Practice Quiz Questions

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1 Establishing Academic Psychology

1.1 Why did early psychologists want psychology to be recognized as a science?

A) Because it was previously associated with the paranormal and religion.
B) To improve its popularity among students
C) To access more government funding
D) To compete with philosophy departments

Answer

A: In the 19th century, psychology struggled to gain legitimacy because it was associated with spiritualism and paranormal phenomena, which were not considered scientifically rigorous. Psychologists like Wundt wanted to separate the new science of psychology from "non-scientific" domains to ensure its credibility.

1.2 What was Wundt's term for the scientific approach to studying the mind?

A) Folk psychology
B) Völkerpsychologie
C) New psychology
D) Behavioural sciences

Answer

C: Wundt used the phrase "new psychology" to describe the scientific study of the mind based on laboratory methods (introspection). This was a conscious effort to distinguish it from older philosophical or spiritual perspectives.

1.3 What was the role of the observer in Wundt's experiments?

A) Conducting statistical analysis
B) Creating experimental hypotheses
C) Performing introspection to report immediate experiences
D) Analyzing dreams

Answer

C: In Wundt's lab, participants (observers) were trained to report immediate sensations and feelings during an experience without interpreting them—this process was called introspection. It was central to his methodology.

1.4 What was Wundt's strategy to make psychology a respected science?

A) Public lectures and debates
B) Writing science fiction about the mind
C) Collaborating with religious institutions
D) Limiting the subject matter to measurable, immediate experiences

Answer

D: Wundt focused psychology on the immediate experiences that could be measured and reported through introspection. By doing this, he ensured that psychology aligned with the scientific norms of the time.

1.5 What kind of science was psychology trying to emulate during Wundt's time?

A) Astronomy
B) Chemistry
C) Engineering
D) Biology

Answer

B: Wundt was modelling psychology on the achievements of chemistry at the end of the nineteenth century; he was trying to make a psychological equivalent of the periodic table.

2 Disciples & Schools of Psychology

2.1 How does the historic bias against applied psychology (in contract to "pure" science) reflect deeper societal inequalities?

A) It was based solely on financial concerns
B) It mirrors class-based hierarchies where practical work is undervalued
C) It reflects opposition from religious institutions
D) It discouraged academic curiosity

Answer

B: Applied science was seen as utilitarian and thus "lower class." This mirrored classist ideas where abstract, impractical knowledge was reserved for elites and considered superior

2.2 Who has found the first clinical psychology clinics in the U.S.?

A) Carl Jung
B) Lightner Witmer
C) Wilhelm Wundt
D) John Watson

Answer

B: Witmer pioneered applied clinical psychology in the U.S., emphasizing treatment and educational interventions—especially for children with mental or developmental conditions

2.3 What was a defining new feature of behaviourism compared to previous psychological paradigm?

A) Study of observable behaviours through controlled experiments
B) Focus on dreams and unconscious desires
C) Emphasis on brain imaging techniques
D) Use of introspection to study thought

Answer

A: Behaviourism rejected introspection and focused on behaviors that could be observed and measured. This shift aligned psychology more closely with the methods of the natural sciences, emphasizing control, prediction, and replication

2.4 How did the rise of cognitive psychology challenge behaviourist assumptions?

A) It embraced biological determinism
B) It revived structuralist theories
C) It argued that internal processes are essential for understanding behaviour
D) It rejected all experimental methods

Answer

C: Cognitive psychology demonstrated that behaviour couldn't be fully understood without considering mental processes like attention, memory, and problem-solving, offering more comprehensive models

2.5 How did Tolman's purposive behaviourism differ from classical behaviourism?

A) It rejected experimental methods
B) It focused solely on unconscious motivation
C) It emphasized spiritual and emotional states
D) It included goal-directed behaviour and internal cognitive processes

Answer

D: Tolman challenged classical behaviourism by introducing the idea that behaviour is not just a response to stimuli, but often purposive—guided by goals and internal representations like cognitive maps. He kept the behaviourist emphasis on observable actions but added a cognitive layer to explain how organisms behave intentionally

3 Mind-Body problem

3.1 Which philosopher is most famously associated with the idea that the mind (thinking, non-physical) and body (extended, physical) are two fundamentally different kinds of things (substances)?

