**From Inquiry to Understanding**

**Psychology and Scientific Thinking**

**Multiple Choice**

1. When students begin to read through their introductory psychology textbook, they are often surprised to learn that

A) commonsense explanations abound in the field of psychology.

*Incorrect. Commonsense explanations are frequently accurate, but they are not consistent with the science of psychology unless they have been appropriately researched.*

B) many of their beliefs about the causes of thoughts and behaviors are incorrect.

*Correct. Popular psychology has led many people to have incorrect impressions about many psychological phenomena.*

C) psychologists do not study people's everyday behaviors.

D) psychology is a unique field of study separate from philosophy and biology.

Answer: B

2. According to the authors, psychology is a method for

A) determining simple answers to complex questions.

B) acquiring more insight into the hows and whys of human behavior.

C) knowing how to turn people from maladaptive to adaptive actions, feelings, and thoughts.

D) restating commonsense findings in a more convoluted manner.

Answer: B

3. According to the authors, much of the knowledge from popular psychology sources

A) is consistent with the results of psychological research.

B) is contradicted by what psychological research has demonstrated.

*Correct. Many of the popular beliefs are demonstrated to be incorrect when they are appropriately researched.*

C) is not able to be studied empirically.

*Incorrect. Most of the information that you will see in a psychology course is capable of being examined empirically in one form of research or another. Not all questions, however, can be explored experimentally. This means that cause and effect relationships cannot always be adequately demonstrated.*

D) is of no or very little interest to psychologists.

Answer: B

4. Dr. Jones is offering a course this semester in popular psychology. His coverage of topics will likely be focused on the

A) history of modern psychology.

B) use of scientific theory in psychological practices.

*Incorrect. The science of research in psychology is often omitted when discussing popular psychology*

C) production of material and knowledge to be used by the general public.

*Correct. The popular psychology industry is described as “a sprawling network of everyday sources of information about human behavior.”*

D) diagnosis and treatment of mental illness.

Answer: C

5. According to your authors, the discipline of psychology is best thought of as

A) a field of self-help principles to eliminate mental problems.

B) a mixture of anecdotes and personal intuition about human behavior and mental processes.

C) a process for encouraging people to reach their ultimate potential.

D) the scientific study of the mind, brain, and behavior.

Answer: D

6. A psychologist is often skeptical of claims suggesting that

A) people are influenced by others' thoughts and behaviors.

B) a particular behavior is the result of a single causal variable.

*Correct. Most behaviors are the result of multiple factors. A single-variable explanation is very rarely accurate.*

C) a person's culture is a strong influence on his or her everyday thoughts and behaviors.

*Incorrect. Recent years have seen enormous increase in psychology’s recognition that the impact of culture on behaviors must always be considered.*

D) a person's future behavior is often difficult to predict accurately.

Answer: B

7. The variations that people show in their thinking, emotions, personalities, and behaviors are referred to as \_\_\_\_\_\_\_\_\_\_.

A) idiosyncratic distracters

B) idiographic anomalies

C) individual differences

D) confounding variables

Answer: C

8. Michelle constantly tells her boyfriend Niccolai that he doesn’t pay attention to her, and that this is why she tends to nag him to pay attention. Her repeated criticisms causes Niccolai to tune her out, which causes her to nag him even more. This bidirectional pattern of influence is what Albert Bandura would have called

A) reciprocal determinism.

*Correct. Reciprocal determinism suggests that various behaviors affect each other mutually, at the same time.*

B) scientific skepticism.

C) the premise of Occam’s razor.

*Incorrect. Occam’s razor suggests that the simplest explanation for a phenomenon is usually the most accurate explanation. It is not related to this question.*
D) cyclical impingement.

Answer: A

9. Dr. Katzopoulis wants to study the population of a recently discovered tribe of natives who live deep in the Amazon forest. He wants to know if their personalities develop in a manner that is similar to people who live in more westernized societies. He takes a popular personality inventory – the 16-pf – and translates it into the language of the tribespeople he is studying. From a scientific point of view, Dr. Katzopoulis is studying these natives from a(n) \_\_\_\_\_\_ approach.

A) naturalistic

B) emic

*Incorrect. In an emic approach, the study of a behavior of a culture is conducted from the perspective of a “native” of an insider.*

C) experimental

D) etic

*Correct. In an etic approach, the study of a behavior of a culture is conducted from the perspective of an outsider.*

Answer: D

10. Luis believes in an old southern tradition that eating clay will help his wife deliver a healthy baby. His tendency to believe he sees the world correctly is called

A) popular psychology.

B) naive realism.

*Correct. Naive realism refers to a person’s belief that he or she accurately and objectively sees the world as it is.*

C) common sense.

*Incorrect. It is an unfortunate truth that the way we want the world to be is infrequently the way the world is. Common sense would tell us not to expect things to come out just the way we want them to.*

D) a single-variable explanation.

Answer: B

 Page Ref: 5

11. \_\_\_\_\_\_\_\_\_\_ refers to the belief that we see the world precisely as it is.

A) Common sense

B) Confirmation bias

C) Single-variable explanation

D) Naive realism

Answer: D

 Page Ref: 5

12. Modern psychology is best considered to be a

A) collection of pieces of folk wisdom.

B) series of contradictions to be sorted out.

C) science.

*Correct. The study of psychology is a science, which means that there are specific methods for asking questions, gathering data, and answering questions.*

D) therapeutic process.

*Incorrect. Psychotherapy is a small part of the larger field of psychology. Modern psychology is best considered to be a science.*

Answer: C

 Page Ref: 6

13. A science is defined by

A) knowledge.

*Incorrect. Science may be considered the quest for knowledge, but this is not how science is defined.*

B) its concern with solving real-life practical problems.

C) its popularity among the general public.

D) its processes for gathering evidence.

*Correct. The way in which evidence is gathered is what defines a science. These data, when properly gathered, can be used to answer questions and generate theories.*

Answer: D

 Page Ref: 6

14. In science, a *scientific theory* is defined as a(n)

A) educated opinion about the natural world.

B) explanation for a large number of findings in the natural world.

*Correct. In order for a premise to be considered useful, it must provide an explanation for a large number of findings that occur in the natural world, including the psychological world.*

C) personal understanding of natural laws.

D) testable prediction about the natural world.

*Incorrect. A testable prediction about the natural world is a hypothesis, not a theory.*

Answer: B

 Page Ref: 7

15. When a psychologist mentions the term *scientific theory*, he or she is referring to something that

A) explains a single event.

B) explains a wide range of observations.

C) is no better an explanation than another person's opinion.

D) refers to an educated guess.

Answer: B

 Page Ref: 7

16. If a psychologist were to develop a theory of cognitive development, he or she would want his or her theory to explain \_\_\_\_\_\_\_\_ observations.

A) a moderate number of

B) a small number of

*Incorrect. The smaller the number of observations a theory explains, the less useful it becomes.*

C) a substantial number of

*Correct. Theories are used to explain multiple behaviors in the natural world, not just a single behavior.*

D) very few

Answer: C

 Page Ref: 7

17. Dr. Rashad offers the class an explanation for an extensive group of research findings connecting emotionality and nonverbal communication. Her explanation for this group of findings is a(n)

A) hypothesis.

*Incorrect. A hypothesis is a testable prediction – an educated guess – that is based on an existing theory.*

B) empirical conclusion.

C) operational definition.

D) scientific theory.

*Correct. A scientific theory is an explanation for a large number of findings in the natural world.*

Answer: D

 Page Ref: 7

18. Professor Clark gives her students an assignment to develop hypotheses on global warming. To be consistent with a scientific method, students should develop their hypotheses based on

A) their own existing beliefs about the issue.

*Incorrect. In fact, for research to be as “clean” and accurate as possible, researchers have to be very careful NOT*

*to let their own beliefs or biases influence their research.*

B) reports discussed on television.

C) untestable predictions.

D) a well-supported scientific theory.

*Correct. A hypothesis is a testable prediction derived from a scientific theory.*

Answer: D

 Page Ref: 7

19. Dr. Richburg’s botany class gathers specimens outside of the classroom for further study. Dr. Richburg instructs his students to develop a scientific theory that helps explain the biodiversity of the plants. The resulting theory should

A) provide an educated guess about the biodiversity of the plants.

B) explain observations about the plants and predict new findings about plant biodiversity.

*Correct. A scientific theory is an explanation for a large number of findings in the natural world that leads to testable predictions.*

C) explain a few findings about the biodiversity of the plants.

*Incorrect. A theory is an explanation for a large number of findings in the natural world.*

D) interpret what has already been discovered about the biodiversity of the plants.

Answer: B

 Page Ref: 7

20. The tendency to look for supportive evidence rather than actively seeking out contradictory evidence is known as

A) the availability heuristic.

B) belief perseverance.

C) the confirmation bias.

D) the hindsight bias.

Answer: C

 Page Ref: 8

21. “Seek and ye shall find” is a short and simple way to sum up

A) naive realism.

*Incorrect. This cliché suggests that we tend to find what we are looking for. That is the basis of the confirmation bias.*

B) belief perseverance.

C) empiricism.

D) confirmation bias.

*Correct. Confirmation bias is the tendency to seek out information that supports our point of view and ignore evidence that contradicts our point of view.*

Answer: D

 Page Ref: 8

22. Gwen has posted a questionnaire on MySpace asking her friends to support her idea of cell phones in the classroom. She ignores anyone opposing her beliefs, which is an example of

A) naïve realism.

*Incorrect. Naïve realism suggests that we believe that we see the world precisely as it is. The best answer to this question is the confirmation bias.*

B) conjunctive fallacy.

C) confirmation bias.

*Correct. The confirmation bias is the tendency to seek out information that supports our point of view and ignore evidence that contradicts our point of view.*

D) attribution bias.

Answer: C

 Page Ref: 8

23. Dr. Garonski is testing his hypothesis that people use hand gestures more in communication when emotionally aroused than when calm. When his results were reviewed, it was noted that Dr. Garonski sometimes missed seeing small gestures in the calm condition. This is an example of

A) conjunctive fallacy.

B) confirmation bias.

*Correct. Confirmation bias is the tendency to seek out information that supports our point of view and ignore evidence that contradicts our point of view.*

C) attribution error.

D) a single-variable explanation.

*Incorrect. The tendency to only consider information that is consistent with our views is called the confirmation bias.*

Answer: B

 Page Ref: 8

24. Police interrogators often assume that persons brought in for questioning have important knowledge about the crime in question. If this leads an interrogator to ask questions that assume the guilt of a particular individual rather than asking questions that would exonerate him or her, \_\_\_\_\_\_\_\_ may occur.

