Lab Manual for Psychological Research 5th edition McBride Test Bank

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Lab Manual for Psychological Research (5th)

ISBN 9781071847312 | Chapter 1: Introduction to Behavioral Research: The Whys and Hows of the Scientific Method

Total Questions: 80

Easy

Multiple Choice (18)

Q1. *[Multiple Choice]*

Applications of _____ research may not be obvious when it is initially conducted.

a) basic ✓ correct
b) applied
c) external
d) internal

Q2. *[Multiple Choice]*

Early neuroscientists (e.g., Santiago Ramón y Cajal) conducted _____ research studies to understand how neurons function.

a) complex
b) basic ✓ correct
c) confirmation
d) applied

Q3. *[Multiple Choice]*

External validity is _____.

a) a type of research conducted in psychology
b) the degree to which a study's results can be generalized to individuals and situations outside of the study ✓ correct
c) the degree to which a study provides a good test of a causal prediction
d) the degree to which the study accurately predicts results

Q4. *[Multiple Choice]*

External validity is typically more important for _____ research than for _____ research.

a) scientific; nonscientific
b) nonscientific; scientific
c) basic; applied
d) applied; basic ✓ correct

Q5. *[Multiple Choice]*

Occam's Razor is another term for which of the following canons of the scientific method?

a) empiricism
b) determinism
c) parsimony ✓ correct
d) testability

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Q6. *[Multiple Choice]*

One reason that Freud's theories of personality have not been more influential in the field of psychology is because they _____.

a) do not specify causes for behavior
b) are not the simplest explanations for behavior
c) are too unusual
d) are difficult to falsify ✓ correct

Q7. *[Multiple Choice]*

Relying on the works of Plato and Aristotle for knowledge about the world is an example of which of the following methods of knowing.

a) intuition
b) authority ✓ correct
c) observation
d) deduction

Q8. *[Multiple Choice]*

Seeking only evidence that supports our beliefs and ignoring evidence that contradicts those beliefs is _____.

a) belief bias
b) confirmation bias ✓ correct
c) evidence bias
d) contradictory bias

Q9. *[Multiple Choice]*

The _____ canon helps scientists test their ideas more easily, because it is easier to develop a study that might falsify a simple explanation than to develop a study that might falsify a more complex explanation.

a) determinism
b) parsimony ✓ correct
c) testability
d) empiricism

Q10. *[Multiple Choice]*

The determinism canon of the scientific method states that _____.

a) the simplest explanation of a phenomenon is most likely to be correct
b) observation is the best way of gaining new knowledge
c) phenomena have observable causes ✓ correct
d) explanations of phenomena should be able to be falsified if they are incorrect

Q11. *[Multiple Choice]*

The empiricism canon of the scientific method states that new knowledge is gained from _____.

a) authority figures
b) observations ✓ correct
c) intuition
d) logic

Q12. *[Multiple Choice]*

The method of gaining knowledge that is most likely to yield accurate information is _____.

a) intuition
b) authority
c) observation ✓ correct
d) deduction

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Q13. *[Multiple Choice]*

The parsimony canon of the scientific method states that _____.

a) the simplest explanation of a phenomenon is most likely to be correct ✓ correct
b) observation is the best way of gaining new knowledge
c) phenomena have observable causes
d) explanations of phenomena should be able to be falsified if they are incorrect

Q14. *[Multiple Choice]*

The scientific method involves gaining new knowledge through _____.

a) deduction
b) intuition
c) authority
d) observation ✓ correct

Q15. *[Multiple Choice]*

The testability canon of the scientific method states that _____.

a) the simplest explanation of a phenomenon is most likely to be correct
b) observation is the best way of gaining new knowledge
c) phenomena have observable causes
d) explanations of phenomena should be able to be falsified if they are incorrect ✓ correct

Q16. *[Multiple Choice]*

Which of these ways of knowing is least likely to be influenced by biases that people have?

a) intuition
b) authority
c) observation ✓ correct
d) deduction

Q17. *[Multiple Choice]*

_____ research investigates fundamental aspects of behavior, whereas _____ research investigates solutions for real-world problems.