A) Plato
B) John Locke
C) René Descartes
D) David Hume

Answer

C: René Descartes is the correct answer because Chapter 1 specifically identifies him as formulating the influential version of the mind-body problem based on two-distinct substances: the mind as essentially non-physical thinking, and the body as essentially physical extension (occupying space). The question then becomes how these seemingly separate substance might interact with each other (the mind-body problem). While Plato (Answer A.) discussed the soul/body, his focus differed and he didn't frame the problem in terms of these specific substances (thinking vs. extension) that define the modern issue. Neither John Locke (Answer B.) nor David Hume (Answer D) are presented as the originators of this specific dualistic framework (thinking vs. extension). Their significant contributions to philosophy lie elsewhere (e.g., empiricism, theories of knowledge, self).

(Westphal Chapter 1, pp. 12-19)

3.2 Parallelism, as a solution to the mind-body problem discussed in Chapter 2, suggests that …

A) The mind and body causally interact via the pineal gland.
B) The mind and body are distinct but operate in perfect synchrony without causal interaction.
C) Mental events are by-products of physical events but have no causal power.
D) Mental states are actually identical to physical brain states.

Answer

B: Parallelism is a dualist theory that accepts mind and body are distinct entities (like Interactionism) but, crucially, it denies that they interact causally (rejecting proposition 3 of the tetrad). Instead, it proposes that mental event sequences and physical event sequences run parallel to each other in perfect correlation or pre-established harmony, like two perfectly synchronized clocks striking at the same instant. There's no causal link between them; they just operate in tandem. Option A. describes Descartes' Interactionism. Option C. describes Epiphenomenalism. Option D. describes Identity Theory.

(Westphal Chapter 2, pp. 34-40)

3.3 Epiphenomenalism, as discussed in Chapter 2, proposes that …

A) Mental events cause physical events, but not vice-versa.
B) Mental and physical events run in parallel without interaction.
C) Physical events cause mental events, but mental events have no causal effects on physical events.
D) Mental events are identical to physical brain events.

Answer

C: Epiphenomenalism views the mind or mental events as "epiphenomena" – meaning they are by-products or side effects of physical processes (specifically, brain activity). The core idea is that causation flows in only one direction: physical events (e.g., neuron firings) cause mental events (e.g., feelings or thoughts). However, these mental events are considered causally inert; they are like shadows or steam whistles that accompany the real work but have no power to influence the physical events that cause them. So, physical causes mental (P M), but mental cannot cause physical (M P is denied). Thus, C is the correct answer. Option A. reverses the causal direction presented above. Option B. describes parallelism, which denies any interaction. Option D. is incorrect because Parallelism insists that mind and body are distinct, non-identical things. Option D. describes the Identity Theory, which makes the opposite claim: that they are identical.

(Westphal Chapter 2, pp. 44-48)

3.4 Eliminative Materialism, discussed near the end of Chapter 3, argues that concepts like 'beliefs' and 'desires' from "folk psychology" are ...

A) Useful concepts that neuroscience will eventually explain fully.
B) Fundamentally correct descriptions of real mental states.
C) Part of a radically false theory that should be discarded and replaced by neuroscience.
D) Non-physical properties that emerge from complex brain activity.

Answer

C: Eliminative Materialism takes a radical stance against our everyday way of talking about the mind ("folk psycholofy"). It argues that terms llike 'belief', 'desire', 'hope', etc., are not just incomplete but are concepts from a fundamentally flawed and "radically false theory". Proponents believe these concepts don't accurately map onto brain function and that, as neuroscience advances, this entire folk psychological framework will be eliminated from scientific discourse and replaced entirely by neuroscientific explanations. It doesn't seek to refine or explain folk concepts (Answer A.) or view them as correct (Answer B.). It's a form of physicalism, so it rejects non-physical properties (Answer D.); it claims the mental concepts themselves are simply wrong and refer to nothing real.

(Westphal Chapter 3, pp. 77-82)

3.5 The Double Aspect Theory, associated with Spinoza and discussed in Chapter 6, suggests that mind and body are ...

A) Two distinct substances that constantly interact causally.
B) Two different aspects or ways of understanding one single underlying substance.
C) Identical, with mental states being ultimately reducible to physical states.
D) Separate parallel processes with no connection, perhaps synchronized by an external force.