A) the anchoring and adjustment heuristic

B) the availability heuristic

C) belief perseverance

*Incorrect. Belief perseverance occurs when we cling to a belief even after we've been shown evidence that it is wrong.*

D) confirmation bias

*Correct. If the interrogator is only asking questions that confirm her belief and ignores questions that disprove her belief, then she is falling prey to the confirmation bias.*

Answer: D

 Page Ref: 8

25. Douglas believes that females are more polite and respectful than males. He easily recalls examples of this and constantly points out situations to others that support this belief. However, he often ignores evidence to the contrary. Douglas's belief about gender differences in socially appropriate behavior is maintained through

A) belief perseverance.

B) the confirmation bias.

*Correct. The confirmation bias is the tendency to seek out information that supports our point of view and ignore evidence that contradicts our point of view.*

C) the hindsight bias.

*Incorrect. The hindsight bias occurs when we are certain that we knew what was going to occur only after the event took place.*

D) the representativeness heuristic.

Answer: B

 Page Ref: 8

26. When people watch a debate, they often point out the internal contradictions, flaws in logic, and hypocrisy in positions they oppose while glossing over the same shortcomings for positions they support. This is an example of

A) the availability heuristic.

B) belief perseverance.

*Incorrect. Belief perseverance occurs when we cling to a belief even after we've been shown evidence that it is wrong.*

C) the confirmation bias.

*Correct. The confirmation bias is the tendency to seek out information that supports our point of view and ignore evidence that contradicts our point of view.*

D) healthy skepticism.

Answer: C

 Page Ref: 8

27. Gregg's nose itches as he is walking toward his telephone to call someone. Gregg phones his friend Maurice who tells him, "Man, we were just talking about you. That's freaky!" Gregg takes this as support for the folk wisdom "your nose itches when people are talking about you." In reality, this is an example of the *confirmation bias* because

A) Gregg failed to consider the times where his nose itched and no one was talking about him.

*Correct. Because Greg did not look at the times when his belief was not supported, and only consider times when his belief was supported, this demonstrates the confirmation bias.*

B) Gregg continues to believe this even though no evidence for it exists.

C) Gregg is not a scientist and therefore cannot answer the question.

*Incorrect. One need not be a scientist in order to accurately and effectively answer questions. Using the scientific method, however, is essential if the answers are to have any validity.*

D) the folk wisdom "your nose itches when people are talking about you" is an unfalsifiable question.

Answer: A

 Page Ref: 8

28. Students at a local high school are opposing restrictions the administration has placed on students interacting on social networking websites. The administration believes that the sites promote aggressive behavior among students. The students have offered research findings that show social networking sites do not increase aggression. They believe the administrators are only seeking out evidence that supports their view, which is an example of

A) critical thinking.

B) scientific skepticism.

*Incorrect. One of the keys to scientific skepticism is the willingness to be open to all evidence, not just bits of information that support one's own view.*

C) disinterestedness.

D) the confirmation bias.

*Correct. The confirmation bias is the tendency to seek out evidence that supports our preexisting beliefs and to neglect contradictory evidence. The example shows both pieces.*

Answer: D

 Page Ref: 8

29. Some traditions dating back hundreds of years believe in psychic phenomena and use it to explain occurrences in nature. These groups actively seek evidence that supports the ideology and discredit any form of scientific information that is opposed to their beliefs. Instead of asking questions that may redefine their traditions, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs and the traditions continue.

A) selective thinking

B) confirmation bias

*Correct. The confirmation bias is the tendency to seek out evidence that supports our preexisting beliefs and to neglect contradictory evidence. The example shows both pieces.*

C) analytical thinking

D) scientific skepticism

*Incorrect. One of the keys to scientific skepticism is the willingness to be open to all evidence, not just bits of information that support one's own view.*

Answer: B

 Page Ref: 8

30. According to your authors, \_\_\_\_\_\_\_\_ is the "mother of all biases."

A) the availability heuristic

B) belief perseverance

C) the confirmation bias

D) the hindsight bias

Answer: C

 Page Ref: 9

31. Because none of us wants to believe we are wrong, we are usually reluctant to give up cherished notions. This phenomenon is known as

A) belief perseverance.

*Correct. Belief perseverance is the tendency to stick to our initial beliefs even when evidence contradicts them.*

B) the confirmation bias.

*Incorrect. The confirmation bias is the tendency to seek out evidence that supports our preexisting beliefs and to*

*neglect contradictory evidence.*

C) the availability heuristic.

D) the fundamental attribution.

Answer: A

 Page Ref: 9

32. Rona believes that women make better elementary school teachers than men because women are more nurturing and less legalistic. When you present her with data that indicate male teachers perform very well at the elementary level, she tries to discredit the information. Rona is a victim of

A) the confirmation bias.

*Incorrect. The confirmation bias is the tendency to seek out evidence that supports our preexisting beliefs and to*

*neglect contradictory evidence.*

B) naive realism.

C) belief perseverance.

*Correct. Belief perseverance is the tendency to stick to our initial beliefs even when evidence contradicts them.*

D) critical thinking.

Answer: C

 Page Ref: 9

33. Milo and Shirley are taking a trip on a cruise ship for their 20th wedding anniversary. They believe they made it to this milestone because they know each other so well. During the trip, they take part in a game show where they find out they don't know each other as well as they thought. However, they still maintain they are very much in tune with the other's needs and thoughts. This is an example of

A) the availability heuristic.

B) belief perseverance.

*Correct. Belief perseverance is the tendency to stick to our original beliefs even when evidence contradicts them.*

C) the hindsight bias.

*Incorrect. The hindsight bias occurs when we are certain that we knew what was going to occur only after the event took place.*

D) the representativeness heuristic.

Answer: B

 Page Ref: 9

34. Recall from your text that researchers gave students false feedback about their abilities to distinguish between false and real suicide notes. At the conclusion of the study, the researchers informed the students that their feedback was in no way related to their actual performance. However, on a subsequent task where the students had to estimate their performance on a similar task, they used this false feedback to guide their estimates. This is an example of

A) belief perseverance.

B) the confirmation bias.

C) the hindsight bias.

D) overconfidence.

Answer: A

 Page Ref: 9

35. Barry believes that male dogs are better at protection than female dogs. He does research on training exercises that he believes proves males are better in K9 training. When presented with evidence that shows female dogs are just as competent as male dogs, he continues to stick to his original opinion, thus demonstrating

A) belief perseverance.

*Correct. Belief perseverance is our tendency to continue believing what we currently believe, despite convincing*

*evidence to the contrary. The example shows Barry’s tendency.*

B) naive realism.

C) analytical thinking.

D) scientific skepticism.

*Incorrect. One of the keys to scientific skepticism is the willingness to be open to all evidence, not just bits of information that support one's own view. Barry’s unwillingness to consider that his original opinion might have been wrong belies scientific skepticism.*

Answer: A

 Page Ref: 9

36. A local mental health facility looks for extra employees for their crisis line on the night of a predicted full moon. Past experience has led them to believe that a full moon increases levels of suicidal behavior. Even though the employees were presented with evidence showing there is no link between suicide and full moons, they focus on their own evidence of past behavior and ignore the current scientific evidence by exhibiting

A) scientific skepticism.

*Incorrect. One of the keys to scientific skepticism is the willingness to be open to all evidence, not just bits of*

*information that support one's own view.The employees’ reliance on their own experiences contradicts the concept*

*of scientific skepticism.*

B) belief perseverance.

*Correct. Belief perseverance is our tendency to continue believing what we currently believe, despite convincing*

*evidence to the contrary. The example shows the employees’ tendency.*

C) critical thinking.

D) hindsight bias.

Answer: B

 Page Ref: 9

37. Sandi is an art major who believes that color affects everything, from how people communicate to their moods. At a recent art show, Sandi discussed this issue with fellow artists who told her that no scientific evidence supported her statements. Sandi still holds to her belief that color affects everything, especially personality, thus demonstrating

A) belief perseverance.

*Correct. Belief perseverance is our tendency to continue believing what we currently believe, despite convincing evidence to the contrary. The example shows Sandi’s tendency.*

B) the confirmation bias.

*Incorrect. The confirmation bias is the tendency to seek out evidence that supports our preexisting beliefs and to*

*neglect contradictory evidence.*

C) analytical thinking.

D) naive realism.

Answer: A

 Page Ref: 9

38. Which of the following categories involves claims that are always unfalsifiable?

A) Metaphysics

B) Pseudoscience

C) Science

D) Popular psychology

Answer: A

 Page Ref: 9, 12

39. Dr. Simmons teaches philosophy and discusses several topics in the course, including religion. Paulo, a student in the class, believes that when he dies, he will be resurrected. Paulo’s claim falls under the area of

A) metaphysics.

*Correct. Metaphysical claims make assertions that are not testable and relate to subjects like the existence of God,*

*the soul, and the afterlife.*

B) science.

C) pseudoscience.

*Incorrect. Assertions or beliefs about topics like God or the afterlife are central to the topic of metaphysics, not pseudoscience.*

D) rational thinking.

Answer: A

 Page Ref: 9

40. Scientist Stephen Jay Gould made which of the following contentions about the relationship between science and religion?

A) Religion and science can coexist, but are generally antithetical to each other.
B) Religion and science are inextricably linked and can never be separated from each other.
C) Where religion exists, science cannot. Where science exists, religion cannot.
D) Religion and science are entirely different and nonoverlapping realms of understanding the world.
Answer: D

 Page Ref: 10

41. Which of the following statements is most consistent with the notion that science should be a “prescription for humility?”
A) “My data are flawless”
B) “But I might be wrong.”

*Correct. The willingness to accept that one's findings might be incorrect is key to the idea that science should be an exercise in humility.*
C) “I’ve proven my hypothesis.”

*Incorrect. As your authors state, the idea of* ***proving*** *a phenomenon is something to be avoided in a science.*

D) “There is no need to research that question because the answer is already clear.”
Answer: B

 Page Ref: 10

42. According to the authors, \_\_\_\_\_\_\_\_ of the claims made by self-help proponents have been scientifically examined.

A) few

B) many

C) none

D) roughly half

Answer: A

 Page Ref: 11

43. The major difference between pseudoscience and science is that

A) pseudoscience addresses different questions than science.

B) pseudoscience is less similar to popular psychology than science is.

C) pseudoscience lacks the safeguards against cognitive biases that characterize science.

D) pseudoscience lacks the general level of public support that characterizes science.

Answer: C

 Page Ref: 11

44. Jan decides to take an online personality quiz to determine her personality characteristics. Though the advice is very useful, Jan should be cautious in believing the results of this inventory because the results

A) are factual.

