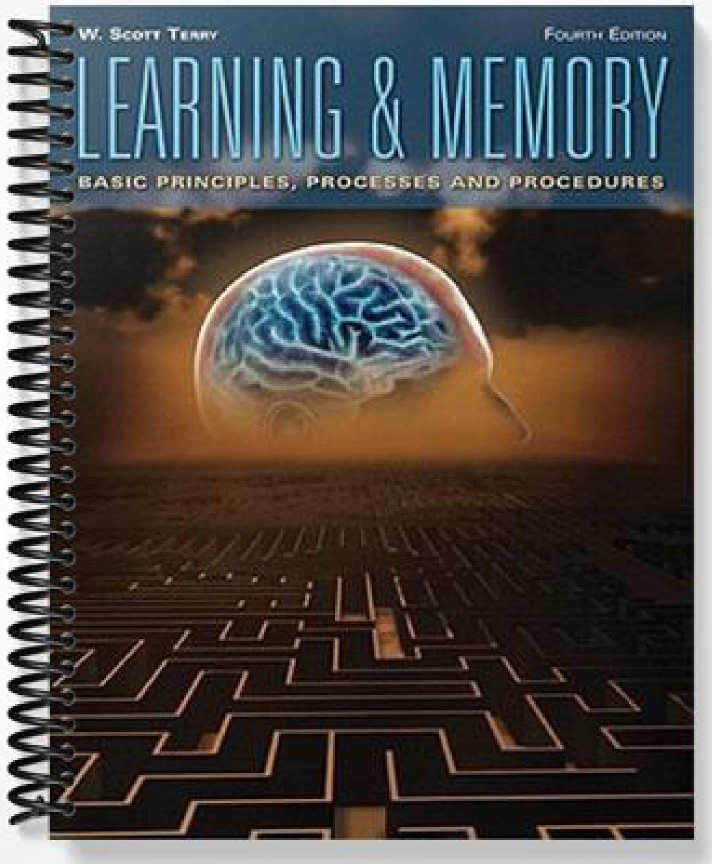
TEST BANK


W. Scott Terry
Fourth Edition
LEARNING & MEMORY
BASIC PRINCIPLES, PROCESSES AND PROCEDURES

Instructor's Manual and Test Bank

for

Terry

Learning and Memory
Basic Principles, Processes and Procedures

Fourth Edition

prepared by

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Contents

Preface

This Instructor's Manual/Test Bank has been prepared for use with Terry's "Learning and Memory: Basic Principles, Processes, and Procedures" (4^{th} Edition), and contains several features structured in such a way as to assist educators in the teaching of a course in Learning and Memory. Each chapter is divided into five sections: (a) an enhanced chapter outline, (b) issues/questions designed to stimulate class discussions, (c) an experiment that can be done in/out of class, (d) a listing of relevant internet sites, and (e) multiple choice questions.

The enhanced outlines convey the critical information in each chapter in a way that goes beyond a mere listing of important terms. Specifically, these outlines contain a great deal of detail concerning the material in each chapter, and are structured in such a way that would allow them to easily be used as lecture notes, or to supplement existing notes that an instructor may have.

The discussion starters are all items that I have used in my own teaching, and all have been well-received by my students. Some are more controversial than others (and perhaps need to be introduced in a delicate manner!), but they should all serve the purpose of livening-up class discussions and perhaps allowing students to see issues from a variety of perspectives.

The active experimentation sections are useful as either in-class demonstrations or out-of-class projects, intended to raise student interest and illustrate theoretical issues in a hands-on manner. Some can be done in a fairly short time frame, whereas others require a bit more work on the part of the student. All of the materials and instructions that are needed to conduct each experiment are contained within each activity, which makes these demonstrations relatively easy to implement, especially for students who may not have an extensive background in psychological research. Instructors should make sure, however, that students understand the ethical considerations of psychological research prior to engaging in these projects.