Answer

B: The Double Aspect Theory is a form of monism, meaning it posits only one fundamental kind of substance or reality. This underlying substance is considered neutral – neither purely mental nor purely physical. According to this view (associated with Spinoza), 'mind' (or the aspect of 'thought') and 'body' (or the aspect of 'extension') are not two separate things that interact (Answer A.), but rather two different attributes or ways of perceiving or understanding this single underlying reality. It avoids the interaction problem because there aren't two distinct types of things needing to interact. It differs from reductive physicalism (Answer C.) because it doesn't necessarily claim mind reduces to the physical; both are aspects. It also differs from Parallelism (Answer D.) because the correlation between mind and body arises from them being aspects of the same underlying events, not separate synchronized processes.

(Westphal Chapter 6, pp. 159-162)

4 What is science?

4.1 Which type of reasoning involves deriving conclusions from general principles?

A) Induction
B) Abduction
C) Deduction
D) Speculation

Answer

C: Deductive reasoning goes from general premises to a specific conclusion. If the premises are true, the conclusion must be true. For example:

Example

1. All humans are mortal.
2. Socrates is human.
3. Therefore, Socrates is mortal.

This is contrasted with induction and abduction, which do not guarantee truth.

4.2 What is a key characteristic of scientific knowledge?

A) It is based on authority
B) It is open to revision
C) It avoids empirical evidence
D) It requires religious justification

Answer:

B: Scientific knowledge is never final—it is always revisable in light of new evidence. This openness distinguishes science from dogma or superstition, which claim unchangeable truth.

4.3 What role do *models* play in scientific explanation according to the Bem & Looren de Jong?

A) They mediate between laws and phenomena
B) They replace empirical data
C) They provide unverifiable analogies
D) They eliminate the need for theories

Answer

A: Models act as bridges between abstract theories (laws) and observed reality. They help apply theories to specific cases and visualize or simulate phenomena, especially in psychology and cognitive science.

4.4 Which concept suggests that our observations are influenced by the theoretical framework we already hold?

A) Empirical neutrality
B) Observational absolutism
C) Logical positivism
D) Theory-ladenness

Answer

D: Theory-ladenness. This concept argues that observations are not purely objective but are shaped by existing beliefs, concepts, and theories. What we "see" is filtered through what we expect or assume.

4.5 According to Merton, why is science considered to be aligned with a liberal society?

A) Because it relies on state funding and centralized control
B) Because it resists collaboration and promotes individuality
C) Because it operates through an ethos of norms rather than formal authority
D) Because it relies exclusively on empirical data collection

Answer

C: Because it operates through an ethos of norms rather than formal authority. Merton argued that science is self-regulating through shared cultural norms (an ethos), not through external enforcement, making it analogous to the structure of a liberal society.

5 Philosophy of Science

5.1 According to David Hume, what is the law of cause and effect?

A) The belief that every effect can be logically deduced from its cause
B) The tendency of the mind to associate two events that are always experienced together, inferring a causal connection
C) The rule that sensory impressions always result in physical actions
D) The idea that the mind can directly observe necessary connections in nature

Answer

B: Hume argued that we do not observe causality directly. Instead, when two events occur together consistently and in sequence, the mind forms a habit of associating them and infers a cause-effect relationship, even though no necessary connection is ever observed.

5.2 Which statement best describes the central idea of positivism as a philosophy of science?

A) Positivism rejects metaphysical speculation and focuses on observable, verifiable facts
B) Positivism values intuition and metaphysical reasoning above empirical methods
C) Positivism emphasizes the subjective interpretation of reality
D) Positivism holds that all scientific knowledge comes from innate ideas

Answer

A: Positivism, particularly as proposed by Comte and others, is rooted in the idea that only knowledge derived from observable phenomena and empirical data is valid. It rejects metaphysical and speculative explanations as unscientific because they cannot be verified through observation or experimentation.

