blurred word of print more easily than they can read a single blurred letter. This is likely due to our perceptions and memories being represented by whole units corresponding to sets of neurons in the brain.

50. For which of the following pairs would we expect the highest correlation of IQ scores?

- A. monozygotic twins raised together **
- B. monozygotic twins raised separately
- C. dizygotic twins raised together
- D. dizygotic twins raised separately

93.3%, .15. Chapter 9. There is greater similarity between monozygotic twins than dizygotic twins—suggesting a strong genetic component (eliminating choices C and D). In addition, as adopted children grow older, their IQ begins to correlate more strongly with those of their biological parents—suggesting that there is influence from the environment as well. This suggests that monozygotic twins raised together—in the same environment—would have the highest correlation of IQ scores.

51. Which of the following is an example of a "cohort effect"?

- A. the Flynn effect **
- B. the Stroop effect
- C. the framing effect
- D. the mere exposure effect

39.4%, .48. Chapter 9. The Flynn effect refers to the observation that decade by decade, generation by generation, people's raw scores on IQ tests have gradually increased. This is an example of a cohort effect because differences in the test scores are likely accounted for by the differences in experiences, nutrition, medical interventions, etc encountered by people from different cohorts (i.e. generations or decades).

52. If we want to determine whether an IQ test is biased against some group, what is the most important question to ask?

- A. Do members of this group get lower scores than average for other people?
- B. Do members of this group do better in school than their scores predict? **
- C. How many members of this group were on the committee that wrote the test?
- D. Do the test items include examples about people in this group?

33.7%, .12. A bad item. Chapter 9. A biased test overstates or understates the true performance of one or more groups. Because an IQ test is linked to aptitude and academic performance, an IQ test should predict performance well. An example is that the academic performance of women who enter school after 25 is better than their SAT scores predict, and thus the test is biased against them.

53. Suppose a new personality test measures your extraversion by taking your date of birth (such as the 25th) and multiplying by the last two digits of the zip code where you were born. What, if anything, can we predict about the results of this test?

- A. The test will have high reliability. **
- B. The test will have high validity.
- C. The test will have low reliability.
- D. We can make no predictions about its reliability or validity.

56.7%, .58. Chapter 9. A high reliability of a test produces the same results nearly every time. While this test is likely not a very valid indicator of extraversion, if you retake the test, you will get the exact same score, making it highly reliable.

54. The most serious criticism of Kinsey's survey of sexual behavior is that he

- A. did not obtain a representative or random sample. **
- B. violated the principle of parsimony.
- C. failed to use a double-blind design.
- D. did not use descriptive statistics to present his data.

67.3%, .33. Chapter 11. Although Kinsey's sample was large, he obtained most of his interviews from members of cooperative organizations, from fraternities to nunneries, mostly in the US Midwest. Later, researchers using more representative samples of the population obtained significantly different results.

55. The development of external sexual anatomy depends mainly on which hormone?

- A. insulin
- B. endorphin
- C. testosterone **
- D. estrogen

86.5%, .28. Chapter 11. The development of external sexual anatomy depends mainly on testosterone. Male fetuses secrete higher levels of the hormone than females at 7th to 8th weeks after conception, which causes the tiny fetal structures to grow into a penis and scrotum. Due to lower levels of testosterone, the structures develop into a clitoris and labia in females. Estrogen, though important for female **internal** development, has little effect on the development of external anatomy.

56. Activity of the sympathetic nervous system is especially important for

- A. emotion **
- B. auditory perception
- C. visual perception
- D. fine control of the muscles

42.3%, .20. Chapter 12. Any stimulus that arouses emotion alters the activity of the automatic system—which controls organs such as the heart and intestines. The automatic system consists of the sympathetic and parasympathetic system. Researchers measure sympathetic nervous system arousal as an indicator of strong emotion (..though this cannot reveal **which** emotion someone is feeling).

57. Which of the following is consistent with the James-Lange theory?

- A. The feeling aspect of emotion depends on sensations of body activity. **
- B. Perception of color depends on a comparison of responses by 3 types of cones.
- C. Perception of color depends on opposite colors, such as red vs. green.
- D. People attempt to minimize any conflict between their beliefs and their actions.

60.6%, .56. Chapter 12. According to the James-Lange theory, your interpretation of a stimulus evokes automatic changes and sometimes muscle actions. Your perception of those changes (i.e. the sensation of body activity) is the feeling aspect of your emotion.

58. Our tendency to overemphasize internal explanations of other people's behavior is known as

- A. the Flynn effect.
- B. the representativeness heuristic.
- C. the fundamental attribution error. **
- D. proactive interference.

67.3%, .58. Chapter 13. Fundamental attribution error is the tendency to overemphasize internal explanations for other people's behavior even when we see evidence for an external influence on their behavior. We assume a strong similarity between someone's current actions and his or her disposition. The error is likely due to cultural influences.

59. Cognitive dissonance often produces a long-term change in someone's

- A. choice of friends.
- B. attitudes. **
- C. memory.
- D. extraversion.

63.5%, .32. Chapter 13. Cognitive dissonance is a state of unpleasant tension that people experience when they hold contradictory attitudes or when their behavior contradicts their stated attitudes. One way that someone reduces this tension is to change their attitude to match what they are saying/doing.