B) are based on scientific methods.

*Incorrect. In fact many online questionnaires of this type have no basis in science and should only be considered entertainment.*

C) may be part of the misinformation explosion.

*Correct. Despite growth and accessibility of popular psychology, the industry has succumbed to the misinformation explosion, with little control over the quality of untested products.*

D) may lead to better decision making.

Answer: C

 Page Ref: 11

45. \_\_\_\_\_\_\_\_\_\_ refers to a claim or statement that superficially appears to be scientific but is not.

A) Misinformation

B) Anecdotal evidence

C) Pseudoscience

D) Common sense

Answer: C

 Page Ref: 11

46. Imagine that you see the textbook authors on television talking with Larry King about popular psychology. What point are you most likely to hear them make?

A) All information from popular psychology and/or self-help is useless

B) Beware of claims of miracle cures without supporting evidence

*Correct. Remember that extraordinary claims require extraordinary evidence, and miracle cures are the pinnacle of extraordinary claims.*

C) Psychology and medicine often marginalize those with ideas that differ from conventional wisdom

D) Self-help therapies are rigorously tested before people can write books about them

*Incorrect. While some self-help programs are probably effective, a majority of them have not been supported by scientific research.*

Answer: B

 Page Ref: 11, 25

47. Which of the following statements would your authors find the most worrisome?

A) Being open-minded about topics associated with pseudoscience is no big deal.

B) The majority of Americans do not believe in the existence of ghosts or witches.

C) Pseudoscience seems to be so much more interesting and engaging than science.

*Correct. If people believe that untested claims, found in pseudoscience, are more interesting than regular science then they will be likely to follow unproven and untested courses of action.*

D) Science cannot answer all of the questions I am interested in, such as "Why am I here?" or "What is my life's purpose?"

*Incorrect. The recognition that science is imperfect and cannot answer every question is part of the humility that is required to be a scientist.*

Answer: C

 Page Ref: 12

TEXT LO: 1.4 Identify reasons we are drawn to pseudoscience

48. Which sin of pseudoscience is synonymous with stating an unfalsifiable hypothesis or theory?

A) Evasion of peer review

B) Lack of self-correction

*Incorrect. A lack of self correction is a serious problem with pseudoscience, but it is not directly related to the requirement of falsifiability in a theory.*

C) Overreliance on anecdotal evidence

D) Overuse of ad hoc immunizing hypotheses

*Correct. The ad hoc immunizing hypothesis is one that insulate itself from being proven wrong. In order for a hypothesis or theory to be useful, it must be capable of being falsified.*

Answer: D

 Page Ref: 12

49. Which of the following is one of the classic warning signs of a pseudoscience?

A) evasion of peer review.

B) underreliance on anecdotal evidence.

C) an abundance of self-correction.

D) an absence of psychobabble

Answer: D

 Page Ref: 12-14

50. A key characteristic of a pseudoscience is that incorrect theories are

A) discarded.

B) formulated and revised as needed.

C) never corrected or changed.

D) seldom believed by the general public.

Answer: C

 Page Ref: 13

51. Which of the following is found in science but NOT in pseudoscience?

A) Amazing, counterintuitive claims

B) The presence of difficult-to-understand jargon or technical information

*Incorrect. In fact, the more psychobabble jargon that is used, the more pseudoscientific a claim is.*

C) Reliance on anecdotal evidence to support one's theory of human behavior

D) Self-correction of incorrect hypotheses and theories

*Correct. In pseudoscience, hypotheses that are not supported by the data are rarely adjusted. In a science, theories are adapted to the evidence that is gathered about them.*

Answer: D

 Page Ref: 13

52. One evening, when he couldn't sleep, Mr. Bradley turned on the television and saw an infomercial for a new sleep aid. As a critical thinker, Mr. Bradley should be most cautious about this new product if

A) the product had been subjected to an experimental study and the scrutiny of a peer-review process.

B) its makers claim it has been "proven" to induce sleep in 80 percent of test participants.

*Correct. Remember that extraordinary claims without extraordinary evidence are one of the keys to identifying a pseudoscience.*

C) its makers discuss the scientific investigations that have compared it to other effective sleep aids rather than relying on testimonials of those with insomnia.

D) the results of research connect the efficacy of the sleep-aid to other widely accepted scientific findings.

*Incorrect. Providing properly gathered scientific evidence is a key for supporting extraordinary claims.*

Answer: B

 Page Ref: 13

53. Recently, ads have appeared on the radio for some natural herbs that will calm you, increase your sense of well-being, and make you happier in a month’s time. You are sure this is a pseudoscientific claim because it is

A) psychobabble.

B) exaggerated.

*Correct. Exaggerated claims are one of several warning signs of pseudoscience.*

C) anecdotal.

*Incorrect. While these ads may use anecdotal claims from people who say the product work for them, the best answer to this question is that the claims are exaggerated.*

D) hypothetical.

Answer: B

 Page Ref: 13

54. A group of animal behaviorists has discovered several new species of insects in the Amazon jungle. They collect the new species for later study back at the camp. Due to advances in computer technology, they are able to transfer their findings immediately to other researchers studying insects. Their willingness to share these findings with other scientists shows their commitment to

A) critical thinking.

B) falsifiability.

*Incorrect. The willingness to let other people examine your research is called peer review, and it is essential in a science.*

C) peer review.

*Correct.Many warning signs help us to recognize pseudoscience, including lack of peer review. Peer review is necessary for a truly scientific process.*

D) pseudoscience.

Answer: C

 Page Ref: 13

55. A key issue in science is providing methods to help people distinguish between accurate, helpful claims and those that are inaccurate and unhelpful. This problem is exacerbated by which of the following sins of pseudoscience?

A) Lack of review by other (peer) scholars

*Correct. The willingness to let other people examine your research is called peer review, and it is essential in a science.*

B) Exaggerating claims beyond the available evidence

C) Mistaking correlation for causation

D) The use of highly technical terms and information

*Incorrect. The use of highly technical terms and psychobabble does not necessarily suggest that somebody's findings are incorrect. It is, however, commonly used in a pseudoscience to mask the lack of true science.*

Answer: A

 Page Ref: 13

56. According to the authors, one reason to be wary of programs that promise to teach you speed reading techniques in return for money is that such claims do not fit with the available data on information processing and memory. This is consistent with the pseudoscience sin known as

A) absence of connectivity.

*Correct. Collectivity refers to a consistency between different research findings.*

B) evasion of peer review.

C) exaggerated claims.

D) psychobabble.

*Incorrect. The use of psychobabble refers to using complex jargon and terminology that most people would not understand. It is used to mask the absence of true science in a finding.*

Answer: A

 Page Ref: 13

57. Curtis is considering buying a new workout machine that promises weight loss at twice the rate of other machines. When Curtis questioned such a claim with the manufacturer, the customer service representative stated this was a new system and previous research on weight loss was not applicable. This example illustrates which warning sign of pseudoscience?

A) Evasion of peer review

*Incorrect. The lack of connection between existing research and the product being peddled demonstrates a lack of collectivity, not an evasion of peer review.*

B) Absence of connectivity

*Correct. One of the warning signs of pseudoscience is lack of connectivity to other research (i.e., findings that are*

*vastly different than those of previous research on the same topic).*

C) Overreliance on anecdotes

D) Lack of self-correction

Answer: B

 Page Ref: 13

58. Steve and Julie have purchased a program that promises to drastically improve marital relationships in just two weeks. Although the program has not been tested scientifically, they were impressed by the use of scientific phrasing such as “co-dependency,” ”holistic healing,” and “subjective well-being.” This example illustrates which warning sign of pseudoscience?

A) Psychobabble

*Correct. To recognize pseudoscience, one should take care not to be persuaded by fancy terms that don’t really mean anything (psychobabble).*

B) Absence of connectivity

C) Exaggerated claims

*Incorrect. While this program does make some extraordinary claims, its biggest failure is the use of psychobabble to confuse potential consumers.*

D) Lack of self-correction

Answer: A

 Page Ref: 13

59. What is an important limitation of anecdotal evidence in developing scientifically sound treatments or procedures?

A) Anecdotes cannot help to establish cause-effect relationships

B) Anecdotes effectively address the issue of representativeness of the cases

C) Anecdotes are extremely too easy for others to Falsify

D) Anecdotes are generalizable to the population from which the individual giving the anecdote came.

Answer: D

 Page Ref: 13-14

60. Dr. McDonald uses only the testimonies of parents and teachers as support for his treatment of ADHD; this illustrates which warning sign of pseudoscience?

A) Exaggerated claims

*Incorrect. Dr. McDonald's claims that his treatment works are not necessarily exaggerated, but in this case they are only supported by anecdotal evidence coming from parents and teachers.*

B) Lack of self-correction

C) Overreliance on anecdotes

*Correct. Overreliance on anecdotes involves ignoring large-scale studies and instead using testimonies from people who support the researcher’s claim.*

D) Evasion of peer review

Answer: C

 Page Ref: 13-14

61. Pinker (1997) and others have demonstrated that humans display an adaptive predisposition to make order out of disorder and sense out of nonsense. This tendency can account for

A) reliance on confirmation bias.

B) skepticism.

*Incorrect. In fact, scientific skepticism often helps us realize that there is no order in disorder, and there is no sense in nonsense.*

 C) the popularity of pseudoscience.

*Correct. Pseudoscience helps us simplify the world in which we live. It helps us find order in disorder and make sense out of the senseless.*

D) belief perseverance.

Answer: C

 Page Ref: 14

62. Tiffany spends a great deal of time reading self-help books on relationships. She has had several failed relationships and is bewildered by the events. Even though she knows most of these books are pseudoscience, Tiffany is attracted to them because

A) she is comforted by the realization she is not alone.

*Incorrect. While Tiffany may in fact be comforted by the fact that she is not alone, what she is trying to do is come up with a rational explanation for things that don't make sense to her. This is an example of making order out of disorder.*

B) she is trying to make order out of disorder.

*Correct. Pseudoscience helps us simplify the world in which we live.*

C) she suffers from apophenia.

D) she is experiencing pereidolia.

