

Multiple Choice Questions

1. While the conceptual foundations of psychology came from philosophy, the inspiration for the creation of an independent science of psychology came from:
 - a. Mathematics
 - b. Biology**
 - c. Chemistry
 - d. Religion
2. Isaac Newton's critics argued that he never explained how gravity actually worked. Newton's response was "Hypotheses non fingo", which essentially means:
 - a. I am nothing like a positivist
 - b. I do not feign hypotheses**
 - c. I hypothesize that you have not understood my calculations.
 - d. The spirit of the times is my guide to reason.
3. Which of the following is **NOT** a primary function of science according to the positivists (e.g. Auguste Comte)?
 - a. description
 - b. control
 - c. prediction
 - d. explanation**
4. According to Karl Popper, a discipline that claims to be a science is really a pseudoscience like astrology if it:
 - a. can offer no facts in its support
 - b. offers no refutable predictions**
 - c. gives rise to no experiments
 - d. is not true
5. Positivism and Popper's philosophy of science share a common flaw:
 - a. Neither is true to the way science is actually practiced.**
 - b. Both pay too much attention to the content of theories.
 - c. Both pay too much attention to the truth or falsity of theories.
 - d. Both are too concerned with the social impact of science.
6. According to the semantic approach to theories, scientific theory is not directly about the real world. It is really about:
 - a. ideals of natural order
 - b. a paradigm
 - c. experimental situations
 - d. an idealized model of the world**
7. One innovative aspect of T. S. Kuhn's analysis of science was that it:
 - a. argued that science was truly from the view of Nowhere
 - b. rejected the idea of paradigms in science.
 - c. stressed the social nature of science**
 - d. stressed the need for ideal experiments
8. In a Kuhn's view of science, _____ provides scientists with a blueprint and foundation for scientific enterprises.
 - a. the covering law
 - b. the falsification test
 - c. anomalies
 - d. a paradigm**

9. Problems for Kuhn's analysis of science include:
 - a. little historical evidence for change in a revolutionary manner.
 - b. his own retreat from the theme of revolution in his analysis.
 - c. **all of the above.**
 - d. none of the above.
10. Sir Karl Popper formulated his demarcation criterion as a rule:
 - a. **for telling real science from fake science.**
 - b. for understanding paradigm shifts in science.
 - c. for predicting "micro-revolutions" in economics.
 - d. for understanding the historiography of psychology.
11. When two scientific theories clash over their ability to explain some phenomena there are two possible outcomes. One of these outcomes is when one theory is right and the other is wrong and the wrong theory is discarded. This outcome is known as:
 - a. **replacement**
 - b. falsification
 - c. naturalism
 - d. reduction
12. In terms of how science changes, one could argue that Historian Thomas Kuhn's analysis uses a _____ approach that emphasis the human dimension of science. In contrast, Sir Karl Popper offered an interesting theory of scientific change because Popper tackles the question of how science changes from a _____ rather than a historical point of view.
 - a. epistemological, syntactic
 - b. syntactic, epistemological
 - c. Whiggish, naturalistic
 - d. **naturalistic, normative**
13. Which of the following is most clearly a reason-as opposed to a cause-for Bill murdering Sam?
 - a. Bill was high on PCP (Phencyclidine) at the time.
 - b. **Bill wanted to marry Sam's wife.**
 - c. Bill had a brain tumor.
 - d. Bill had schizophrenia and thought Sam was a dangerous Martian invader.
14. Popper's demarcation criterion of falsifiability runs into two difficulties. One of which is?
 - a. historical Zeitgeists
 - b. **scientific theories actually compete with each other as well as with nature.**
 - c. it does not agree with the Nomological Approach
 - d. none of these