60. Both Freud and Piaget described stages in children's development. What was the main difference in the ways they discovered these stages?

- A. Piaget studied children older than those than Freud studied.
- B. Piaget actually watched children, and Freud did not. **
- C. Freud dealt with children's intellect while Piaget dealt with their emotions.
- D. Piaget used a cross-sectional method while Freud used a longitudinal method.

32.7%, .34. Chapter 14. Freud based his theories on his work with his adult patients. His main evidence for his interpretations was that he could construct a coherent story linking a patient's symptoms, dreams, etc. Piaget's work is based on observations he had while administering IQ tests to children and observations of his own children.

61. Why do psychologists periodically revise tests of intelligence and personality?

- A. Changes in society require psychologists to make the tests easier and easier.
- B. After the test has been used for a few years, people know what is on the test.
- C. Psychologists become bored with using the same test.
- D. The norms that were appropriate in the past have become obsolete. **

87.5%, .25. Chapter 14. As noted above, decade by decade, people's raw scores on IQ tests have gradually increased (the Flynn effect), because of differences in experiences, nutrition, medical interventions, etc. Test makers have had to make the tests harder to keep a mean score of 10. Thus, the norms that were appropriate in the past have become obsolete

62. The systematic desensitization of a phobia resembles which aspect of learning?

- A. shaping **
- B. backward conditioning
- C. spontaneous recovery
- D. discrimination

22.1%, .27. Chapter 15. Systematic desensitization is a method of reducing fear by gradually exposing people to the object of their fear. It resembles Skinner's shaping procedure in that the person masters one step before going on to the next and if the distress is too great, then the therapist goes back several steps.

63. What is a similarity between bulimia and bipolar disorder?

- A. Both conditions affect mostly teenage girls.
- B. The same medications are effective treatments for both conditions.
- C. Both conditions seem to be occurring less frequently than they did in the past.
- D. In both cases people alternate between one behavior and its opposite. **

76.0%, .18. Chapters 11 & 15. In bipolar disorder, one alternates between mood extremes: typically between depression and mania, in which individuals are constantly active and uninhibited. Bulimia nervosa is when one alternates between self-deprivation of food and periods of excessive eating, and often purging during the times of excessive eating. They are similar in that they involve alternating between two opposing behaviors.

64. Why does 19th-century psychophysics reflect the emergence of scientific psychology?

- A. For the first time, the mind was studied by physicists, and physics is the basic science.
- B. Psychophysics ties private experience to publicly observable variables. **
- C. Psychophysics relates mental life to its physiological basis in the brain.
- D. Scientists turned away from philosophical inquiries into the mind to controlled studies of animal behavior.

15.4%, .11. A bad item. Module 1, Lecture 1. Psychophysics challenged an early position (influenced by Descartes) that viewed the mind and body as different substances—with the mind occupying no space at all. In contrast, Psychophysics tied relations between physical stimuli and private corresponding sensory experience -- demonstrating, in the process, that private sensory experience was not only measurable but lawful.

65. How do the sympathetic and parasympathetic nervous systems differ?

- A. The sympathetic nervous system governs "emotional" responses, while the parasympathetic nervous system is more "cognitive" and "rational".
- B. The sympathetic nervous system acts as a unit, while parasympathetic activity is more discrete. **
- C. Sympathetic nervous system activity lasts longer, while parasympathetic nervous system activity is characterized by rapid onset and offset.
- D. Damage to the sympathetic nervous system results in paraplegia, while damage to the parasympathetic nervous system causes dementia.

32.7%, .12. A bad item. Module 2, Lecture 2. The sympathetic nervous system mobilizes the body to meet emergencies by responses characterized by either "flight or fight", while the parasympathetic nervous system normally mediates vegetative functions such as digestion, elimination, and reproduction. One importance difference between the two is that the sympathetic nervous system tends to act as a unit, mobilizing the entire body to meet the stressor, while the parasympathetic tends to act on one organ at a time, depending on where it is needed most.

66. Coma results from damage to the _____, while the “locked-in” syndrome results from damage to the _____.

- A. hippocampus; hypothalamus
- B. reticular formation; pons **
- C. medulla; cerebellum
- D. thalamus; spinal cord

43.3%, .34. Module 2, Lecture 3. Coma can result from damage to the reticular formation and other parts of the posterior brainstem. “Locked-in” syndrome is due to damage that is to the upper part of the anterior brain stem, excluding the reticular formation, but including portions of the pons. The damage extends to the trigeminal nerve (V), which innervates the muscles of the lower face, so that the patient cannot speak (and also other motor centers that innervate the skeletal musculature). However, the damage spares the oculomotor nerve (Cranial Nerve III) and the trochlear nerve (Cranial Nerve IV), permitting voluntary movements around the eyes.

67. Which function and location are mismatched?

- A. Motor activity; frontal lobe.
- B. Audition; parietal lobe **
- C. Vision; Occipital lobe
- D. Speech comprehension; temporal lobe

44.2%, .37. Module 2, Lecture 4. The parietal lobe contains the primary somatosensory cortex, which controls the sensation of touch, heat, and cold in various body parts. It also has a role in attention. The primary auditory cortex is in the temporal lobe.