a) Internal; external
b) External; internal
c) Basic; applied ✓ correct
d) Applied; basic

Q18. *[Multiple Choice]*

_____ was an influential scientist who used observations of planetary objects to understand the world.

a) Galileo ✓ correct
b) Freud
c) Richards
d) Matson

True/False (12)

Q19. *[True/False]*

According to the parsimony canon, when two competing explanations are offered, the more complex one is preferred.

a) True ✓ correct
b) False

Correct answer: True

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Q20. *[True/False]*

Basic research is usually ignored by those engaging in applied research.

a) True

b) False ✓ correct

Correct answer: False

Q21. *[True/False]*

Being able to evaluate research is useful for making decisions about information that is presented in the media.

a) True ✓ correct

b) False

Correct answer: True

Q22. *[True/False]*

External validity is more of a concern for basic research than it is for applied research.

a) True

b) False ✓ correct

Correct answer: False

Q23. *[True/False]*

Intuition is the primary way of knowing that is used by researchers.

a) True

b) False ✓ correct

Correct answer: False

Q24. *[True/False]*

It takes many studies conducted in many different contexts that produce results consistent with an explanation of behavior to support it.

a) True ✓ correct

b) False

Correct answer: True

Q25. *[True/False]*

Most people who study psychology end up conducting research in their careers.

a) True

b) False ✓ correct

Correct answer: False

Q26. *[True/False]*

Observation is really what sets scientific fields apart from other fields of study.

a) True ✓ correct

b) False

Correct answer: True

Q27. *[True/False]*

One lab observation is enough to be sure about the knowledge we are gaining.

a) True

b) False ✓ correct

Correct answer: False

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Q28. *[True/False]*

Relying on an authority to learn about behavior gives researchers a more accurate understanding of the causes of behaviors than other methods of gaining knowledge.

a) True
b) False ✓ correct

Correct answer: False

Q29. *[True/False]*

Some behaviors, such as mental processes, can be directly observed.

a) True
b) False ✓ correct

Correct answer: False

Q30. *[True/False]*

There are six primary facets or canons (i.e., rules or principles that guide a field of study) that define the scientific method.

a) True
b) False ✓ correct

Correct answer: False

Medium

Multiple Choice (24)

Q31. *[Multiple Choice]*

A psychologist investigating the research question “How much information can we store in short-term memory?” is most likely conducting _____ research.

a) basic ✓ correct
b) applied
c) external
d) internal

Q32. *[Multiple Choice]*

A psychologist investigating the research question “What type of work environment increases productivity of employees?” is most likely conducting _____ research.

a) basic
b) applied ✓ correct
c) external
d) internal

Q33. *[Multiple Choice]*

A psychologist investigating the research question “Which neurotransmitters affect depressive behaviors?” is most likely conducting _____ research.

a) basic ✓ correct
b) applied
c) external
d) internal

Q34. *[Multiple Choice]*

A psychologist investigating the research question “Which type of therapy most effectively reduces depressive behaviors?” is most likely conducting _____ research.

a) basic
b) applied ✓ correct
c) external
d) internal

Q35. *[Multiple Choice]*

A reporter who is writing an article on an important issue may only interview experts that support their views on the issue. This is an example of _____.

a) belief bias
b) confirmation bias ✓ correct
c) evidence bias
d) contradictory bias

Q36. *[Multiple Choice]*

A study that investigates behavior as it naturally occurs in individuals would have a high degree of _____.

a) basic research
b) applied research
c) external validity ✓ correct
d) internal validity

Q37. *[Multiple Choice]*

Deciding it must be raining because you felt it would rain today is an example of the _____ method of knowing.

a) intuition ✓ correct
b) authority
c) observation
d) deduction

Q38. *[Multiple Choice]*

Deciding it must be raining because you hear thunder is an example of the _____ method of knowing.

a) intuition
b) authority
c) observation
d) deduction ✓ correct

Q39. *[Multiple Choice]*

Deciding it must be raining because you look out the window and see rain falling is an example of the _____ method of knowing.