15. The Historian Thomas Kuhn proposed the concept of a paradigm among scientists. Paradigms can _____.
 - a. provide scientists with assumptions about the nature of reality
 - b. provide a blueprint that will guide experimental procedures
 - c. influence and shape how scientists view the world
 - d. **all of the above**
16. A somewhat controversial aspect of Thomas Kuhn's picture of science is the idea:
 - a. that science is influenced by natural and social forces.
 - b. that there are times in the history of science when science fails to move at all.
 - c. **that science can undergo radical change in short periods of time resulting in "revolutions" of thought.**
 - d. that science always evolves in a slow, rational and progressive manner .
17. The "New History" criticizes the "Old History" for:
 - a. presenting history "from below"
 - b. offering too many Zeitgeist explanations
 - c. being externalist
 - d. **often excluding women, minorities and ordinary people.**
18. Which of the following is true of the "Old History" as opposed to the "New History"?
 - a. internalist oriented
 - b. Zeitgeist oriented
 - c. **narrative in form**
 - d. borrows from social science
19. The author of the text notes that the most important historical source of science's view from nowhere was _____.
 - a. the Greeks theological view of priests influencing the gods.
 - b. the invention of agriculture.
 - c. Edwin Boring's classic text on the history of psychology and its view of science.
 - d. **the Cartesian conception of consciousness and its relation to the world.**
20. According to Thomas Kuhn, most eras in science are dominated by a single *Weltanschauung* called a(n):
 - a. Gestalt
 - b. research plan
 - c. **paradigm**
 - d. axiom set
21. In terms of two scientific theories clashing with each other to explain phenomena, which of the following is an example of *reduction*:
 - a. **Mendelian genetics to molecular genetics.**
 - b. Ptolemaic view of the solar system to the Copernican system.
 - c. Copernican system to Mendelian theory.
 - d. Whig theory to epistemology.
22. If a scientist believes that his or her theory may actually be true, then he or she is a(n):
 - a. **realist**
 - b. instrumentalist
 - c. revolutionary
 - d. positivist

- 23-25. Philosophy of Science: Match philosophical school or person to basic idea.
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| 23. positivism (a) | a. description basis of science |
| 24. T. S. Kuhn (c) | b. falsificationism |
| 25. K. Popper (b) | c. paradigms and revolutions |
26. According to Isaac Newton, to explain something scientifically meant:
- a. framing hypotheses about hidden causes of observable events
 - b. demonstrating the underlying causal mechanisms of nature
 - c. establishing the reality of atomic and subatomic particles
 - d. showing how phenomena could be deduced from a few mathematical laws**
27. In the Hempel and Oppenheim covering-law model of explanation, the *explanandum* is the:
- a. thing to be explained**
 - b. law of nature from which the event is to be explained
 - c. the logical steps connecting the relevant law to the explained event
 - d. set of laws covering the event
28. Which of the following explanations most clearly does NOT violate the Iron Law of Explanation?
- a. Sally's shyness is caused by her introversion.
 - b. Depression is caused by a neurochemical imbalance in the brain**
 - c. Bob made the right decision because he's a good decision-maker
 - d. Congressman X takes bribes because he's greedy.
29. In the Hempel and Oppenheim covering-law model of explanation, explanation is basically the same as:
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|------------------|----------------------|
| a. understanding | c. prediction |
| b. control | d. superstition |
30. From the causal perspective on scientific explanation, the chief failure of the covering-law model is its:
- a. emphasis on quantitative mathematics
 - b. search for true laws of nature
 - c. excessive realism
 - d. emphasis on explanation as merely logical deduction**
31. To the positivist, a shortcoming of the causal perspective or explanation is:
- a. not having an adequate account of causation itself**
 - b. avoidance of metaphysics
 - c. avoidance of looking for truth
 - d. over-emphasis on laws of nature
32. The perspective on explanation that focuses on the social context of explanations is the:
- | | |
|----------------|---------------------|
| a. epistemic | c. pragmatic |
| b. unification | d. causal |