The internet sites focus on topics that are presented in each chapter. Some of the sites connect directly to the various learning and memory topics within each chapter, whereas others deal with issues that are extensions of topics presented in the text. In either case, the sites are well-suited for use as an addition to one's usual lecture notes, or as a way to encourage students to search the internet for other course-related topics.

The multiple choice questions vary in terms of their type, in the following manner. Questions that reflect information taken in a verbatim form from the text, and have a factual quality to them, are denoted with an "F" (for "factual"). Questions that require a higher level of processing, going beyond mere definitions and focusing on text material in a more conceptual manner, are denoted with a "C" (for "conceptual"). Finally, questions that require students to understand how material can be generalized and applied to real-world situations are labeled with an "A" (for "applied").

I would like to thank Scott Terry for allowing me to continue to develop the instructor's material for use with his excellent text, as well as Kate Motter at Pearson Education, Inc., for all of her help concerning the development of the fourth edition of this supplement. I would also like to extend an invitation to my fellow educators to feel free to provide me with any feedback concerning the material presented in this manual, including any suggestions about additions/improvements that could be made to this manual. Address any correspondence concerning this manual to me at the Department of Psychology, Lebanon Valley College, Annville, PA, 17003, or you can e-mail me at manza@lvc.edu. Good luck with your course!

Lou Manza

Chapter 1:
Introduction

ENHANCED OUTLINE

I. INTRODUCTORY PARAGRAPHS

A. Many facts and principles about learning and memory processes have been developed since the formal start of psychology in 1879.

B. These facts and principles have been developed at the same time that everyday individuals have accumulated “common-sense” based notions about the nature of learning and memory.

C. This book will attempt to merge the “common-sense” notions with the science of learning and memory. Some examples:

1. Spaced vs. Massed practice

2. Forgetting and Hypermnesia

3. Feedback and Performance

4. Do subliminal learning tapes actually work?

II. THE ORIGINS OF THE STUDY OF LEARNING

A. The philosophical movements of Empiricism and Rationalism in the 1600s-1700s, and the start of Evolutionary theory in the 1800s fostered a scientific interest in learning.

B. The field of Epistemology, in general, studies how knowledge is acquired.

1. Is learning due to nature (biological forces) or nurture (experienced-based elements)?

2. Descartes argued that some sources of knowledge can be innate, put into us by God.

3. John Locke and the Empiricists argued that all knowledge is derived from experience.

a. Empiricism was based on the premise that different laws of Association were responsible for how knowledge was acquired.

b. The law of Contiguity suggests that events occurring together in time are associated.

c. The law of Frequency argued that events that are repeatedly contiguous are associated.

d. The law of Similarity suggests that ideas that resemble one another come to be associated.

e. The law of Contrast argues that ideas that are dissimilar become associated together.

f. All of these laws function by way of "mental chemistry," which involves reflecting on existing ideas to produce a novel thought.

C. Darwin's "The Origin of Species," published in 1859, described how organisms evolved over the course of generations.

1. A critical notion in Darwin's work was how the process of adaptation allowed a species to evolve.

2. The connection of evolution to learning is that the capacity to learn evolved as an adaptive specialization.

a. Psychologists interpreted Darwin's work in the context of allowing an individual to learn, and adapt, during the course of one's lifetime.

D. Contemporary influences arising from early philosophical and biological ideas include biological preparedness for learning, which has been illustrated in the contexts of language acquisition and other specialized learning systems (such as phobia learning).

III. THE DEFINITION OF LEARNING

A. Learning is defined as a relatively permanent change in behavior, or behavioral repertoire, that occurs as a result of experience.

1. The changes in behavior may or may not be observable.

2. The types of behaviors that may be taken as evidence of learning include overt behavior of organisms, physiological responses, and verbal reports.

3. The changes in behavior may also not be readily noticed, as an experience may simply result in the potential for behavioral change, contingent upon proper environmental conditions.

B. Some behaviors that may seem as if they are due to learning are typically excluded from the formal definition of learning.