Answer: B

 Page Ref: 14

63. Which principle of critical thinking does anecdotal evidence FAIL to address?

A) Falsifiable claims about the phenomena

*Incorrect. While some anecdotal evidence may in fact be falsifiable, it is rare for that to occur. The best answer to this question however is ruling out rival hypotheses.*

B) The rules of extraordinary claims

C) Parsimonious explanation of the phenomena

D) Ruling out rival hypotheses

*Correct. Anecdotal evidence does not give us the opportunity to consider alternate interpretations of an event.*

Answer: D

 Page Ref: 14, 21-23

64. The term \_\_\_\_\_\_\_\_\_\_ refers to the tendency to perceive meaningful connections among unrelated phenomena.

A) apophenia

B) confirmation bias

C) parsimony

D) interconnectivity

Answer: A

 Page Ref: 14

65. We experience the phenomenon of apophenia when we

A) accept anecdotal evidence in place of scientific evidence.

B) fall victim to erroneous information given to us by others.

C) see a connection between related events.

D) see a pattern where none really exists.

Answer: D

 Page Ref: 14

66. The phenomenon of *apophenia* is an example of an illusory correlation because

A) we accept anecdotal evidence in place of scientific evidence.

B) we fall victim to erroneous information given to us by others.

C) we see a connection between related events.

*Incorrect. When apophenia occurs, we tend to see connections between two unrelated events.*

D) we see a pattern where none really exists.

*Correct. Apophenia is the tendency to perceive meaningful connections among unrelated phenomena.*

Answer: D

 Page Ref: 14

67. According to the discussion about Presidents Lincoln and Kennedy, we often

A) actively seek out parsimonious explanations for complicated problems.

*Incorrect. In fact, the most parsimonious explanation for the similarities between Lincoln and Kennedy is that they were coincidences.*

B) chalk up coincidences as being due to chance rather than to supernatural events.

C) overestimate how unusual certain patterns of coincidental information really are.

*Correct. Because there were several commonalities between these two presidents, we tend to believe that those commonalities suggests some underlying meaning that does not exist. We also tend to ignore all of the differences between them.*

D) prefer skepticism to conspiracy theory explanations about presidential assassinations.

Answer: C

 Page Ref: 14-15

68. Once a guest appeared on *The Tonight Show*, with former host Johnny Carson, and showed her collection of potato chips that resembled famous celebrities or historical figures. One example was a potato chip that was said to resemble Abraham Lincoln. In actuality, this guest was providing an example of

A) apophenia.

*Incorrect. Apophenia is the tendency to perceive meaningful connections among unrelated phenomena.*

B) belief perseverance.

C) the confirmation bias.

D) pareidolia.

*Correct. Pareidolia occurs when we see something in an ambiguous figure that is not really there.*

Answer: D

 Page Ref: 15

69. Will and Kristyn are laying on a hill looking up at the stars. Kristyn looks over and sees the face of a man appearing on the moon. She fails to consider that this face is really a combination of craters on the moon's surface and her own perceptual abilities creating meaning. She has fallen victim to

A) apophenia.

*Incorrect. Apophenia is the tendency to perceive meaningful connections among unrelated phenomena.*

B) belief perseverance.

C) the confirmation bias.

D) pareidolia.

*Correct. Pareidolia occurs when we see something in an ambiguous figure that is not really there.*

Answer: D

 Page Ref: 15

70. Scientific investigation has identified that "The Hot Hand" in basketball is

A) dependent on the player's skill level.

B) an illusion

C) a question that cannot be answered through science.

D) a reality.

Answer: B

 Page Ref: 16

71. Despite the fact that scientific research has found no support or basis for the belief of "the hot hand" in baseball, basketball, or golf, the idea still persists among athletes, sports commentators, and fans. This is a classic example of

A) belief perseverance.

B) gullibility.

C) the hindsight bias.

D) scientific illiteracy.

Answer: A

 Page Ref: 16

72. According to the tenets of terror management theory, why do we often adopt beliefs in the paranormal?

A) Mortality salience encourages experiential and other forms of illogical reasoning

B) Mortality salience encourages higher levels of belief in the unknowable

C) Mortality salience encourages reassuring cultural perspectives, like the existence of heaven or the afterlife

*Correct. Mortality salience helps insulate us from the fear of that which we do not know, specifically what happens to us after we die.*

D) Mortality salience encourages religious faith or spirituality

*Incorrect. Although religious and spiritual doctrine does give us some indication of what we should believe about the afterlife, mortality salience is not specifically linked to a particular religious or spiritual doctrine.*

Answer: C

 Page Ref: 17

73. Traps in thinking that can lead to mistaken conclusions are called

A) confirmation biases.

B) experiential thought patterns.

C) logical fallacies.

D) systematic information biases.

Answer: C

 Page Ref: 17

74. Talk show pundits often take extreme positions and use language that is designed to anger and upset persons who AGREE with the pundit's position. These strong, negative feelings are likely to encourage the

A) bandwagon fallacy.

B) either-or fallacy.

*Incorrect. The either-or fallacy is the erroneous belief that there are only two possible answers to a given question.*

C) emotional reasoning fallacy.

*Correct. The emotional reasoning fallacy occurs when we use our emotions as guides for evaluating the validity of a claim.*

D) not me fallacy.

Answer: C

 Page Ref: 17-18

75. Imagine that a researcher conducts a study in which the participants are either strongly for or strongly against allowing openly gay soldiers to serve in the military. The researcher presents participants with a policy that is supposedly endorsed by an authority with views similar to their own. What are the results of such a study likely to indicate?

A) Participants are most likely to be convinced by a policy that is dissimilar to their own ideas

*Incorrect. In fact the authority figures tend to lose their ability to persuade us of things when they present us with views that contradict our own. This tends to occur whether or not our views are accurate.*

B) Participants are most likely to be convinced by a policy that is similar to their own ideas

*Correct. Consistent with the concept of the confirmation bias, we tend to put a better faith in authority figures who tell us views that are consistent with our own beliefs.*

C) Participants are most likely to be convinced only by a policy with strong evidence

D) Participants are unlikely to be convinced on the basis on authority alone

Answer: B

 Page Ref: 18

76. You are asked by a friend to tell him whether a color is either black or white. When you look at it, you think it is neither of these two extremes but is more a shade of gray. Your friend's question is an example of the \_\_\_\_\_\_\_\_ fallacy.

A) bandwagon

B) either-or

*Correct. The either-or fallacy is the erroneous belief that there are only two possible answers to a given question.*

C) emotional reasoning

*Incorrect. The emotional reasoning fallacy occurs when we use our emotions as guides for evaluating the validity of a claim.*

D) not me

Answer: B

 Page Ref: 18

77. Assuming that something is so simply because a teacher or religious authority said it is so, is an example of

A) appeal to authority fallacy.

B) circular reasoning fallacy.

C) hasty generalization fallacy.

D) naturalistic fallacy.

Answer: A

 Page Ref: 18

78. Which of the following logical fallacies is like a self-serving bias because we assume they apply to other people's information processing more often than our own?

A) Bandwagon fallacy

B) Either-or fallacy

*Incorrect. The either-or fallacy is the erroneous belief that there are only two possible answers to a given question.*

C) Emotional reasoning fallacy

D) Not me fallacy

*Correct. The not me fallacy is the error of believing we are immune from thinking errors that affect others.*

Answer: D

 Page Ref: 19

79. An important point from the authors' discussion on why people need to care about the dangers of pseudoscience is that

A) harm rarely results from pseudoscientific beliefs or treatments.

B) a lack of critical thinking may lead to poor decisions that affects one's personal life, community, and/or their child's schooling.

*Correct. A lack of critical thinking and reasonable valuation of a claim can have effects that impact multiple levels of society.*

C) people are often quite accurate and unbiased in their day-to-day decision making.

*Incorrect. In fact your chapter presents quite a few examples of how people tend to be very inaccurate and biased in their decision-making.*

D) quackery and pseudoscience are especially easy to detect without exposure to critical thinking or skepticism.

Answer: B

 Page Ref: 19-20

80. \_\_\_\_\_\_\_\_\_\_ is the approach of evaluating all claims with an open mind but insisting on persuasive evidence before accepting them.

A) Metaphysics

B) Pseudoscience

C) Scientific skepticism

D) Empiricism

Answer: C

 Page Ref: 20

TEXT LO: 1.5 Identify the key features of scientific skepticism

81. Scientific skepticism requires that any claim is met with

A) an open mind.

B) regard for authority.

C) healthy resistance to persuasion.

D) hypothetical aptitude.

Answer: A

 Page Ref: 20

TEXT LO: 1.5 Identify the key features of scientific skepticism

82. A *skeptic* is one who

A) accepts claims on the basis of persuasive scientific evidence.

*Correct. Scientific skepticism is marked by the demand for supportive evidence of a claim.*

B) accepts claims only from trusted authority figures.

*Incorrect. Scientific skepticism requires us to question even authority figures’ claims, but to do so with an open mind.*

C) accepts claims only on the basis of logical reasoning.

D) accepts claims only on the basis of their popularity with the public.

Answer: A

 Page Ref: 20

TEXT LO: 1.5 Identify the key features of scientific skepticism

83. According to the authors, a *skeptic* is someone who

A) is close-minded when evaluating evidence.

B) evaluates all claims with an open mind and insists on evidence before accepting a claim.

C) is dismissive of any evidence that contradicts his or her beliefs.

D) seeks out evidence that is inconsistent with a theory he or she doesn't believe in.

Answer: B

 Page Ref: 20

TEXT LO: 1.5 Identify the key features of scientific skepticism

84. An individual who accepts claims only on the basis of supportive scientific evidence is a(n)

A) scientific skeptic

*Correct. Scientific skepticism involves evaluating claims with an open mind, but insisting on persuasive evidence before accepting them. Claims should not be accepted on the basis of authority or popularity, and our logical reasoning is often erroneous.*

B)authority figure

*Incorrect. Scientific skepticism requires us to question even authority figures’ claims, but to do so with an open mind.*

C) peer reviewer

D) pseudoscientist

Answer: A

 Page Ref: 20-21

TEXT LO: 1.5 Identify the key features of scientific skepticism

85. Dr. Wolpe designs an experimental test of his theory of aggression against a competing theory. After conducting the appropriate statistical tests, he finds that the data are better explained by the competing theory. His willingness to accept the evidence that another theory is superior is a characteristic of

A) dogmatism.

*Incorrect. A dogmatic view of the world is not open to alternate explanations for various phenomena.*

B) gullibility.

C) pathological skepticism.

D) scientific skepticism.

*Correct. Scientific skepticism requires us to be open to all possibilities, including the possibility that our own theories are not accurate.*

Answer: D

 Page Ref: 20-21

TEXT LO: 1.5 Identify the key features of scientific skepticism

86. After recently reviewing her research results, Dr. Junger is willing to keep an open mind about her results and other research results on the same evidence. She is displaying an attitude of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ when evaluating claims.