- 33-35. Match model of explanation to description.
- | | |
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| 33. covering law (c) | a. analysis of explanation as question-answering |
| 34. causal (b) | b. search for hidden truth |
| 35. pragmatic (a) | c. emphasis on laws of nature |
36. Your friend Joe says that Sally is outgoing, has many friends, and is the life of any party. When asked to explain why Sally behaves this way he explains that Sally is an extravert. A good student of psychology would point out that Joe appears to be violating _____ in his explanation for Sally's behavior.
- Falsification criteria.
 - Iron law of explanation**
 - Reductionism
 - The syntactic approach.
37. The thesis that unobserved, theoretically postulated entities actually exist is called:
- realism**
 - instrumentalism
 - unificationism
 - positivism
- 38-40. Match philosophical account of theories to its description.
- | | |
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| 38. syntactic (b) | a. theories are about models of the world |
| 39. semantic (a) | b. theories are collections of sentences |
| 40. naturalism (c) | c. theories consist of a world-view |
- 41-43. Logical Positivism: Match type of term to a suitable example
- | | |
|-----------------------------|------------------------|
| 41. observation (b) | a. equals |
| 42. theoretical (c) | b. weight at sea level |
| 43. mathematical (a) | c. mass |
44. Which of the following is the **BEST** example of an operational definition?
- Atoms are the smallest particles of matter.
 - Intelligence is a score on an IQ test.**
 - The superego is the moral component of personality.
 - Neurotics tend to be anxious.
45. Like Wittgenstein, the *Weltanschauung* approach to science views science as being:
- essentially rational
 - engaged in the search for truth
 - based on models of nature
 - a form of life**
46. The author of the text argues that, "Science describes the natural world with soul-consciousness, and subjectivity subtracted. Science describes the natural world as it is from no perspective, as if there were no people in it at all". The author's statement summarizes the idea of _____?
- The Great Man view of science
 - The Whiggish view of science
 - The View From Nowhere**
 - The mind as a social construction

47. When in the development of science an old theory's laws are found to be explainable in terms of the laws of a more basic theory, then the latter theory has _____ the former.
a. eliminated **b. reduced** c. derived d. replaced
48. The author of the text points out that there is often tension between reasons and causes in explaining human action. Furthermore, the author argues that this tension also exists in the field of:
a. politics
b. economics
c. history
d. sociology
49. Which of the following is used by the Old History of psychology?
a. history from above.
b. history from below.
c. is more critical, contextual and inclusive than it is ceremonial
d. is goes beyond the study of old men and utilizes primary sources.
50. Which of the following is used by the New History of psychology?
a. utilizes more primary sources and attempts to understand issues at they appeared in the context of the time .
b. history from below.
c. is more critical, contextual and inclusive than it is ceremonial
d. all of these
51. Whig histories of science are typically internalist, seeing science as:
a. open disciplines with ill defined problems that are largely influenced by social and historical events.
b. self-contained disciplines solving well-defined problems by the rational use of the scientific method and unaffected by social/historical events.
c. not scientific at all, but simple cultural constructions of the world.
d. none of these.
52. The author of the text notes that recent history of science tends to be more _____, considering science within a larger social-historical context and pattern.
a. internalist
b. from the Great Man Perspective
c. Whiggish and rationale
d. externalist.
53. Imagine the author of a History of Psychology Text Book (know as book X) devotes a single chapter to "The Great Men of Psychology". In contrast, the author of your textbook has sought to place psychology within larger social and historical patterns. One could argue that your history of psychology text represents an example of _____ while text book (X) represents a more _____ dimension in the history of science.
a. externalism, internal
b. internalism, external
c. a nomological perspective, semantic
d. naturalism, deductive