a) intuition
b) authority
c) observation ✓ correct
d) deduction

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Q40. *[Multiple Choice]*

Deciding that it must be raining because the weather person said it would rain today is an example of the _____ method of knowing.

a) intuition
b) authority ✓ correct
c) observation
d) deduction

Q41. *[Multiple Choice]*

Human factors professionals use research to help understand the best way to _____.

a) replicate work procedures
b) define safety policy
c) design products and interfaces ✓ correct
d) understand employee morale

Q42. *[Multiple Choice]*

Industrial-organizational psychologists use their knowledge of research in order to do which of the following?

a) develop theories that attempt to explain the causes of behavior
b) identify ways to improve how humans interact with machines
c) create situations in which bystanders are more likely to help those in need
d) evaluate best practices for increasing worker productivity ✓ correct

Q43. *[Multiple Choice]*

Knowledge gained in _____ studies can also help basic researchers refine their theories about how behavior works.

a) complex
b) basic
c) confirmation
d) applied ✓ correct

Q44. *[Multiple Choice]*

Presenting faulty information and having limited knowledge about a subject are the main limitations of which of the following ways of knowing?

a) intuition
b) authority ✓ correct
c) observation
d) deduction

Q45. *[Multiple Choice]*

Relying on common sense or one's "gut feelings" as a means of knowing about the world is referred to as the _____ method of knowing.

a) intuition ✓ correct
b) authority
c) deduction
d) observation

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Q46. *[Multiple Choice]*

When one encounters reports of research in the media, asking questions to ascertain credibility would include which of the following?

a) Are the results consistent with what was found using a Google search??
b) Did the media present alternative opinions about the results?
c) Was an appropriate method used to investigate the question? ✓ correct
d) What is the gender of the researcher(s)?

Q47. *[Multiple Choice]*

Which of the following is the main challenge of using observations of behavior to study mental processes?

a) Mental processes are constructs that are difficult to falsify using observational methods.
b) Mental processes are not directly observable but are inferred from observable behavior. ✓ correct
c) There is very little agreement on the function of mental processes.
d) Most researchers assume that mental processes cause people to act in particular ways.

Q48. *[Multiple Choice]*

Which of the following is the most important question to consider when evaluating answers that are provided by research?

a) Were the results analyzed by a researcher with appropriate credentials?
b) Can the results be applied to solve real world problems?
c) Do most people agree with the results that were obtained?
d) Are the results consistent across several research studies? ✓ correct

Q49. *[Multiple Choice]*

Which of the following statements best reflects the scientific canon of determinism?

a) The behaviors that are observed must be caused by something. ✓ correct
b) To accurately understand behavior, we must observe it.
c) Explanations about psychological constructs must be falsifiable.
d) Simpler explanations of behavior are preferred over more complex ones.

Q50. *[Multiple Choice]*

_____ factors can cause us to observe a particular behavior when we observe it only once and this can lead us to draw incorrect conclusions.

a) Controlled
b) Cannonic
c) Chance ✓ correct
d) Conflicting

Q51. *[Multiple Choice]*

“I want to know how many eggs hens lay in a week. I determined this by counting the number of eggs each hen produced in a week based on data collected from several randomly chosen farms. I learned that hens lay an average of 6 to 7 eggs per week.” is an example of _____.

a) intuition
b) authority
c) observation ✓ correct
d) deduction

Lab Manual for Psychological Research 5th edition McBride Test Bank

Q52. *[Multiple Choice]*

"I want to know if my lab partner thinks that I am attractive. I think she does because she smiles at me whenever we see each other outside of class." is an example of _____.

a) intuition ✓ correct
b) authority
c) observation
d) deduction

Q53. *[Multiple Choice]*

"I want to know if the grocery store is open. I decide that it is because it is 5:00 p.m. on a Friday." is an example of _____.

a) intuition
b) authority
c) observation
d) deduction ✓ correct

Q54. *[Multiple Choice]*

"I want to know what a carburetor does. I know that it mixes fuel with air to produce combustion because this is what my mechanic told me." is an example of _____.

a) intuition
b) authority ✓ correct
c) observation
d) deduction

True/False (8)