68. Given all the discussion of the “1%” and the “99%” in the United States, the most representative measure of national income would be the:

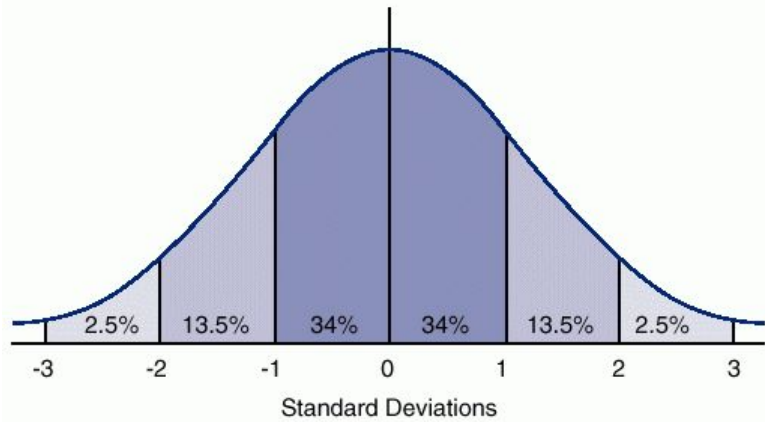
- A. mean.
- B. median. **
- C. mode.
- D. z-score.

53.9%, .37. Module 3, Lecture 6. The median is the point which divides the distribution exactly in half: below the median there are 50% of the observations, and 50% of the observations are above the median. It is determined by rank-ordering the observations and finding the point that divides the distributions in half. When a distribution is skewed—for example, in discussions of the 1% and 99%, people point out that a large portion of the nation’s income is owned by the 1%--the median would be the most representative measure national income. (The skewed distribution would push the mean higher than the median)

69. A scale of friendliness has a mean of 50 and a standard deviation of 10. An individual with a friendliness score greater than 70 would be expected to occur in about ____ of the time.

- A. 5% **
- B. 10%
- C. 20%
- D. 60%

65.4%, .39. Module 3, Lecture 6. The normal distribution curve permits us to determine the extent to which



something might occur by chance.

In this case, 70 is two standard deviations from the mean. To find that person's percentage from a normal curve graph like above, you just add up all of the previous percentages (that represent the percentages of people expected to get score in that particular range): 13.5%+34%+34%+13.5%= 95%. 95% represents the number of people expected to get BELOW 70. If we subtract it from 100%, we get the number expected to get ABOVE 70 (5%). As a general rule, we can infer that approximately 68% of the observations will fall within 1 standard deviation of the mean; approximately 95% of the scores will fall within 2 standard deviations; and approximately 99% of observations will fall within 3 standard deviations.

70. "Instinctual" behavior:

- A. acts in opposition to behavioral adaptation.
- B. is driven more by emotion and motivation than by cognition.
- C. can interfere with an individual's adaptive response to a changed environmental niche. **
- D. involves the body's entire skeletal musculature.

35.6%, .26. Module 4, Lecture 7. Instincts are extremely limited. They have been shaped by evolution to enable the species to fit a particular environmental niche, which is fine so long as the niche doesn't change. When the environment *does* change, evolution requires an extremely long time to change behavior accordingly -- much longer than the lifetime of any individual species member. In this way, instinctual behavior can interfere with an individual's adaptive response to a changed environmental niche

71. Partial reinforcement:

- A. facilitates acquisition in classical but not instrumental conditioning.
- B. retards extinction in instrumental conditioning **
- C. is the defining characteristic of observational learning.
- D. impairs spontaneous recovery of unconditioned responses.

62.5%, .49. Module 4, Lecture 8. Different schedules of reinforcement can result in different patterns of behavior. In the case of partial reinforcement, acquisition is retarded, but resistance to extinction increases.

72. Tolman's experiment on "latent learning" showed that:

- A. reinforcement is not necessary for learning to occur. **
- B. animals become aggressive when they cannot predict the onset of an unconditioned response.
- C. animals become passive when they cannot predict the onset of an unconditioned response.
- D. sensory preconditioning only occurs when the unconditioned stimulus is aversive in nature, like shock.

72.1%, .44. Module 4, Lecture 9. In his experiment on latent learning: one group of rats were rewarded every trial with food and showed a gradual reduction in errors, a second group received no reward and showed no reduction in errors, and a third group did not receive a reward until Trial 11 of the experiment after which they showed an immediate reduction in errors. Tolman concluded that the animals in this group learned how to get from the start box to the goal box on the first 10 trials, but just needed a reason to do it. This reason was provided on Trial 11 and subsequent trials. In other words, Tolman's animals learned the maze without any reinforcement. Over 10 trials of exploration, they developed a "mental map" of their environment, which was subsequently available for use for a variety of purposes. However, they didn't perform a goal-directed response until the introduction of reinforcement established a goal. This suggests that reinforcement controls performance rather than learning and it is not necessary for learning to occur.

73. What is the distal stimulus for vision?

- A. The pattern of light and shadow falling on the retina of the eye.
- B. The activity in opponent processes arising in the lateral geniculate cortex.
- C. Whatever the person is looking at. **
- D. Electromagnetic radiation of roughly 380-780 nanometers in wavelength.