5.3 What did Popper see as a danger to both science and democracy?

A) Excessive reliance on mathematical models
B) Ad hoc hypotheses
C) Dogmatic systems that resist criticism
D) Scientific consensus

Answer

C: Popper argued that systems like Marxism and Freudianism were pseudo-scientific because they were immune to falsification and criticism, which he saw as threats to scientific and democratic rationality

5.4 What did Karl Popper propose as the key criterion to distinguish science from pseudo-science?

A) Confirmation
B) Logical coherence
C) Falsifiability
D) Correctness

Answer

C: Popper believed a theory is scientific only if it is falsifiable, meaning it can be tested and potentially refuted by evidence

5.5 According to Kuhn, what typically triggers a scientific revolution?

A) The discovery of new technologies
B) A sudden political shift
C) A majority vote among scientists
D) A crisis caused by accumulating anomalies in the current paradigm

Answer

D: A crisis caused by accumulating anomalies in the current paradigm Explanation: When enough anomalies (unexplained data) build up within a paradigm, it leads to a crisis, which can trigger a paradigm shift

6 Methods of Quantitative Psychology

6.1 What is the main difference between experimental and nonexperimental research designs?

A) Experimental designs rely on interviews; nonexperimental designs use surveys
B) Experimental designs involve an active intervention; nonexperimental designs do not
C) Experimental designs are only used in biology; nonexperimental designs in psychology
D) Experimental designs cannot be replicated; nonexperimental designs can

Answer

B: Experimental designs require active manipulation or intervention by the researcher, while nonexperimental designs involve observation without interference

6.2 Which of the following is a common threat to internal validity in one-group pretest-posttest designs?

A) Random assignment
B) Structural equation modeling
C) Spontaneous remission
D) Content validity

Answer

C: Spontaneous remission (or endogenous change) refers to improvements occurring naturally over time, making it hard to attribute changes to the intervention alone

6.3 What does it mean if a variable is a moderator in a research study?

A) It causes both the independent and dependent variables
B) It mediates the effect of the dependent variable
C) It is always the outcome measure
D) It influences the strength or direction of the relationship between two variables

Answer

D: A moderator affects the strength or direction of the relationship between two other variables, acting like a "volume control" in the association .

6.4 Which of the following is not one of the general conditions required to infer a causal relationship in psychological research?

A) Covariation/correlation – the variables must be associated
B) Temporal precedence – the cause must occur before the effect
C) Exclusion of alternative explanations
D) High statistical power

Answer

D: While high statistical power is valuable for detecting effects, it is not one of the four core conditions for causality. The required conditions are: covariation, temporal precedence, exclusion of alternative explanations, and a logical or theoretical mechanism

6.5 In Sternberg's additive factor logic, what does it mean if two factors do not interact in their effect on reaction time?

A) They affect different stages of processing
B) They cancel each other out
C) They are unsystematic effects
D) They affect the same mental stage

Answer

A: If two factors show no interaction (i.e. their effects simply add up), it suggests they influence different cognitive stages

7 Questionable Research Practices

7.1 What can distort findings and inflate the likelihood of false positives in scientific research?

A) Using large sample sizes
B) Applying Bayesian statistical methods
C) Presenting exploratory results as confirmatory
D) Conducting replication studies

Answer

C: Reporting exploratory analyses as if they were planned in advance undermines statistical validity, inflating Type I error rates and leading to misleading conclusions.

7.2 What does the term "file drawer problem" refer to?

A) Data stored without proper analysis
B) Storing raw data for replication
C) Studies with null results not being published
D) A method of organizing study protocols

Answer

C: The "file drawer problem" describes how studies with non-significant results are often not submitted or published, distorting the scientific record.

7.3 What is a "registered report" in scientific publishing?

A) A study with peer-reviewed design and analysis plan before data collection
B) A study that has undergone a second peer review after publication
C) A report published only in government journals
D) A review of multiple previously registered studies

Answer

A: A study with peer-reviewed design and analysis plan before data collection Explanation: Registered reports help reduce bias by accepting studies based on methods rather than results, promoting transparency and reproducibility.

7.4 Which of the following is considered a questionable research practice (QRP)?

A) Pre-registering hypotheses before data collection
B) Reporting all experimental conditions and measures
C) Sharing raw data publicly for transparency
D) Selectively reporting only statistically significant outcomes

Answer

D: Selective reporting distorts the scientific record and is a common QRP, as it hides null or contradictory findings.

7.5 What is *p*-hacking in scientific research?

A) Using only large datasets to increase reliability
B) Manipulating data collection or analysis to produce statistically significant results
C) Pre-registering hypotheses before data collection
D) Publishing studies that fail to reach statistical significance

Answer

B: *p*-hacking involves practices like selectively reporting outcomes, running multiple analyses, or stopping data collection early to artificially achieve $p < 0.05$, which increases the risk of false positives.