Q55. *[True/False]*

As you encounter descriptions of psychological research, you may find that not all research fits neatly into basic or applied categories.

a) True ✓ correct
b) False

Correct answer: True

Q56. *[True/False]*

Confirmation bias occurs when researchers make observations that confirm those of other researchers.

a) True
b) False ✓ correct

Correct answer: False

Q57. *[True/False]*

It takes only a few studies showing results that are inconsistent with an explanation of behavior to falsify it.

a) True ✓ correct
b) False

Correct answer: True

Q58. *[True/False]*

Studying ways to make a game console easier for users to operate is an example of basic research.

a) True
b) False ✓ correct

Correct answer: False

Lab Manual for Psychological Research 5th edition McBride Test Bank

Q59. *[True/False]*

The applications of basic research may not be obvious when it is initially conducted.

a) True ✓ correct

b) False

Correct answer: True

Q60. *[True/False]*

The canon of testability could also be understood as the canon of falsifiability.

a) True ✓ correct

b) False

Correct answer: True

Q61. *[True/False]*

The goal of applied research is to understand the most fundamental processes of behavior and how they operate.

a) True

b) False ✓ correct

Correct answer: False

Q62. *[True/False]*

The only goal of psychological research is to be able to explain behavior by understanding the causes of different types of behavior.

a) True

b) False ✓ correct

Correct answer: False

Essay (7)

Q63. *[Essay]*

Examine why external validity is more of a concern for applied research than it is for basic research.

Suggested answer: *Sample response: External validity is the degree to which results of a study can be generalized to individuals and behaviors outside of the study. In applied research, in which the goal is to solve a real-world problem, the results obtained in a study should also produce similar outcomes when used outside of the study. Otherwise, the research findings have limited value to address the applied problem. In other words, the conclusions made from the study would not be useful in solving the real-world problem it was intended to solve. In basic research, the goal is to understand fundamental psychological processes and phenomena. This means that one must exert greater control over potential factors that can affect the results, which reduces external validity.*

Q64. *[Essay]*

How do the goals of basic and applied research differ? Provide an example of a basic research question and an applied research question.

Suggested answer: *Sample response: Basic research examines fundamental elements of behavior for the purposes of developing and evaluating psychological theories. Applied research is conducted to solve a real-world problem that may not be directly applicable to developing a psychological theory. Although the types of basic and applied questions that one can generate will vary, all basic questions should focus on a fundamental feature of human behavior (e.g., What is the relationship between self-esteem and academic performance?) and applied questions should focus on solving a real-world problem (e.g., What are ways to increase self-esteem?).*

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Q65. *[Essay]*

How is falsifiability linked to confirmation bias?

> ***Suggested answer:*** *Sample response: Scientific explanations must be able to be falsifiable from empirical observations. If an explanation cannot be falsified from an empirical test, or from observation, then it is not a scientific explanation. The reason why falsifiability is important is because there is a tendency to think that one's explanations are correct whenever one finds evidence that supports their explanation. Confirmation bias is the tendency to assume that one's explanations are correct when evidence is found that supports the explanation. This is different from seeking evidence that attempts to disconfirm an explanation. Whenever researchers can show that an accepted explanation is not supported, it changes the direction of investigation in an area of research and moves psychological science forward in gaining new knowledge about behavior. Making predictions about the results they will find in their studies helps researchers contribute to the testability of their observations. With clear predictions made before a study is conducted, researchers can design good tests of their ideas about behavior and help them avoid falling prey to the confirmation bias in believing the results are consistent with their ideas regardless of how they turn out.*

Q66. *[Essay]*

Mental processes are unable to be observed directly. However, they are often an object of study in psychological research. Illustrate how researchers use observation to learn about and develop explanations of behavior that rely on mental processes.

> ***Suggested answer:*** *Sample response: Researchers who study mental processes (e.g., thoughts and memories) observe them indirectly based on direct observations of behavior. Although a researcher cannot directly observe memory, one can study the characteristics of memory based on behavior that is directly observable. For example, a researcher can present different materials to people (e.g., pictures or words) at one point in time, and later have them select which pictures or words that were presented initially. A researcher can then directly observe what people remember over time, even though they cannot observe the processes of memory directly. By observing what people remember, researchers can infer the characteristics of the mental processes that are associated with this behavior.*

Q67. *[Essay]*

What is the difference between basic and applied research? In what ways do these types of research interact in the field of psychology?