29.8%, .24. Module 5, Lecture 11. The distal stimulus is the object of perception itself -- the tree, or rock, or ocean, or car that exists in the world outside the mind. In contrast, the proximal stimulus consists of all the physical energies emanating from the distal stimulus, and which fall on the sensory receptor organs associated with our eyes, ears, etc. The proximal stimulus might be a pattern of light waves reflected from the tree, or a pattern of sound waves generated by the motion of its branches and leaves.

74. In a signal-detection experiment, the stimulus is “on” for 75% of the trials. An observer with a “liberal” bias would show _____ compared to an unbiased observer:

- A. an increase in hits.
- B. an increase in false alarms **
- C. an increase in misses.
- D. an increase in correct rejections.

58.7%, .27. Module 5, Lecture 13. In the basic signal detection experiment, a stimulus, or signal, is presented against a background of noise. Some trials present both signal and noise, others present just noise (these are known as catch trials); and the task of the subject is to say, on each trial, whether the signal is present. The task is made fairly difficult by the fact that the signal is just slightly more intense than the noise. This situation injects considerable uncertainty into each trial. When the signal is present for a large proportion of trials (i.e. 75% of the trials), subjects will be biased toward saying “yes” even when they are uncertain -- after all, the signal is usually present. That is, they will tend to adopt a liberal response bias and lower their criterion for saying “yes”. As a result, they will make a lot of false alarms.

75. When reading the sentence, “Many people think that birch can be quite painful”, many subjects will misread *birch* as *birth* instead. This illustrates the effect of _____ processing.

- A. phonemic.
- B. orthographic
- C. top-down **
- D. bottom-up

47.1%, .43. Module 5, Lecture 15. Top-down processing (also known as conceptually driven, hypothesis-driven, or expectation-driven processing) takes input from a higher-level representation, such as a word, and generate a lower-level representation, such as a letter. It involves knowledge that is derived from previous experiences, and retrieved from memory, by which we recognize patterns of features as meaningful. In this case, people are using previous knowledge about birth being painful to extrapolate the meaning of the sentence. They are not relying on the features of the words—such as the letters—to generate words (this would be bottom-up processing).

76. Imagine that Patient H.M. is asked to remember a list of 15 words, presented once under different conditions. We would expect him to remember:

- A. more words with a fast rate of presentation (holding the study-test interval constant).
- B. more words with a slow rate of presentation.
- C. more words with a 30-second interval between study and test (holding the presentation rate constant). **
- D. more words with a 60-second interval between study and test.

24.0%, -.12. A bad item. Module 6, Lecture 17. Patient H.M. had normal short-term memory, but impaired long-term memory. As a result, holding the presentation rate constant, he would be able to remember more words with a 30 sec interval between the study and test—since some of those words would remain in his “short term memory storage.” By 60 seconds, those words would be gone, since he would not be able to encode them (i.e. his short-term memory consolidation was impaired).

77. Experiments on “depth of processing” illustrate the importance of:

- A. schematic processing.
- B. maintenance rehearsal.
- C. elaborative rehearsal. **
- D. chunking.

44.2%, .36. Module 6, Lecture 18. In depth of processing experiments, subjects were presented with a list of words. The researchers found that memory was relatively poor for words that had been subject to orthographic or phonemic orienting tasks—i.e. shallow processing—compared to the semantic or sentence tasks—which required deeper processing. This illustrates that memory for an event is a function of the extent to which that event is analyzed and related to pre-existing knowledge at the time of encoding. Specifically, it suggests that in elaborative rehearsal—which adds something to the trace by connecting the new memory up to things we already know—the added value is critical to creating a long-lasting memory trace.

78. The post-event misinformation effect illustrates the importance of:

- A. state-dependent retention.
- B. associative memory illusions.
- C. reconstructive activity. **
- D. encoding specificity.

55.8%, .17. Module 6, Lecture 20. After observing storytellers, Bartlett concluded that remembering involved reconstructive activity. That is the rememberer retrieves the dominant details of the story, and something about his or her attitude toward the event; and then builds up the rest from that foundation, resulting in a narrative that may well be coherent, but may not be accurate. This contributes to post-event misinformation effect—where misinformation acquired *after* an event is incorporated into the person's memory for the event itself.

79. When asked to name *fruits*, most people say *orange* and *cherry* before they say *pickle* or *tomato*. This illustrates _____.

- A. disjunctive categorization.
- B. imperfect nesting.
- C. variations in typicality. **
- D. the difference between central and peripheral features.

46.2%, .41. Module 7, Lecture 21. Variations in typicality among members of a category can be very large. That is, some members are better instances of their categories than others. Though all of the above items are fruits (which are the reproductive bodies of seed plants), people generally consider orange and cherries as better instances of fruits than pickles or tomatoes.

80. Subjects study a list of unfamiliar names, like *Sebastian Weisdorf*. Later they are shown a list of names, including some fairly famous names (like *Minnie Pearl*) and some nonfamous names (like *Adrian Marr*), and are asked to place a checkmark next to any that belong to “famous” people. Among the nonfamous names on this second list, subjects are more likely to misjudge *Sebastian Weisdorf* than *Adrian Marr* to be famous. This error appears to reflect the operation of the _____ heuristic.