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54. According to the textbook, western conceptions of mind began in _____ before moving first to _____ and then to _____.
a. history, philosophy, neuro-science
b. religion, philosophy, science
c. religion, history, medicine (psychiatry)
d. philosophy, medicine, the humanities.
55. A good example of a concept that is a social construction and yet can still be an object of scientific study is:
a. a hammer
b. atoms
c. neurons
d. money
56. In discussing the mind, the author suggests that one possibility is that the mind is like a tool or artifact, similar for example to a hammer or screwdriver. This view of mind suggests that minds are _____.
a. real, but not the primary focus of natural science.
b. real and must be solely the focus of natural science.
c. not real, but should be the focus of science.
d. none of these.
57. Joe argues that the concept of self and the mind are conventional terms and are not real things. Joe views the mind as a harmful illusion that one should strive to free oneself from. In contrast, Sally argues that the mind is a core concept for personhood, consciousness and individuality, allowing humans to transcend animal status. It appears Joe supports a _____ perspective, while Sally represents _____.
a. Western perspective, Buddhist philosophy.
b. Buddhist philosophy, a Western perspective.
c. Nomological perspective, humanistic view.
d. Humanistic, Nomological approach.
58. The author of the text notes that there are two reasons why psychologists have underestimated the influence of religious ideas of the soul (psyche) on conceptions of the mind. One of these reasons is:
a. psychology is aggressively secular, putting religion behind it as it follows science.
b. psychologists are not historical and have failed to consider their origins.
c. Both a and b.
d. none of these.

59. Concerning the tension between reasons and causes in history of science, the Whig history of science has tended to *overestimate* _____ viewing history of science as _____.
- social forces, a social institution that is void of individual struggle and triumph.
 - cause, seeing history as the result of random forces ending in current confusion.
 - reasons, seeing history as a fairy tale like series of progressive steps leading to current enlightenment.**
 - paradigms, the result of revolutions.
60. In his Blog post, XAM notes that Auguste Comte's proposed humans as passing through three stages. The last stage being _____.
- metaphysical
 - speculative philosophy
 - scientific**
 - theological

Essay Questions

- Describe the Newtonian style of modern science and explain how it developed into positivism. Be sure to discuss the issues related to description, prediction, control, and explanation.
- Summarize Hempel and Oppenheim's covering-law model of scientific explanation and its key features. What is the Iron Law of Explanation? Briefly describe some criticisms of the Hempel and Oppenheim covering-law model of scientific explanation.
- What is the casual approach and how does it contrast with the positivist approach to science?
- Summarize the key differences between positivism, the nomological approach (e.g. Hempel-Oppenheim model) and the casual approach.
- Contrast realist and anti-realist views of science. Discuss why the realism vs. anti-realism debate is at the heart of the nomological versus causal debate?
- Define and compare syntactic, semantic, and naturalistic conceptions of theories.
- Describe the "layer-cake" picture of science advanced by the positivists.
- In terms of the nature of scientific change, contrast the traditional rational view of scientific change with a naturalistic approach to science.
- Summarize Sir Karl Popper's approach to scientific change. Describe Popper's demarcation criterion and its usefulness. How does Popper's theory differ from Kuhn's theory of science?
- Summarize Historian Thomas Kuhn's approach to science and discuss a controversial aspect of his theory.

11. Describe the dimension of internalism-externalism in the history of science and discuss its importance.
12. Discuss two possible outcomes when two theories clash over their ability to explain the same phenomena. Why are these two outcomes important for psychology?
13. Like science, people in everyday life need and use knowledge of the world. Yet science has a “different worldview”. Explain what the philosopher Thomas Nagel’s meant by the idea of “Science as the view from nowhere”.
14. Explain the tension between reason and cause in explaining human action and discuss this tension in the history of science.
15. Summarize the historical dispute between those who see “Great Men as the makers of history” and those who adopt the perspective of a “Zeitgeist” to history.
16. Contrast the "Old" and "New" approaches to the history of science.
17. Discuss the question of whether the mind was discovered, invented or constructed. Why is this question important for psychology?
18. Compare and contrast the Buddhist and Western conceptions of the mind and its importance.