A) closed-mindedness

B) pathological skepticism

C) scientific skepticism

*Correct. Scientific skepticism involves evaluating claims with an open mind, but insisting on persuasive evidence before accepting them. Dr. Junger does both.*

D) belief perseverance

*Incorrect. If Dr. Junger is willing to accurately evaluate evidence that shows her as the errors of her hypotheses, then she has not fallen prey to the danger of belief perseverance.*

Answer: C

 Page Ref: 20-21

TEXT LO: 1.5 Identify the key features of scientific skepticism

87. According to the authors, one reason we must sometimes look to authorities is because we have difficulty evaluating claims of human behavior due to

A) lack of time.

*Correct. The general population often doesn’t possess the expertise, time, or resources to evaluate claims on our own.*

B) biases.

C) susceptibility to pseudoscience.

D) an inability to think hypothetically.

*Incorrect. It's not our inability to think hypothetically that causes us to look to authority figures. It is often our lack of time, resources, and expertise.*

Answer: A

 Page Ref: 21

TEXT LO: 1.5 Identify the key features of scientific skepticism

88. Time, expertise, and resources are all obstacles that

A) diminish skepticism.

B) diminish metaphysical claims.

C) increase reliance on authorities.

*Correct. The general population often doesn’t possess the expertise, time, or resources to evaluate claims on our own.*

D) increase reliance on empiricism.

*Incorrect. These obstacles actually decrease our reliance on empiricism.*

Answer: C

 Page Ref: 21

TEXT LO: 1.5 Identify the key features of scientific skepticism

89. A key aspect of scientific skepticism is

A) critical thinking.

B) dogmatic belief.

C) narrow-mindedness.

D) reliance on authority.

Answer: A

 Page Ref: 21

TEXT LO: 1.5 Identify the key features of scientific skepticism

90. In the natural world, there often are many different factors associated with the occurrence of a particular outcome. Therefore it is important that we as critical thinkers \_\_\_\_\_\_\_\_ whenever possible.

A) create unfalsifiable theories

*Incorrect. Theories that are unfalsifiable are not valuable. In order for a theory to have value it must be capable of being demonstrated to be wrong.*

B) propose complex statements of causation

C) remember that correlation equals causation

D) rule out rival hypotheses

*Correct. Our willingness to eliminate alternate explanations for a phenomenon is what is at play here.*

Answer: D

91. Developmental psychologists are trying to evaluate different explanations for the effects of poor parenting on behavior problems in children. One important scientific thinking principle that the psychologists should keep in mind is to

A) rule out rival hypotheses using additional research.

*Correct. One principle of scientific thinking is ruling out rival hypotheses using additional research.*

B) accept the most popular explanation even if it competes with other explanations.

C) accept only those explanations which are unfalsifiable.

D) develop their own explanation and exclude all others.

*Incorrect. In order for a theory to be useful, it must explore and consider all other explanations for the data.*

Answer: A

92. Which of these is a principle of scientific thinking?

A) Hypothetico-deductive reasoning

B) Occam’s Razor

C)Variation

D) Conventional morality

Answer: A

Page Ref:21-26

93. A claim must be falsifiable in order to be useful. However, we also need this claim to

A) contradict the available body of evidence.

B) be detailed and, when necessary, complex in its explanation of the evidence.

C) be replicated by others.

D) be unique to a specific sample without overgeneralizing to a larger population

Answer: C

Page Ref:21-26

94. A basic error that nearly all psychology students make is to assume that

A) correlation is causation.

B) good theories make safe, not risky, predictions.

C) research questions or theories must be falsifiable.

D) simple theories are preferred to complex ones.

Answer: A

 Page Ref: 23

95. In opening her new private preschool, Mrs. Alvarez plans to only accept students who come from upper-middle income families, because she read that students who perform well come from higher socioeconomic families. Mrs. Alvarez is making the \_\_\_\_\_\_\_\_ error of critical thinking.

A) Occam’s Razor.

*Incorrect. Occam’s Razor is a concept that suggests that the simplest explanation for an event is usually the correct one.*

B) extraordinary claims.

C) confirmation bias.

D) correlation vs. causation

*Correct. In scientific thinking, we must remember that correlation is not causation; the correlation-causation fallacy is the error of assuming that because one thing is associated with another, it must cause the other.*

Answer: D

 Page Ref: 23

96. Researchers in Taiwan have found that contraceptive use was strongly related to the number of electrical appliances (i.e., toaster, fans, etc.) in the home. What is the best explanation for this result?

A) The researchers made a mistake and no one else would ever replicate this finding

B) Contraceptive use causes people to purchase larger numbers of electrical appliances

*Incorrect. It is important to remember that correlation does not indicate causation.*

C) Having many electrical appliances causes people to use contraceptive devices

D) A third variable, such as educational level, is associated with each and produces the observed relationship

*Correct. This supports the critical thinking principle of correlation vs. causation.*

Answer: D

 Page Ref: 23

97. Suppose that a therapist notices several clients with anxiety disorders also demonstrate symptoms consistent with major depressive disorder. Why should she be cautious in making the assumption that experiencing an anxiety disorder causes one to experience major depressive disorder?

A) Her observations may not be replicated by other researchers.

B) The relationship may really be in the opposite direction; having major depressive disorder causes one to experience anxiety disorders.

*Incorrect. While this might be true, it is impossible to know the direction of cause as a result of a correlational observation.*

C) The relationship may really be the result of a third variable such as lack of personal control.

*Correct. This supports the critical thinking principle of correlation vs. causation.*

D) The observed relationship creates an unfalsifiable research question.

Answer: C

 Page Ref: 23

98. A major problem with commonsense proverbs is that they often coexist with their complete opposite. This violates which principle of critical thinking?

A) Extraordinary claims require extraordinary evidence

B) Falsifiability

*Correct. Because the proverbs are true no matter which way you present them, they cannot be demonstrated to be wrong. This violates the critical thinking principle of falsifiability.*

C) Occam's Razor

*Incorrect. Occam’s Razor is a concept that suggests that the simplest explanation for an event is usually the correct one.*

D) Replicability

Answer: B

 Page Ref: 23-24

99. An astute observer of human nature should state research questions in a manner that leads either to their being supported or refuted by the available evidence. This is the critical thinking principle of

A) falsifiability.

*Correct. In order for a theory to be valuable, it must be capable of being demonstrated to be wrong*

B) Occam’s Razor.

*Incorrect. Occam’s Razor is a concept that suggests that the simplest explanation for an event is usually the correct one.*

C) replicability.

D) ruling out rival hypotheses.

Answer: A

 Page Ref: 23-24

100. Philosopher Karl Popper would be most impressed with a hypothesis if it made a(n)

A) irrefutable prediction.

B) falsifiable prediction.

C) safe prediction.

D) unfalsifiable prediction.

Answer: B

 Page Ref: 23-24

101. For a scientific claim to be meaningful, it must be capable of being disproven. This is the critical thinking principle of

A) empirical investigation.

B) falsifiability.

C) skepticism.

D) constructive alternativism.

Answer: B

 Page Ref: 23-24

102. Astrologers, before attempting to demonstrate their abilities, often try to explain away inaccurate predictions. Such excuses violate the critical thinking principle of

A) falsifiability.

*Correct. Claims must be capable of being disproven if they are to be of value. This is the main theme of the principle of falsifiability.*

B) skepticism.

C) Occam’s Razor.

*Incorrect. Occam’s Razor is a concept that suggests that the simplest explanation for an event is usually the correct one.*

D) replicability.

Answer: A

 Page Ref: 23-24

103. A researcher published an article proposing a theory that body language is central to human communication. He keeps in mind that his theory may or may not be supported by the evidence, and may be proved wrong. The researcher’s perspective illustrates the scientific thinking principle of

A) falsifiability.

*Correct. As one of the principles of scientific thinking, falsifiability is the requirement that claims can be disproved (i.e., that there is some conceivable finding that could disprove it).*

B) replicability.

C) extraordinary claims.

D) Occam’s Razor.

*Incorrect. Occam’s Razor is a concept that suggests that the simplest explanation for an event is usually the correct one.*

Answer: A

 Page Ref: 23-24

104. If a person were to say that a scientific finding was replicated, he or she would be saying that the finding was

A) accurate and truthful.

B) capable of being consistently duplicated.

C) not the result of correlation.

D) parsimonious and straightforward.

Answer: B

 Page Ref: 24

105. Initial reports in the media that listening to classical music made students more intelligent were followed by several failed attempts to reproduce the effects in the laboratories of other researchers. This is an example of the failure to

A) accurately communicate.

B) achieve parsimony.

C) correlate.

*Incorrect. A correlation describes a relationship between variables. It is not related to a failure to reproduce other researcher’s results.*

D) replicate.

*Correct. Replication refers to repeating somebody's research and coming up with the same, or at least similar, findings.*

Answer: D

 Page Ref: 24

106. If a researcher's initial findings that a particular relationship or effect exists are not reliably demonstrated by other independent researchers, how are these initial findings thought of in the discipline of psychology?

A) As a deliberate, unethical attempt to falsify one's data

B) As a one-time fluke in research

*Correct. If findings cannot be repeated, they are usually inaccurate.*

C) As a hoax or scam

*Incorrect. The inability to replicate somebody's findings does not suggest that they were engaging in a hoax or scam. It does, however, suggest that their results were not accurate.*

D) As a real phenomenon that exists for some gifted people but not for everyone

Answer: B

 Page Ref: 24

107. A group of teachers develops a math curriculum to help students increase their scores on required tests in math. The teachers find promising results with the students in their school, so they develop a plan to test the curriculum in all of the schools in their county. This plan shows that the teachers recognize the importance of

A) proving that their theory is falsifiable.

B) demonstrating their pathological skepticism.

*Incorrect. There is no such concept as pathological skepticism mentioned in your chapter.*

C) showing that required math tests are invalid.

D) replicating the original findings to increase confidence in them.

*Correct. Replicability means that a study’s findings can be consistently duplicated. Replicated results increase confidence in research findings.*

Answer: D

 Page Ref: 24 -25

108. A group of scientists is attempting to verify recent data published on the chemical composition of tears and the presence of Alzheimer’s disease. This illustrates the critical thinking principle of

A) ruling out rival hypotheses.

B) falsifiability.

C) replicability.

*Correct. Replicability is the independent duplication of research results.*

D) Occam’s Razor.

*Incorrect. Occam’s Razor is a concept that suggests that the simplest explanation for an event is usually the correct one.*

Answer: C

 Page Ref: 24 -25

109. Suppose Dr. Honeydew is proposing a theory of attraction that posits that "Opposites Attract." Most of the available evidence suggests that "Birds of a Feather Flock Together" (i.e., similarities attract) rather than opposites attract. For his theory to be accepted by the scientific community, Dr. Honeydew will need to

A) adhere to the principle of parsimony in his theoretical explanation.