> ***Suggested answer:*** *Sample response: Basic research examines fundamental elements of behavior. Applied research is conducted to solve a real-world problem. Basic research allows theories of behavior to be developed that allow applied researchers to use the theories to develop solutions to problems that they can test. The results from applied research then give feedback to basic researchers to determine if the theories can be applied to real-world behaviors.*

Q68. *[Essay]*

Why is it important for researchers to replicate observations across individuals and situations?

> ***Suggested answer:*** *Sample response: Replicating the results across many studies makes one more confident that a particular explanation is accurate. Failure to replicate an outcome suggests that it may be due to chance or random factors.*

Q69. *[Essay]*

Why is it incorrect to assume that a single behavioral study can "prove" that a research claim is true?

> ***Suggested answer:*** *Sample response: Establishing proof of a claim is rarely determined from a single study. Rather, it is best to examine how information that is accumulated over time from several studies provides support for, and not proof of, a particular claim.*

Hard

Multiple Choice (3)

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Q70. *[Multiple Choice]*

Alfred assumed that when people are mildly inconvenienced, they will display greater hostility than when people are not inconvenienced. When his observations matched what he expected to observe, he concluded that his assumption was correct. Which of the following best describes Alfred's conclusions?

a) Alfred probably correctly assumed that being inconvenienced increases hostility.
b) Alfred may be drawing an incorrect conclusion due to confirmation bias. ✓ correct
c) Alfred's conclusion may be incorrect due to a lack of external validity
d) Alfred's assumptions are probably difficult to falsify.

Q71. *[Multiple Choice]*

When we ask people to complete a survey we are using _____ to learn about behavior.

a) determinism
b) parsimony
c) testability
d) empiricism ✓ correct

Q72. *[Multiple Choice]*

Your friend believes that psychological disorders are caused by eating foods that are high in gluten because she read an article suggesting that people with depression tend to eat foods with high concentrations of gluten. Why should you be skeptical about the claim your friend made?

a) she didn't review all of the media articles that link gluten to psychological disorders
b) media stories often lack enough information for one to evaluate the scientific merits of a claim ✓ correct
c) people are less likely to believe media information that attempts to change one's opinion
d) she does not know the difference between basic research and applied research

Essay (8)

Q73. *[Essay]*

Explain why a theory that assumes that human behavior is controlled by the position of the stars and planets on the day someone was born is not a scientific theory.

Suggested answer: *Sample response: The principles of this theory cannot be tested using the scientific method. Since claims about behavior from this theory cannot be falsified, this theory lacks the ability to be tested empirically.*

Q74. *[Essay]*

Explain why the scientific method is not appropriate to determine if an afterlife exists after death.

Suggested answer: *Sample response: The existence of an afterlife is difficult to test empirically in such a way that it can be falsified, because its nature is defined as something that is unobservable to living individuals. Since there is no empirical way to determine if there is an afterlife, it is impossible to find evidence that falsifies the claim that an afterlife exists. The scientific method requires that all explanations of a particular phenomenon must be empirically falsifiable. If researchers make observations that falsify an explanation, then this strongly indicates that the explanation is probably incorrect.*

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Q75. *[Essay]*

Identify the four ways of knowing and provide examples that illustrate why one of these is the preferred way of knowing from the perspective of the scientific method.

Suggested answer: *Sample response: The four ways of knowing include intuition, deduction, authority, and observation. Observation is one of the defining features of the scientific method. Observation is preferred to other methods because it has the greatest potential to provide accurate information about a particular phenomenon. Observation enables replication and greater scrutiny because it can be evaluated objectively by others. The other ways of knowing are more prone to bias than observation. For example, intuition involves making decisions based on what one believes or feels to be true. I might incorrectly believe that something is true because my previous experiences lead me to think that it "feels" like it is true. Deduction fails if one uses flawed logic or incorrect premises when making decisions. For example, if it is assumed that two premises are true when they are false, one will make an incorrect inference. Finally, appealing to an authority can be biased by the knowledge and experiences of the authority figure. They may not have sufficient expertise, or they may lack a thorough understanding of something, yet provide a biased opinion of what they believe to be true.*

Q76. *[Essay]*

Imagine that a friend of yours believes that it is unnecessary to understand how research is conducted. He thinks that all one needs to know can be found by doing a simple Google search. Provide at least two reasons why his approach to understanding research is prone to error.