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

31.7%, .38. Module 7, Lecture 22. The availability heuristic is a procedure that bases judgments of frequency and probability on the ease with which instances can be brought to mind. In the above example, the prior presentation of the non-famous names induced a priming-based feeling of familiarity. However, the participants’ explicit memory was poor for the unfamiliar names, so their feeling of familiarity was falsely attributed to fame. So, by virtue of priming, the feeling of familiarity, and the availability heuristic, the non-famous people from the first list became famous.

81. In contrast to birdsong, human speech is:

- A. universal within a species.
- B. learned with no reinforcement.
- C. not acquired during a critical period.
- D. creative. **

33.7%, .36. Module 7, Lecture 25. Human speech is creative in that it allows people to generate and understand novel utterances that have never been heard or spoken by them (or anyone else) ever before. This makes human speech unique in nature. Though birds are known to improvise on their songs, the basic song remains unchanged.

82. In cognitive-evaluation theories of emotion:

- A. facial expressions are automatically elicited by particular stimuli.
- B. different emotions are associated with particular patterns of physiological arousal.
- C. arousal is interpreted in terms of the situational context in which it occurs. **
- D. physiological arousal occurs when a person’s expectations are fulfilled.

43.3%, .40. Module 8, Lecture 26. According to cognitive-evaluation theories of emotion, different emotional states are cognitive constructions: Emotional stimuli elicits a state of physiological arousal that is both undifferentiated and unexplained. This state of arousal is then interpreted by the actor -- an interpretation that is shaped by information available in the current situational context.

83. Intrinsic motivation is undermined when:

- A. rewards are perceived as controlling. **
- B. rewards are perceived as informational.
- C. rewards are unexpected.
- D. rewards are delivered immediately after performance.

55.8%, .38. Module 8, 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. Extrinsic 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.

84. Patient H.M. studies a list of words, such as *ashcan*. Later, he is asked to recall the words, and cannot do so. But when asked to complete the stem *ash*___ with a legal English word, he immediately responds with *ashcan* instead of the more familiar *ashtray*. This _____ is an indicator of _____.

- A. subliminal perception; preattentive processing
- B. priming effect; implicit memory **
- C. incidental effect; artificial grammar learning
- D. neglect; covariation detection

83.7%, .33. Module 11, Lecture 37. Priming effect is where performance of one task influences subsequent performance of an entirely different task. In this case, H.M.'s performance on studying a list of words influence his performance on completing stems. This is an indicator of implicit memory, because his performance is attributable to his **performance** on some past event and not due to his conscious recollection of some past event (as in explicit memory).

85. The Doctrine of Reciprocal Determinism states that:

- A. cognition influences emotion, but emotion also influences cognition.
- B. axons stimulate dendrites, but dendrites also stimulate axons.
- C. personality influences behavior, but behavior also influences personality. **
- D. genes and environments act together to shape personality.

50.0%, .15. Module 9, Lecture 28. Reciprocal determinism asserts that people, their environments, and the behavior that takes place within those environments form a complex, dynamic, interlocking system characterized by nonlinear, bidirectional, causal relations. That is, features of the person affect the environment; and features of the environment affect the person.

86. Assume that an existing intelligence test consists of 40 items, and correlates $r = .40$ with academic achievement. The developer of a new intelligence test claims that her 25-item test is better than the existing standard, even though it correlates only $r = .35$ with academic achievement. This argument is based on the _____ of the new test.

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

44.2%, .27. Module 9, Lecture 29. The old test has high reliability as evidenced by its higher correlation coefficient of $.40$. However, the developer's test only consists of 25 items while the old test consists of 40 items. Thus, her test provides an economic advantage over the old test—that is, its level of utility is higher. If a cost/benefits ratio (where cost refers to the expense of constructing, administering, and scoring the test, and benefits refers to the reliability of the test in question) is taken into consideration, her test is better. The $.5$ increase in reliability offered by the old test is just not high enough to warrant a longer test.

87. The “personality coefficient” refers to the _____:

- A. test-retest reliability of a personality test.
- B. ratio of a test’s reliability to its validity.
- C. predictive validity of a personality test. **
- D. the standard error of the mean score on the personality test.

43.3%, .26. Module 9, Lecture 30. The personality coefficient is the ceiling, or upper limit, to which an individual’s behavior in a specific situation could be predicted from knowledge of his or her generalized personality traits. Thus, it refers to the predictive validity of a personality test.

88. Which aspect of the environment *does not* belong with the others?

- A. Family
- B. Race or ethnicity
- C. Gender **
- D. Neighborhood

48.1%, .14. A bad item. Module 10, Lecture 33. Family, race/ethnicity, and neighborhood are all components of a shared environment among siblings. Gender, while it can be shared if siblings are of the same gender, can also be part of the nonshared environment if siblings are not of the same gender.

89. According to Zajonc’s “confluence model” of intellectual development:

- A. the developing child is a passive recipient of the family’s intellectual resources.
- B. the spacing between children makes no difference to intellectual development.
- C. newborn children dilute the intellectual environment of a family. **
- D. IQ is independent of family size.