B) construct a falsifiable theory of attraction.

C) demonstrate the replicability of his initial findings.

*Incorrect. Eventually Dr. Honeydew will have to demonstrate the replicability of his findings, but initially he'll have to provide extraordinary evidence to support his extraordinary claims.*

D) supply extraordinary evidence to support his extraordinary claim.

*Correct. When unusual or extraordinary claims are made, they must be backed up by extraordinary evidence. This is a major principle of critical thinking.*

Answer: D

 Page Ref: 25

110. According to your authors, one of the bottom lines of scientific thinking is

A) if a claim is extraordinary, we should trust what the authorities say.

*Incorrect. Your authors point out that a key to critical thinking is that extraordinary claims must be supported by extraordinary evidence. The word of an authority figure is not considered extraordinary evidence.*

B) if a claim runs counter to what we already know, we can accept it if it appears in a peer-reviewed journal.

C) if a claim runs counter to what we already know, it should be supported by extraordinary evidence.

*Correct. Extraordinary claims require extraordinary evidence.*

D) if a claim contradicts what we already know, we should disregard it even if it appears in a scientific journal.

Answer: C

 Page Ref: 25

111. Logical simplicity (parsimony) is the notion behind

A) skepticism.

B) Occam’s Razor.

C) metaphysical claims.

D) pseudoscience.

Answer: B

 Page Ref: 25 -26

112. Residents of a small town on the gulf coast of Florida reported numerous UFO sightings. Military personnel eventually disclosed that they had been running tests on a new missile over the open waters, which would account for the strange lights the local people were witnessing. Which critical thinking principle does this example best demonstrate?

A) Occam’s Razor

*Correct. Occam’s Razor holds that simpler explanations for a phenomenon are more often right than wrong.*

B) Extraordinary claims

C) Ruling out rival hypotheses

D) Falsifiability

*Incorrect. The principle of falsifiability suggests that in order for theory to be valuable, it must be capable of being demonstrated to be incorrect.*

Answer: A

 Page Ref: 25-26

113. Using the criteria of Occam's Razor, a good theory is one that is the \_\_\_\_\_\_\_\_ explanation for the available data.

A) most complex

*Incorrect. In fact, Occam's razor suggests exactly the opposite. It says that the simplest explanation for a phenomenon is usually the correct explanation.*

B) most popular

C) most conventional

D) most simple

*Correct. Occam’s Razor holds that simpler explanations for a phenomenon are more often right than wrong.*

Answer: D

 Page Ref: 25-26

114. A key characteristic of a good scientific theory is that it is a simple explanatory device. This key characteristic is explained as the critical thinking principle of

A) falsifiability.

*Incorrect. The principle of falsifiability suggests that in order for theory to be valuable, it must be capable of being demonstrated to be incorrect.*

B) Occam's Razor.

*Correct. Occam’s Razor is a concept that suggests that the simplest explanation for an event is usually the correct one.*

C) replication.

D) ruling out rival hypotheses.

Answer: B

 Page Ref: 25-26

115. According to Occam’s Razor, evaluation of psychological phenomena demands the most \_\_\_\_\_\_\_\_ explanation to account for the available data.

A) complex

*Incorrect. In fact, Occam's Razor suggests exactly the opposite. It says that the simplest explanation for a phenomenon is usually the correct explanation.*

B) popular

C) conventional

D) simple

*Correct. Occam’s Razor states that when two explanations account for a set of findings equally well, we should generally choose the one that is simpler.*

Answer: D

 Page Ref: 25-26

116. Occam's Razor is another name for what critical thinking principle?

A) Correlation differing from causation

B) Hume's dictum

C) Principle of falsifiability

D) Principle of parsimony

Answer: D

 Page Ref: 25-26

117. The key take-home message from the author's discussion of crop circles is that

A) aliens or some form of extraterrestrial being has been trying to communicate with humans for hundreds of years.

B) the cause of some real-world events are unexplainable and unknowable.

*Incorrect. While it may be true that some questions cannot currently be explained or answered, the crop circles are demonstrated neatly by the principle of Occam's razor. In this case, the simplest explanation is that the crop circles were a hoax.*

C) critical thinkers must select the simpler of two claims that fit with the available evidence.

*Correct. Occam’s Razor states that when two explanations account for a set of findings equally well, we should generally choose the one that is simpler.*

D) hoaxters often impede scientific progress into the understanding of unexplainable events like the English crop circles.

Answer: C

 Page Ref: 25-26

118. Psychology was once similar to which of the following disciplines?

A) Biology

B) Journalism

C) Philosophy

D) Theology

Answer: C

 Page Ref: 27

119. What individual is often credited with establishing the first psychological laboratory, thus establishing psychology as an experimental science?

A) Sigmund Freud

B) William James

C) John Watson

D) Wilhelm Wundt

Answer: D

 Page Ref: 27

120. Introspection requires

A) metaphysical experiences.

B) self-skepticism about experiences.

C) empiricism.

D) reflection on the self.

Answer: D

 Page Ref: 27

121. What early psychologist was most concerned with developing answers to questions about our conscious mental experience?

A) Sigmund Freud

B) Joseph Jastrow

C) E.B. Titchener

D) John B. Watson

Answer: C

 Page Ref: 29

122. E. B. Titchener founded which perspective of psychology?

A) Cognitivism

B) Functionalism

C) Structuralism

D) Psychoanalysis

Answer: C

 Page Ref: 29

123. B. F. Skinner is most associated with which perspective?

A) Cognitivism

B) Behaviorism

C) Functionalism

D) Psychoanalysis

Answer: B

 Page Ref: 29

124. Behaviorism is associated with which two leading figures?

A) John Watson and B. F. Skinner

B) Jean Piaget and Ulric Neisser

C) William James and Charles Darwin

D) Sigmund Freud and E. B. Titchener

Answer: A

 Page Ref: 29

125. What early American psychologist yearned to create a periodic table of the elements of consciousness?

A) Sigmund Freud

B) William James

*Incorrect. Not only did James not think that this sort of endeavor was possible, he did not even feel that it would be valuable.*

C) B. F. Skinner

D) Edward Titchener

*Correct. Titchener, a student of Wundt’s, wanted to create a way of categorizing the human conscious experience.*

Answer: D

 Page Ref: 29

126. The lasting contribution of the psychological school of thought known as structuralism is

A) its concern with understanding the adaptive purposes of consciousness.

B) the importance it placed on systematic observation in studying consciousness.

*Correct. Structuralism embraced the concept of introspection, or systematic observation of one's own psychological processes.*

C) its concern with developing a scientific model of human learning.

D) its findings that underscored the importance of unconscious mental processes in daily life.

*Incorrect. The school of psychological thought that emphasize the unconscious was the psychoanalytic school.*

Answer: B

 Page Ref: 29

127. Suppose you were one of the early graduate students in the newly developed field of psychology. Your mentor is interested in discovering the answers to questions like, "Why is the ability to forget helpful?" "How do emotions assist us in social situations?" and "Why is self-presentation a useful technique for gaining social rewards?" Your mentor's approach is most consistent with the \_\_\_\_\_\_\_\_ perspective.

A) behaviorist

B) functionalist

*Correct. The purpose of psychological phenomena was the primary concern for the functionalists.*

C) psychoanalytic

D) structuralist

*Incorrect. The structuralists were more concerned with the makeup, or structure, of consciousness than with its function or purpose.*

Answer: B

 Page Ref: 30

128. What psychological school of thought was most concerned with the influence of the general principles of learning on an organism's or a person's actions?

A) Behaviorism

*Correct. Behaviorism is founded on the principles of learning, including classical and operant conditioning and observational learning.*

B) Cognitivism

*Incorrect. The cognitists were more interested in our intrapsychic interpretation of events, rather than focusing on the principles of learning.*

C) Psychoanalysis

D) Structuralism

Answer: A

 Page Ref: 30

129. Uncovering the general laws of learning that explain all behaviors, especially observable behaviors, is the goal of which perspective?

A) Psychoanalysis

B) Behaviorism

C) Functionalism

D) Structuralism

Answer: B

 Page Ref: 30

130. You are listening in on a discussion among a group of psychology majors. One major says that the field will move forward only if we use objective methods for understanding the principles that guide human actions. This statement is most consistent with

A) behaviorism.

*Correct. Staunch behaviorists believe that the science of psychology should only focus on that which can be observed and measured.*

B) functionalism.

C) psychoanalysis.

*Incorrect. Psychoanalysis focuses largely on the unconscious, something that cannot be objectively measured.*

D) structuralism.

Answer: A

 Page Ref: 30

131. A classmate tells you the following, "It's not how a teacher answers your question that matters but how you interpret his or her attempt at answering your question that leaves you satisfied or unsatisfied with his or her answer." This statement fits most closely with ideas from the school of thought known as

A) behaviorism.

B) cognitivism.

*Correct. The cognitive school of thought suggests that it is our interpretation of things that happen to us that matters.*

C) psychoanalysis.

*Incorrect. The psychoanalytic school of thought focuses on unconscious processes and the way they impact us.*

D) structuralism.

Answer: B

 Page Ref: 31

132. The key to understanding human behavior, according to Sigmund Freud, was to focus on \_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_ level of the human mind.

A) external factors; conscious

B) external factors; unconscious

C) internal psychological processes; conscious

D) internal psychological processes; unconscious

Answer: D

 Page Ref: 31

133. Sigmund Freud was a leading figure in which perspective of psychology?

A) Cognitivism

B) Behaviorism

C) Functionalism

D) Psychoanalysis

Answer: D

 Page Ref: 31-32

134. In which subfield of psychology did most women earn their Ph.D.s in 2005?

A) clinical psychology
B) cognitive psychology
C) developmental psychology
D) feminist psychology

Answer: C

 Page Ref: 32

TEXT LO: 1.8 Describe different types of psychologists and identify what each of them does

135. Psychologists are most frequently found working

A) in K-12 schools.

B) for a governmental agency.

C) in self-employed, clinical practice.

D) at universities and 4-year colleges.

Answer: D

 Page Ref: 32

TEXT LO: 1.8 Describe different types of psychologists and identify what each of them does

136. Nico is meeting with his academic adviser. He wishes to pursue a career where he'll work to diagnose and treat mental disorders. Nico aspires to be a(n)

A) clinical psychologist.

*Correct. The evaluation, diagnosis, and treatment of mental disorders is the key responsibility of a clinical psychologist.*

B) experimental psychologist.