1. Care must be taken when behavioral changes are attributed to either biology or the environment; these factors tend to interact, making strict divisions between them difficult to see.

2. Such exclusions include changes in behavior due to physical, neural, and cognitive maturation.

3. Other exclusions refer to temporary fluctuations in behavior, including changes in arousal, fatigue, or motivation.

IV. THE LEARNING / PERFORMANCE DISTINCTION

A. Behavioral measures are sometimes inaccurate because the fail to show the difference between what subjects know and what they do: this is the Learning / Performance distinction.

B. The classic example of the Learning / Performance distinction is Tolman and Honzick's (1930) latent learning experiment.

1. In their experiment, Tolman and Honzick studied maze running ability in rats who were either a) never reinforced for running through a maze, b) always reinforced for running through a maze, or c) reinforced for maze running after going through a period where they were not reinforced.

2. Results revealed that learning ability was slow/nonexistent for rats who were not receiving any reinforcement, but once reinforcement was provided, rats who were previously not reinforced ran through the maze at a rate that was equal to, or faster than, those animals who always received reinforcement.

3. This "hidden" learning ability, revealed only when necessary, is what latent learning is.

C. Stereotype threat also illustrates how performance does not always correlate with underlying knowledge.

1. Presenting individuals with a certain negative stereotype may induce that individual to give in to the implied suggestion (e.g., informing an elderly

person that older people tend to be forgetful may result in that person being more forgetful than normal).

V. THE RELATIONSHIP BETWEEN THE TERMS "LEARNING" AND "MEMORY"

A. The terms "learning" and "memory" have , over the years, referred to different processes.

B. The term "Learning" has be used in reference to:

1. Conditioning and reinforcement tasks

2. Non-human animal subjects

3. Skills requiring repeated trials for acquisition

4. The unconscious conditioning of specific behaviors

C. The term "Memory" has been used in reference to:

1. Verbal recall tasks

2. Studies of human subjects

3. Material presented for study just once

4. The conscious recollection of previous experiences

D. A more specific approach to learning and memory would be to say that "Learning" refers to the acquisition of knowledge, whereas "Memory" deals with retaining and recalling the acquired knowledge.

1. Learning tends to be illustrated by learning curves.

a. Negatively accelerated curves show high amount of learning during the early portion of a training period, followed by relatively little improvement in later training episodes.

b. "S" shaped curves show little learning at first, followed by the standard negative acceleration curve.

c. Power curves illustrate learning as occurring in a constant manner across trials, with straight lines, not curves, representing the progress of a learning period.

2. Memory tends to be illustrated by forgetting curves.

a. These patterns tend to parallel learning curves, in the sense that when forgetting does occur, it happens to a greater extent at the start of a retention period, with the rate of memory loss slowing thereafter.

E. Since learning and memory seem to be dependent on one another, some have suggested that the effectiveness of learning is revealed by the level of retention that one exhibits.

VI. BASIC AND APPLIED RESEARCH

A. Basic Research seeks to understand the fundamental processes of learning and memory, and involves questions that are not always directly applicable outside of the laboratory.

B. Applied Research is relevant to answering specific, practical, problems.

C. Basic and applied research are not totally independent of one another, however, as they tend to feed off of one another to answer questions about behavior.

D. Research in the fields of learning and memory also tries to distinguish between common sense and common knowledge.

1. Although people have some accurate understandings of how learning and memory operate, many myths still exist.

2. Some of these myths concern the nature of amnesia, eidetic imagery, memory under hypnosis, and the role of forgetting.

3. Many people also believe that one's general memory ability can be improved via practice, but this is not supported by research.

a. People can improve specific memory skills (e.g., memory for names or address, random number sequences, etc.), but having a strong memory for a specific domain does not always transfer across other memory areas.

E. Another major area that is discussed in the context of basic and applied research is the use of animals in research.

1. Animals can be beneficial in the research process for several reasons:

a. The experiences of animal subjects before, during, and after an experiment can be more tightly controlled that those of human subjects.

b. Animals and human share an evolutionary past, allowing for the generalizability of learning principles across species.

c. Animals can be experimented on in ways that are not ethically possible with humans.