44.2%, .43. Module 10, Lecture 34. The confluence model of intellectual development has two main features: the dilution effect and the growth effect. The dilution effect is that a newborn child diminishes the intellectual resources available within a family. The growth effect is that each child contributes more intellectual resources as he or she grows up, bringing the family IQ average back up. Spacing of siblings makes a difference – if they are spaced close together, the effect is increased, and if they are further apart, it is weakened.

90. Genetic females with the female adrenogenital syndrome:

- A. are born with normally feminine external genitalia, but lack feminine internal genitalia.
- B. are identified and raised as girls. **
- C. develop masculine secondary sex characteristics at puberty.
- D. are at increased risk for transsexualism (intersex).

33.7%, .30. Module 10, Lecture 35. Female adrenogenital syndrome causes a failure of the adrenal glands to function properly, resulting in the circulation of androgen to a fetus that is genetically female. The external genitalia are masculinized but the internal reproductive anatomy is still female. These individuals are surgically corrected, identify with, and are raised as females.

91. Based on the “false belief” task, children older than 5 years of age:

- A. are as capable as adults at telling untruths.
- B. are as capable as adults at detecting deception.
- C. understand that perceptions are not the same as reality.
- D. understand that other people’s beliefs may be different from their own. **

41.4%, .26. Module 10, Lecture 36. The false belief task is a test of theory of mind in children. It involves a child watching a puppet hide a ball in an oatmeal container. After the puppet is put away, the experimenter and the child move the ball to a box. The puppet is then brought back out and the child is asked where the puppet will look for the ball. Children younger than 4 typically say the box, but those 5 and older, who have developed theory of mind and the understanding that others’ beliefs may be different than their own, will suggest the oatmeal container.

92. The latest editions of the *diagnostic and Statistical Manual for Mental Disorders* (i.e., since *DSM-III*) view the various diagnostic labels as:

- A. proper sets sharing certain defining symptoms.
- B. fuzzy sets sharing characteristic symptoms. **
- C. groups of exemplars bound together by a theory of underlying psychopathology.
- D. dimensional rather than categorical in nature.

65.4%, .32. Module 11, Lecture 38. DSM-III and more recent versions categorize syndromes as fuzzy sets, in that symptoms are considered to be characteristic rather than defining features of syndromes. It was changed to fuzzy sets because earlier versions were based on proper sets but it made it challenging to understand psychological illnesses when there was only partial expression or combined expression of syndromes.

93. Experimental studies show that schizophrenic patients have difficulty with:

- A. managing negative emotions.
- B. consolidating short-term memory into long-term memory.
- C. maintaining information in an active state. **
- D. hallucinations interfering with visual imagery.

26.9%, .30. Module 11. Studies of dichotic listening, backward masking, and working memory have all demonstrated that individuals with schizophrenia tend to have difficulty in central and peripheral mechanisms of attention, thus struggling with maintaining information in an active state.

94. Common pharmaceutical treatments for depression _____ at the synapse.

- A. increase levels of norepinephrine and serotonin. **
- B. decrease levels of norepinephrine and serotonin
- C. increase levels of dopamine
- D. decrease levels of dopamine

51.9%, .45. Module 11. Most pharmaceutical treatments for depression increased serotonin and/or norepinephrine levels at the synapse. Tricyclics and MAOIs both increase the release of norepinephrine and serotonin into the synapse. SSRIs decrease reuptake of serotonin by the presynaptic neuron, thereby also increasing levels at the synapse.

Go to the next page.

95-97. Read the following passage (excerpted and adapted from “‘Superstition’ in the Pigeon” by B.F. Skinner, published in 1948), **and then answer questions 95-97.**

To say that a reinforcement is contingent upon a response may mean nothing more than that it follows the response. Conditioning takes place presumably because of the temporal relation only, expressed in terms of the order and proximity of response and reinforcement. Whenever we present a state of affairs which is known to be reinforcing, we must suppose that conditioning takes place, even though we have paid no attention to the behavior of the organism in making the presentation. A simple experiment demonstrates this to be the case.

A pigeon is brought to a state of hunger by reducing its weight. It is put into a cage. A food hopper attached to the cage may be swung into place so that the pigeon can eat from it.

If a clock is now arranged to present the food at regular intervals *with no reference whatsoever to the bird's behavior*, operant conditioning usually takes place. .

- One bird was conditioned to turn counter-clockwise about the cage, making two or three turns between reinforcements.
- Another repeatedly thrust its head into one of the upper corners of the cage.
- A third developed a 'tossing' response, as if placing its head beneath an invisible bar and lifting it repeatedly.
- Two birds developed a pendulum motion of the head and body, in which the head was extended forward and swung from right to left with a sharp movement followed by a somewhat slower return..
- Another bird was conditioned to make incomplete pecking or brushing movements directed toward but not touching the floor.
- In two other cases, conditioned responses were not clearly marked.

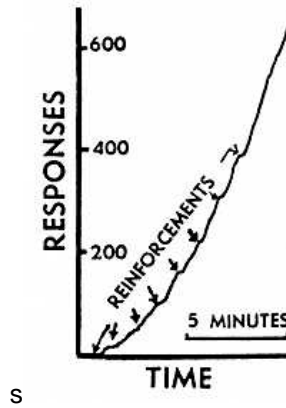
None of these responses appeared in any noticeable strength during adaptation to the cage or until the food was periodically presented.