C) forensic psychologist.

*Incorrect. Forensic psychologists work in prisons, jails, and other settings to assess and diagnose inmates and assist with their rehabilitation and treatment.*

D) school psychologist.

Answer: A

 Page Ref: 33

TEXT LO: 1.8 Describe different types of psychologists and identify what each of them does

137. A \_\_\_\_\_\_\_\_\_\_ examines the physiological bases of behavior in animals and humans.

A) clinical psychologist

B) school psychologist

C) biopsychologist

D) forensic psychologist

Answer: C

 Page Ref: 33

TEXT LO: 1.8 Describe different types of psychologists and identify what each of them does

138. A \_\_\_\_\_\_\_\_\_\_ works in prisons, jails, and other settings to assess inmates and assist in rehabilitation.

A) clinical psychologist

B) school psychologist

C) biopsychologist

D) forensic psychologist

Answer: D

 Page Ref: 33

TEXT LO: 1.8 Describe different types of psychologists and identify what each of them does

139. All types of psychology involve

A) interactions between patients and therapists.

B) replicating what is already known via common sense.

C) treating people's behavioral and emotional problems.

*Incorrect. In fact, most of the subfields of psychology to not deal directly with people who suffer from behavioral and emotional problems.*

D) the use of scientific methods.

*Correct. Despite the fact that psychology has many different variations of job roles, they are all joined by their reliance on science.*

Answer: D

 Page Ref: 34

TEXT LO: 1.8 Describe different types of psychologists and identify what each of them does

140. Imagine that you were a psychology professor lecturing on the nature-nurture debate in 1920. You would have likely emphasized the importance of \_\_\_\_\_\_\_\_. Now imagine that you are a psychology professor lecturing on the same topic today. You would be likely to emphasize the importance of \_\_\_\_\_\_\_\_.

A) nature; the interaction of nature and nurture

*Incorrect. The first part of this answer is incorrect, because earlier models suggested that we are born a blank slate and are a result of our environmental influences. The second half of this answer is correct.*

B) nurture; the interaction of nature and nurture

*Correct. Earlier models suggested that we are born a blank slate, and whatever we become is a result of our environment. More recent models recognize the interaction of both genetic and environmental factors.*

C) nurture; nature

D) nature; nurture

Answer: B

 Page Ref: 34

141. Evolutionary psychology

A) provides easily testable hypotheses.

B) focuses on animal behavior.

C) applies Darwin's theory of natural selection.

D) has solved the nature-nurture debate.

Answer: C

 Page Ref: 34

142. With its concern on the adaptive functions provided by the various psychological characteristics, evolutionary psychology is most like what early psychological school of thought?

A) Behaviorism

*Incorrect. While behaviorism might have been slightly influenced by evolutionary psychology, the best answer to this question is functionalism.*

B) Functionalism

*Correct. The theories of Charles Darwin and evolutionary psychology were most salient to the school of thought known as functional as him.*

C) Psychoanalysis

D) Structuralism

Answer: B

 Page Ref: 34

143. With its concern on the adaptive functions provided by the various psychological systems, evolutionary psychology is most like what early psychological school of thought?

A) Behaviorism

B) Functionalism

*Correct. Functionalism and evolutionary psychology have in common the focus on the adaptive purpose of our behavior and mental processes. In fact, those functions helped our species better adapt to and survive in the environment.*

C) Psychoanalysis

D) Structuralism

*Incorrect. Structuralism focused on the makeup, or structure, of the human mind. The functionalism focused on the adaptive purposes of various psychological events.*

Answer: B

 Page Ref: 34-35

144. Perhaps you’ve seen the movie The Lion King. Two brother lions were at the center of the plot, Scar and Mufasa. Scar was weak, thin, and rather lanky. Mufasa was strong, muscular, and had a very dominant presence. Because Mufasa had the qualities and traits that would help him survive and reproduce at a higher rate than his brother, biologists would say that he had a higher level of

A) androgen

*Incorrect. Androgen is a male hormone, and while Mufasa may have had more of it, it is not the best answer to this question.*

B) drift

C) genetics

D) fitness

*Correct. These skills that help with survival and reproductive success fall under the quality called fitness.*

Answer: D

 Page Ref: 35

145. Biologists refer to \_\_\_\_\_\_\_ as the extent to which a trait increases the chances that organisms that possess this trait will survive and reproduce at a higher rate than competitors who lack it.

A) instinct
B) fitness
C) drift
D) heritability
Answer: B

 Page Ref: 35

146. Which of the following ideas is the most compelling evidence *agains*t the idea of free will?

A) Most of people's behavior is deliberate and controlled

*Incorrect. If this was the case, then it would be evidence for the idea of free will.*

B) People often lack direct access to the causes of their behavior

*Correct. The idea that people often do things without truly knowing why is counterevidence to the concept of free will.*

C) Recent brain imaging studies have shown that readiness potential and conscious intention to behave co-occur

D) We select when, where, and how to assert our option to engage in one behavior rather than in another

Answer: B

 Page Ref: 35

147. Which of the following psychologists would be most likely to argue that free will is something that does not truly exist, and that we are simply unaware of the environmental influences that affect our behaviors at any given moment?

A) B. F. Skinner
B) Sigmund Freud
C) Wilhelm Wundt
D) Mihaly Csikszentmihalyi
Answer: A

 Page Ref: 35

148. \_\_\_\_\_\_\_\_\_\_ research examines how the mind works, then \_\_\_\_\_\_\_\_\_\_ research examines how we can use the former to solve real-world problems.

A) Simple; formal

B) Applied; basic

C) Basic; applied

D) Formal; applied

Answer: C

 Page Ref: 36

TEXT LO: 1.10 Describe how psychological research affects our daily lives

149. Brandon is an industrial-organizational psychologist who has been hired by a large hotel chain to determine why their turnover rate is so high for their maids. This is an example of \_\_\_\_\_\_\_\_ research.

A) applied

*Correct. Applied research examines how we can use basic research to solve real-world problems.*

B) basic

*Incorrect. Basic research examines how the mind works, but does not directly apply to any real-world phenomena.*

C) experiential

D) laboratory

Answer: A

 Page Ref: 36

TEXT LO: 1.10 Describe how psychological research affects our daily lives

150. What famous American psychologist also heavily influenced the field of advertising?

A) William James

B) Carl Rogers

C) B. F. Skinner

D) John Watson

Answer: D

 Page Ref: 36

TEXT LO: 1.10 Describe how psychological research affects our daily lives

151. If you were conducting a study designed to determine which type of psychotherapy is most effective in the treatment of generalized anxiety disorder, what type of research would you employ?

A) basic

*Incorrect. Basic research examines how the mind works, but does not directly apply to any real-world phenomena.*
B) applied
*Correct. Applied research examines how we can use basic research to solve real-world problems.*

C) academic
D) sociobiological
Answer: B

 Page Ref: 36

TEXT LO: TEXT LO: 1.10 Describe how psychological research affects our daily lives

152. Wilhelm Wundt employed the technique of introspection in his research into the structure of the human mind. His research would best be characterized as \_\_\_\_\_\_\_\_\_\_ research.

A) basic
*Correct. Basic research examines how the mind works, but does not directly apply to any real-world phenomena.*
B) applied
*Incorrect. Applied research examines how we can use basic research to solve real-world problems.*

C) naturalistic
D) analogue
Answer: A

 Page Ref: 36

TEXT LO: 1.10 Describe how psychological research affects our daily lives

**FILL-IN-THE-BLANK**

1. \_\_\_\_\_\_\_\_ refers to a person's belief that he or she accurately and objectively sees the world as it is.

Answer: Naive realism

 Page Ref: 5

2. An explanation for a large number of findings in the natural world is what a scientist would call a(n) \_\_\_\_\_\_\_\_.

Answer: scientific theory

 Page Ref: 7

3. Tatiana is a manager of a large grocery store, and she believes that, if left to their own devices, her high school and college-age workers would do nothing but text and talk on their cell phones. She constantly watches and warns these employees about being written up or fired for repeated violations of the no cell-phone use policy. However, she often ignores the same behavior by her older adult employees. It would be wise to warn her of the dangers of the \_\_\_\_\_\_\_\_.

Answer: confirmation bias

 Page Ref: 8

4. Kari Ann is listening to the mayoral debate on a local access channel. She has strong feelings for one of the candidates and strong feelings against the other. If these feelings influence her evaluation of their performance because she is seeking supportive evidence for her beliefs, the \_\_\_\_\_\_\_\_ is likely to occur.

Answer: confirmation bias

 Page Ref: 8

5. Most people get their knowledge about psychological topics not from scientific journals or academic-related books but rather from \_\_\_\_\_\_\_\_.

Answer: popular psychology (or the popular psychology industry)

 Page Ref: 11

6. \_\_\_\_\_\_\_\_ refers to claims or statements that superficially appear to be scientific but are not.

Answer: Pseudoscience

 Page Ref: 11

7. Before one's research is published in a scientific journal, it must be evaluated in terms of its accuracy and contribution to the field. This evaluation is referred to as \_\_\_\_\_\_\_\_.

Answer: peer review

 Page Ref: 13

/Conceptual

8. The phrase "If I didn't believe it, I wouldn't have seen it" most accurately describes how the *cognitive* factor \_\_\_\_\_\_\_\_ leads to the development of pseudoscientific belief.

Answer: pareidolia

 Page Ref: 15

9. The use of the emotions one experiences as a guide for evaluating the validity of scientific claims is called \_\_\_\_\_\_\_\_ by psychologists.

Answer: emotional reasoning

 Page Ref: 17-18

10. Mistakenly assuming that popularity of a theory is in some way indicative of a theory's correctness or accuracy is the definition of \_\_\_\_\_\_\_\_.

Answer: the bandwagon fallacy

 Page Ref: 18

11. In the movie *Revenge of the Sith*, Anakin Skywalker/Darth Vader tells his former mentor, Obi-Wan Kenobi, "If you are not with me, then you are my enemy." This is an example of the \_\_\_\_\_\_\_\_.

Answer: either-or fallacy

 Page Ref: 18

/Conceptual

12. When a person views the world in terms of absolutes ("you are either with us or against us") they are extremely likely to fall victim to the \_\_\_\_\_\_\_\_.

Answer: either-or fallacy.

 Page Ref: 18

13. Assuming that because a scientific fact exists means a certain behavior is therefore acceptable is what is known as the \_\_\_\_\_\_\_\_.