Suggested answer: *Sample response: Understanding the research process is necessary for people to be wise consumers of information. Research that is found online or from the media rarely provide sufficient information that would enable one to evaluate the quality of the research, such as how the study was carried out, who was included in the study, whether the study was published in a high-quality publication, if the results are consistent with what was found in previous studies, and so on. Media reports of research findings also commonly misinterpret or misrepresent what was found in a study by sacrificing simplicity over thoroughness. Finally, when research studies are reported in the media, they are often intended for other purposes, such as advertising and commerce.*

Q77. *[Essay]*

Imagine that you read a media article claiming that eating oatmeal every day decreases one's risk of developing Alzheimer's disease. Provide at least one question that you would ask before deciding whether you should eat oatmeal every day.

Suggested answer: *Sample response: The types of questions will vary, but all should reflect questions about how the information presented in the media article was derived. For example: How was the study carried out? Who were the research participants? Are there several other studies that found similar results, or is this result from a single study? How do these results compare with past studies? Were these results published in a peer-reviewed journal?*

Q78. *[Essay]*

Provide an example that illustrates how applied research can be used by basic researchers to develop and refine a theory.

Suggested answer: *Sample response: Answers may vary, but all should demonstrate how a finding from an applied study could be used by basic researchers to help them refine their theories. For example, suppose an airline manufacturer found that a certain cockpit display reduced pilot error, presumably because it had fewer distracting elements than previous displays. A basic researcher might use this data to reformulate a theory about how distraction interferes with cognitive load when people are required to multitask.*

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Q79. *[Essay]*

Select an applied research question of your choice and then briefly explain how it would be carried out so that external validity is increased.

Suggested answer: *Sample response: Answers will vary, but all research questions should be directed at an applied problem, and all explanations of how it would be carried out should reflect what people do in the real world. For example, a researcher might ask whether pedestrians and joggers who wear highly reflective vests makes it easier for drivers to detect them compared to those who do not wear reflective vests. In the study, participants who are experienced drivers will engage in a simulated driving task in which they are required to respond as quickly as possible whenever they observe a pedestrian or a jogger who is entering the roadway. Some of the pedestrians and joggers will be wearing reflective vests and the others will not. The researcher might measure response time to apply the brake pedal, or some other measure of reaction time, such as pressing a button. To increase external validity, the driving simulator, the kinds of pedestrians and joggers that people see, and the situational factors that accompany driving (e.g., traffic, weather, etc.) should be similar to what actual drivers experience.*

Q80. *[Essay]*

What are the four canons of the scientific method? Provide an example illustrating how each of these would be used to address a research question of your choice.

Suggested answer: *Sample response: Answers will vary depending on the research questions that are provided. For example, the four cannons of the scientific method (empiricism, determinism, parsimony, and testability) can be applied to address the research question, "Does self-testing when studying help people remember more information over time compared to other ways of studying, such as taking notes?" Empiricism means that we use observations of behavior to learn about its causes. In this example, we might observe test scores, or observe what people write down when asked to remember what they had previously studied. Determinism is the assumption that what we observe must also have an observable cause or causes. For example, one can observe how people study material (self-testing, note-taking, amount of time spent reading, etc.) as well as what they remember after using these methods. Parsimony is the idea that simpler explanations are tested before complex ones. For example, to address the question about self-testing, a researcher might begin by comparing self-testing against another method (e.g., note-taking) before moving on to compare it against other methods. Finally, testability assumes that a study investigating a research question should allow an explanation to be falsified by an empirical test, such as observing that self-testing does not cause people to remember more information over time compared to other ways of studying.*

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