The conditioning process is usually obvious. The bird happens to be executing some response as the hopper appears; as a result it tends to repeat this response. If the interval before the next presentation is not so great that extinction takes place, a second 'contingency' is probable. This strengthens the response still further and subsequent reinforcement becomes more probable. It is true that some responses go unreinforced and some reinforcements appear when the response has not just been made, but the net result is the development of a considerable state of strength.

The effect appears to depend upon the rate of reinforcement. In general, we should expect that the shorter the intervening interval, the speedier and more marked the conditioning.

Another reason for the greater effectiveness of short intervals is that the longer the interval, the greater the number of intervening responses emitted without reinforcement. The resulting extinction cancels the effect of an occasional reinforcement.

According to this interpretation the effective interval will depend upon the rate of conditioning and the rate of extinction. Fifteen seconds is a very effective interval at the drive level employed in this experiment.



The experiment might be said to demonstrate a sort of superstition. The bird behaves as if there were a causal relation between its behavior and the presentation of food, although such a relation is lacking. There are many analogies in human behavior. Rituals for changing one's luck at cards are good examples. A few accidental connections between a ritual and favorable consequences suffice to set up and maintain the behavior in spite of many unreinforced instances. The bowler who has released a ball down the alley but continues to behave as if he were controlling it by twisting and turning his arm and shoulder is another case in point. These behaviors have, of course, no real effect upon one's luck or upon a ball half way down an alley, just as in the present case the food would appear as often if the pigeon did nothing -- or, more strictly speaking, did something else. Their appearance as the result of accidental correlations with the presentation of the stimulus is unmistakable.

95. The schedule of reinforcement employed in this experiment most closely resembles a:

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

78.9%, .27. Option “D” should have read “variable *interval*, of course, and I apologize for the typographical error (which we missed entirely, but some students caught during the exam); but because Option “C” was obviously the right choice, the error didn’t matter. Because the appearance of food occurs at regular intervals, the schedule of reinforcement most closely resembles a fixed-interval schedule. A fixed-interval schedule provides reinforcement for the first response after a specific time interval. Therefore, while no one behavior in particular is actually being conditioned, the bird is being conditioned by a fixed interval.

96. This experiment is most strongly based on the _____ assumption of the Stimulus-Response theory of learning.

- A. passive organism
- B. empty organism
- C. arbitrariness
- D. association by contiguity **

79.8%, .24. Association by contiguity is the idea that associations are formed between events that occur close together in space and time. Because the animal is engaging in various behaviors and the food is presented at a regular time interval, the animal will associate the behaviors it is engaging in at the time of the food arrival as the trigger of the food arriving (operant conditioning), despite the food arriving without reference to the behavior.

97. This experiment, as described, is lacking a(n):

- A. control condition.
- B. independent variable.
- C. dependent variable.
- D. statistical analysis. **

21.2%, .02. a bad item. The GSIs predicted that this would be trouble, and they were right. The experiment clearly has an independent variable: the presentation of food to a hungry bird, and the dependent variable: the bird's behavior over time. Its control variable is less direct, but because the experiment discusses variation in intervals and that fifteen seconds is the ideal interval, reason suggests that the intervals were varied and compared. There is no statistical analysis in this so-called experiment, as there is no mention of mathematically comparing timing of interval, timing of behavior, repeat behavior, etc. It is entirely qualitative in description.

98-100. Read the following passage (adapted from the *PsyBlog* website, maintained by Dr. Jeremy Dean of University College, London), **and then answer questions 98-100.**

As soon as humans are bunched together in groups we start to do odd things: copy other members of our group, favor members of own group over others, look for a leader to worship and fight other groups.

But think about the types of groups you belong to, and you'll realize they differ dramatically. Some groups are more like soldiers in the same unit or friends who have known each other from childhood. Other groups, though, are much looser. It seems impossible that people stood together for only 30 seconds to look at a painting can be said to form a group in any measurable way. Surely it's too fleeting, too ephemeral?

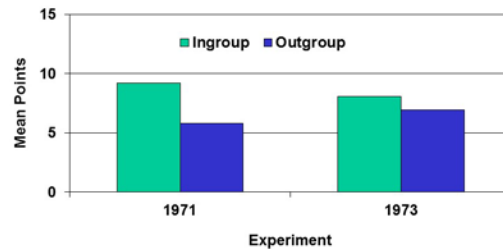
This is exactly the type of question social psychologist Henry Tajfel and colleagues (1971, 1973) set out to answer. They believed it was possible for a group, along with its attendant prejudices, to form at the drop of a hat. In fact they thought a group could form even when there was no face-to-face contact between members, none of the people knew each other and their 'group' behavior had no practical consequences. In other words they had absolutely nothing to gain (or lose) from this barely existent group.