2. Animal research in learning and memory has had important consequences for humans, including:

a. the development of behavior therapies / biofeedback techniques

b. the control of cardiovascular and asthmatic conditions

c. psychoactive effects of drugs

d. the simulation of human behavior disorders

e. the identification of the neural bases of learning and memory

VII. CONCEPTUAL APPROACHES TO THE STUDY OF LEARNING

A. In a general sense, there are several broad approaches toward the study of learning.

1. The Functional Approach focuses on how learning and memory ability can aid in one's survival.

a. Understanding how different stimuli are associated can be used to successfully navigate one's environment, whereas lacking such knowledge could possibly interfere with the ability to survive.

2. The Behavioral approach emphasizes the relationship between observable behaviors, the antecedent conditions that precede them, and the consequences that follow them.

a. Radical Behaviorism argues against the study of inferred, internal states of an organism; "functional" explanations are preferred

3. The Cognitive approach takes a computer-based perspective toward the study of learning, arguing that internal representations are used to guide behavior

4. The Neuropsychological approach seeks to determine the underlying biological bases of learning and memory. Several important researchers made early contributions in this regard.

a. Lashley's lesion studies

b. Penfield's stimulation studies

c. Hydén's RNA studies

d. Modern brain imaging procedures (e.g., PET scans)

5. A newer approach to learning has focused on applying neuroscience research to educational practice; the gap between these 2 fields, however, can sometimes be too great for immediate application.

   a. Research on the "Mozart Effect" (ME) is one such application that has gotten a high degree of public exposure.

   b. Research on the ME found that college students boosted their spatial IQ score by a few points following exposure to classical music.

   c. This finding, when made public, led to increased sales of Mozart CDs, but additional research failed to replicate the effect.

DISCUSSION STARTERS

1. The classic nature-nurture issue is raised in Chapter 1, and this debate is an excellent source of discussion. The complexity of this issue can be explored via a variety of examples, although I have always found that controversial examples can lead to interesting in-class commentary. For example, is homosexuality innate, or a learned choice? If one argues for the nurture side, why might one choose to be homosexual when large portions of society have negative reactions to such behavior? Another example is intelligence--are we born with a certain potential, or can education increase one's potential? Can a negative environment diminish one's overall intelligence?

2. The topic of evolution can be explored via looking at how modern society has/has not accepted evolutionary theory as a valid explanation of human origins and behavior. Do students tend to support an evolutionary or creationist approach to human origins, and why? Why do people endorse empirically supported claims in many aspects of daily life (e.g., taking the correct dose of medication), yet reject science in other arenas (e.g., believing in a spiritually-based higher power)? Can students define the differences between scientific claims and religious dogma? Can these two approaches coexist within learning? Although this is a sensitive issue, when handled properly it can be extremely effective in illustrating the basic ideas of evolutionary theory as well as what separates scientific from pseudoscientific explanations of behavior.

3. Chapter 1 discusses Bandura's classic Bobo doll experiment. This study can be elaborated via a discussion concerning whether or not children model what they see on television, specifically aggression. Should children be permitted to view violent cartoons, such as classic Bugs Bunny and Road Runner shows? What about R-rated movies? How would students raise their own children in this regard? If any students already have kids, how do they regulate TV viewing?

4. The utilization of animals in research is explored in Chapter 1. What are students' beliefs about the ethics of animal research? Is it OK to use certain types of creatures (e.g., rats), but not others (e.g., dogs) in research? What about using humans as test subjects--would students volunteer for risky research (e.g., testing new vaccines, such as an AIDS injection, whose safety is not yet guaranteed)? If human subjects are needed for such research but volunteers are scarce, what can be done to continue the research--should prison inmates be forced to participate in such research?