Answer: naturalistic fallacy

 Page Ref: 18

14. Tim believes that because evolutionary psychologists speculate that the ability to lie is adaptive, it must be OK to lie to his parents. Tim has committed the \_\_\_\_\_\_\_\_.

Answer: naturalistic fallacy

 Page Ref: 18

15. You overhear Sheila tell a friend, "Never date a fraternity guy! Everyone I dated cheated on me!" Sheila has committed the \_\_\_\_\_\_\_\_ fallacy.

Answer: hasty generalization

 Page Ref: 18

16. Scientific skepticism requires that any claim is met with a(n) \_\_\_\_\_\_\_\_.

Answer: open mind

 Page Ref: 20

TEXT LO: 1.5 Identify the key features of scientific skepticism

17. During a class discussion on the effects of day care on later social adjustment, Dr. Barnes frequently reminded her students to focus on the scientific evidence rather than on their feelings about day care. Dr. Barnes is promoting \_\_\_\_\_\_\_\_\_\_\_ in his students.

Answer: critical thinking (or scientific skepticism)

 Page Ref: 20-26

TEXT LO: 1.5 Identify the key features of scientific skepticism

18. According to the authors, we sometimes must look to authorities because we do not possess the expertise, resources, or \_\_\_\_\_\_\_\_ to evaluate all claims about human behavior.

Answer: time

 Page Ref: 21

TEXT LO: 1.5 Identify the key features of scientific skepticism

19. In an experiment, a researcher attempts to create situations where support for one position indicates a lack of support for other positions. This is an application of the critical thinking principle of \_\_\_\_\_\_\_\_.

Answer: ruling out rival hypotheses

 Page Ref: 21-23

20. For a scientific claim to be meaningful, it must be capable of being disproven. This is the critical thinking principle of \_\_\_\_\_\_\_\_.

Answer: falsifiability

 Page Ref: 23-24

21. \_\_\_\_\_\_\_\_ refers to the idea that a study's results have been independently verified by others and are not simply the result of chance or coincidence.

Answer: Replicability

 Page Ref: 24-25

22. The development of psychology as a discipline focused on scientific experimentation after 1879 lead to a split from its roots in \_\_\_\_\_\_\_\_.

Answer: philosophy

 Page Ref: 27

23. The psychological school of \_\_\_\_\_\_\_\_ was concerned with scientific efforts to understand the basic foundations of everyday conscious experience.

Answer: structuralism

 Page Ref: 27-30

24. \_\_\_\_\_\_\_\_ was the psychological school that argued most strongly on the importance of an observable and objective science of psychology.

Answer: Behaviorism

 Page Ref: 30-31

25. Randi is giving a talk on theoretical frameworks in psychology. In her talk she mentions the importance of understanding internal psychological processes and that we are frequently unaware of the underlying causes for many of our thoughts, feelings, and behaviors. Randi's talk is most likely on \_\_\_\_\_\_\_\_.

Answer: psychoanalysis

 Page Ref: 33

26. Many psychologists believe that free will is a(n) \_\_\_\_\_\_\_\_ because of the automaticity of many behaviors.

Answer: illusion

 Page Ref: 35

27. Antonio is investigating the best method for using what is known about persuasion to develop an effective anti-littering campaign in his town and county. This is an example of \_\_\_\_\_\_\_\_ research.

Answer: applied

 Page Ref: 36

TEXT LO: 1.10 Describe how psychological research affects our daily lives

**ESSAY**

1. Evaluate critically the kind of information that one gains from common sense.

Answer: Answers will vary but should contain information from the following sections of Chapter 1 for full credit.

--Much of common sense is demonstrably incorrect.

--We often believe contradictory ideas with equal strength in their accuracy (which leads to commonsense proverbs being unfalsifiable).

--Naive realism and logical fallacies mentioned in text are used to buttress claims of the accuracy of common sense (appeals to authority, argument from antiquity fallacy, bandwagon fallacy).

--Confirmation bias and belief perseverance allow us to continue to hold erroneous beliefs because we only look for supportive evidence (confirmation bias) and we refuse to modify/correct our false beliefs (belief perseverance).

 Page Ref: 5-6

2. Analyze how the sins of pseudoscience are often examples of violations of the principles of critical thinking.

Answer: Answers will vary but should contain the following information for full credit.

--Overuse/Use of ad hoc immunizing hypotheses violates the principle of falsifiability because it involves giving after-the-fact explanations that describe the negative findings of the research. Overreliance on anecdotes may also violate the spirit of falsifiability because anecdotes are difficult at best, impossible at worst, to verify.

--Overreliance on anecdotes violates the principle of correlation versus causation. People assume that the world operates in the way they have observed, but just having an example of something does not mean that one has established a cause-and-effect relationship.

--Overreliance on anecdotes violates the principle of replicability. It's often hard, if not impossible to verify the truthfulness of the supposed claims from testimonials or anecdotes. Lack of self-correction also violates this principle because a lack of replication should lead to self-correction but many pseudoscientific beliefs persist anyway.

--Exaggerated claims violate the principle of extraordinary claims requiring extraordinary evidence. The kind of evidence needed for most claims either cannot be obtained or is much more ordinary that the proponents of pseudoscience would wish to admit.

--Absence of connectivity is a violation of ruling out rival hypotheses and parsimony.

 Page Ref: 11-26

3. Apply the critical thinking principles discussed in Chapter 1 to a discussion of how science is an approach to evidence.

Answer: Answers may vary but a full credit answer will contain the following points.

--Needs to discuss the ideas of communalism, disinterestedness, and humility (need to recognize that our hypothesis or theory is wrong).

--Because our work will be publicly verified by others (communalism), we are required to ask questions in a manner that allows them to be shown to be supported or refuted (falsifiability).

--Critical thinking principles provide the tools to choose between theories: parsimony, kind of evidence necessary to modify what is currently known (extraordinary claims need extraordinary evidence), replicability is needed to help ensure the accuracy of initial findings, and the questions should be structured so that rival explanations are eliminated via research.

--Must understand that demonstrating a relationship (correlation) isn't the same as demonstrating causation.

 Page Ref: 21-26

4. Discuss the concerns that John Watson would have had had with both the structuralist and psychoanalytic perspectives on psychology.

Answer: Answers will vary but should include any three of the following for full credit.

--Behaviorists are concerned with studying observable behavior that contains no subjectivity on the part of the individual reporting the data or recording the data. Both structuralism and psychoanalysis would include unobservable information that would be subjective rather than objective.

--Behaviorists were more concerned with the external world. Psychoanalysis and structuralism focused on issues internal to the individual.

--Behaviorists focused more on the importance of research and the use of the scientific method than did psychoanalysts.

--Behaviorists focused more on the importance of the conscious level of the mind while psychoanalysts were most interested in studying the unconscious level.

 Page Ref: 29-32

5. According to your authors, how should the critical thinking student explain how the field of psychology feels about the evidence regarding the nature-nurture debate and the free will-determinism debate?

Answer: Answers will vary but should contain the following information for full credit. The student needs to include supportive evidence for each of the following for full credit as well.

--Most psychologists agree that both genes and our social environment play critical roles in our behavior. However, research continues to explore when the two will interact together and when one is more important than the other for specific behaviors.

--Many psychologists believe that human behavior is largely deterministic and that we are unaware of so many of the influences on our behavior that we mistakenly believe we are free actors.

--Most psychologists believe that the mind is equivalent to the activity of the brain and nervous system. However, it is likely that this issue, unlike the preceding issues, cannot ever be resolved scientifically.

 Page Ref: 34-35

6. Describe how the fact that psychological influences are often unknown plays a key role in the philosophical debate over the relative influences of free will and determinism.

Answer: Answers will vary but should contain the following information for full credit.

--Many key influences are often overlooked by people or their importance is discounted by people.

--Because of the previous factor, many people often come to view their behavior as intentional and self-directed when it is really not.

--Also, much of human behavior is the result of well-learned, automatic responses. Despite this fact we continue to believe that we control our destiny and can influence real-life circumstances even when we cannot.

--We then come up with after the fact explanations that sound reasonable to us, despite the fact that they are completely erroneous explanations for our behavior.

 Page Ref: 35

**CRITICAL THINKING**

1. Illustrate how the confirmation bias has created a problem for a friend or family member in the past.

Answer: Answers will vary but should include the following information for full credit.

--Student should mention the basic idea of the confirmation bias (seek out supportive evidence but fail to seek out, ignore, or distort contradictory information).

--Student should clearly and correctly identify a situation where they observed an individual using the confirmation bias and how the person came to an erroneous conclusion.

 Page Ref: 8-9

/Conceptual

2. Demonstrate a time that you fell victim to at least one of the following logical fallacies (bandwagon fallacy, emotional reasoning fallacy, either-or fallacy, or not me fallacy) and how it negatively affected the quality of your decision on that occasion.

Answer: Answers will vary but should contain the following information for full credit.

--Student clearly and correctly identifies at least one of the fallacies listed above in his/her answer.

--Student provides supportive detail to show how the fallacy negatively affected them.

 Page Ref: 18-19

3. Describe the dangers of pseudoscience and why the dangers should matter to you.

Answer: Answers will vary but at least three of the following are needed for full credit.

--People use valuable resources (primarily money), time, and energy on pseudoscientific treatments that either don't work or have no research on their effectiveness as treatments. Meanwhile, they are missing out on scientifically documented, effective treatments that could relieve their suffering.

--These decisions lead to impacts on the diversity of animal species throughout the world.

--Persons may be directly harmed when opinion rather than scientific proof is used in the application of a treatment.

--Pseudoscience impacts people in their daily lives (it impacts the education their children may get, it impacts the workplace, it impacts their community through politics and other means).

4. Explain how the principles of critical thinking can assist a person in making more informed and, hopefully, more accurate decisions in one's day life. Do you think these principles are actually necessary, or are they just a means to be too critical of research?

Answer: Answers will vary but should include *at least four* of the following ideas for full credit.

--The principle of falsifiability helps to inform us of the kinds of questions that we can ask and actually find a scientific answer.

--The principle of parsimony reminds us to focus on the simplest explanation with the fewest assumptions as being the best.

--The principles of replicability and extraordinary claims requiring extraordinary evidence address the ability to verify other people's claims (we need concurrence from independent sources) and that this is especially true when our claims contradict what is "known."

--Extraordinary claims also require stronger evidence because they are asking us to put aside our current beliefs in favor of a new theory that explains both the known and the new information we have gathered.

--We need to have gathered the evidence in such a way that our explanation/ understanding is the only possible rational reason for the data (Ruling out rival hypotheses).

--We must remember that just because two things are related doesn't mean that one caused the other (third variable explains each and the relationship we observe comes from that).