Tajfel and colleagues came up with a neat solution for testing their idea. Subjects, who were 14 and 15 year-old boys, were brought into the lab and shown slides of paintings by Klee and Kandinsky. They were told their preferences for the paintings would determine which of two groups they would join. Of course, this was a lie designed to set up the idea of 'us' and 'them' in their minds. The experimenters wanted two groups, of 16 boys each, with not the faintest idea who was also in their own group or what the grouping meant, or what they had to lose or gain.

After this setup, the boys were taken to a cubicle, one at a time. Each was then asked to distribute virtual money to other members of both groups. The only information they had about who they were giving it to was a code number for each boy and that boy's group membership.

Distribution of Rewards

Tajfel et al. (1971); Billig & Tajfel (1973)



From the way the virtual money was distributed, the boys did indeed demonstrate the classic behavioral markers of group membership: they favored their own group over the other. And this pattern developed consistently over many, many trials and has subsequently been replicated in other experiments in which groups were, if you can believe it, *even more minimal*.

The boys had no idea who was in their group 'with them' or who was in the other group. But, the most puzzling aspect of this experiment is that the boys had nothing whatsoever to gain from favoring their own group – there didn't seem to be anything riding on their decisions.

Out in the real world there's a good reason to favor your own group – normally it is also advantageous to yourself. You protect yourself by protecting others like you.

What Tajfel argued, though, was that there *was* something riding on the decisions the boys made, but it was something very subtle, yet incredibly profound. People build their own identities from their group memberships. For example, think of each of the groups you belong to: say at work, or within your family. Part of who you are is probably defined by these groups. As our group membership forms our identity, it is only natural for us to want to be part of groups that are both high status and have a positive image. Crucially though, high-status groups only have that high status when compared to other groups. In other words: knowing your group is superior requires having a worse group to look down upon.

Seen in the light of social identity theory, then, the boys in the experiment do have a reason to be selfish about the allocation of the virtual cash. It is all about boosting their own identities through making their own group look better. Social identity theory states that our identities are formed through the groups to which we belong. As a result we are motivated to improve the image and status of our own group in comparison with others.

98. In addition to the information provided, what would you need to know to determine whether the differences observed in these experiments was statistically significant?
- A. The median number of points distributed between the groups.
 - B. The standard deviation of the means in question. **
 - C. The correlation between ingroup and outgroup.
 - D. The Z-scores associated with the means.

37.5%, .20. The standard deviation reflects the **variability** around the mean—that is, it is the difference between observed scores and the mean. The standard deviation would give us an idea of whether the mean differences are due to random chance or statistically significant differences. As a general rule, if two group means differ from each other by more than 2 standard deviations, this is rather unlikely to have occurred simply by chance and we would consider this a statistically significant difference.

99. The formation of even “minimal” groups in this experiment suggests that the ingroup-outgroup distinction is:
- A. motivated by economic self-interest.
 - B. stronger when groups are formed spontaneously.
 - C. the result of an automatic process. **
 - D. based on social status.

55.8%, .48. The minimal groups are able to form without any foreseeable criteria or similar characteristics among the individuals suggesting that the ingroup-outgroup distinction is the result of an automatic process.

100. If you were replicating this experiment, what *essential* control group would you add?
- A. A group of older or younger boys.
 - B. A group of boys who had no knowledge of their group membership. **
 - C. A group of boys who already had established a social identity.
 - D. A group of boys sampled from a different socioeconomic class.

77.9%, .31. In order to test whether the boys' knowledge of their group membership (i.e. independent variable) is influencing their distribution of rewards (i.e. the dependent variable), you would need to include a control condition in which a group of boys have no knowledge of their group membership. If there is not a statistical difference between the distribution of rewards for the experimental group and control group, you could conclude that boys' knowledge of their group membership is likely not accounting for the difference in reward distribution.

Exam Scoring and Feedback

The Final Exam will be scored and rescored according to the procedure specified in the Exam Information page of the Lecture Supplements. If you receive immediate feedback from bCourses concerning your Final Exam grade, this is unlikely to reflect the review and rescoring of the exam, as that process will only began after the on-campus exam has been completed, scored, and rescored. I will send out an announcement when the exam has been scored and rescored, and feedback posted, probably sometime on Saturday.

**Department of Psychology
Psychology W1**

Record of Answers

You must turn in your exam at the conclusion of the examination (your proctor will destroy it).

A copy of the exam, with answers and explanations, will be available after the exam has been graded.

Your proctor will send a PDF or fax of this answer sheet *only* to UCB Summer Sessions.

You may keep this answer sheet for your records.

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| 6. | A | B | C | D | 32. | A | B | C | D |
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| 11. | A | B | C | D | 37. | A | B | C | D |
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| 13. | A | B | C | D | 39. | A | B | C | D |
| 14. | A | B | C | D | 40. | A | B | C | D |
| 15. | A | B | C | D | 41. | A | B | C | D |
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| 18. | A | B | C | D | 44. | A | B | C | D |
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| 21. | A | B | C | D | 47. | A | B | C | D |
| 22. | A | B | C | D | 48. | A | B | C | D |
| 23. | A | B | C | D | 49. | A | B | C | D |
| 24. | A | B | C | D | 50. | A | B | C | D |
| 25. | A | B | C | D | 51. | A | B | C | D |
| 26. | A | B | C | D | 52. | A | B | C | D |

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