5. Radical Behaviorists, such as B.F. Skinner, felt that cognitive approaches to behavior were not productive in explaining behavior, since thoughts cannot be observed. Is this still a valid perspective? Do students agree that learning should focus on observable behaviors, or is it acceptable to study unobservable processes? How can one be sure if an explanation concerning mental activity is accurate in the absence of direct observation?

6. The chapter discusses the controversy surrounding the Mozart Effect, which can be seen as a pseudoscientific idea. Some people are convinced of the validity of this effect, despite evidence to the contrary. Do students hold any beliefs that could be considered pseudoscientific (e.g., astrology, aliens, psychics, etc.)? How did these beliefs develop? What type of evidence would it take for students to abandon their pseudoscientific view for a more rational analysis of the same situation?

7. Research in neuroscience has investigated the phenomenon of imprinting, whereby an organism, soon after birth, forms a bond with their parent that can lead to enhanced learning ability throughout their life. In lower animals, this bond has been seen as being driven by biological forces. But what about within humans? Are we this dependent on early attachments to parents, or can humans learn easily when this bond might not exist (for example, adopted children who do not begin to interact with their adoptive parents until well after birth)?

ACTIVE EXPERIMENTATION

Chapter 1 discusses a variety of theoretical and philosophical ideas that form the core of modern approaches to learning and memory. One of these ideas concerns the philosophical debate over whether or not learning arises from genetic or environmental forces. Although this topic was debated long-before the formal start of psychology, many psychologists have joined in this debate. Some (e.g., John Watson, B.F. Skinner) have emphasized environmental influences, while others (such as Henry Goddard and Lewis Terman) have been in favor of hereditary elements mediating knowledge acquisition (Hergenhahn, 1997). This project will allow you to investigate this issue by comparing the learning and memory skills of people who share genetic qualities to those who do not, in an attempt to understand the origin of information processing ability.

1. This project requires that you select 10 individuals as participants. Half of these individuals, whom we'll call the "RELATED" group, must be members of the same family (no in-laws or adopted individuals, and one's mom AND dad can't both be used--they're not blood-related, technically; all subjects must be "blood-related"), while the other 5, whom we'll call the "UNRELATED" group, must not be related to one another, and must not be related to anyone in the first group.

2. The first task for all participants is to attend to a set of stimuli, seen in the paired-associate word list (individual words from Spreen & Schulz, 1966) shown below. The experimenter should read each word at the rate of 1 word/second, instructing each subject to simply memorize each word pair.

3. After all items have been presented, have each individual count backwards, out loud, by 3s, from the number 200 (e.g., 200, 197, 194, etc.), for one minute. This task serves as a distractor.

4. Once the distractor task is complete, verbally present each participant with the stem completion list, shown below (each stem is part of a paired-associate stimulus pair that was initially studied). Their task here is to complete each stem (in a verbal manner) with the word that they believe was associated with that stem on the initial study list. For each item, read each stem aloud, and then have the subject provide a verbal response to that stem (if a subject cannot recall anything for any particular stem, score it as an incorrect answer--they cannot skip items, or go back to previous items). Continue in this manner until all items have been presented.

5. The critical dependent variable is the percentage of correct responses made during the stem completion task. Once this score is obtained, you can use it to determine the degree to which one's ability to associate and recall stimuli is nature- or nurture-driven. One way to measure the possible genetic/environmental basis of an ability is to see how much scores within a family vary, compared to scores stemming from unrelated individuals. By this logic, family members, since they share genetic elements, should not differ as much in terms of the quality one is measuring, compared to unrelated individuals, who are likely to differ because they do not share as many genetic traits as related individuals. To determine the degree of variation for the stem completion scores from each group (RELATED vs. UNRELATED), you'll compute what's known as a standard deviation, using the following formula:

   Standard Deviation (SD) = $\sqrt{}$ ((A - [B^2 / C]) / C - 1)

   a. Now, this formula might look like a foreign language, but it's very simple to compute! An example helps. You are going to calculate the Standard Deviation for the stem-completion task score for each group (NOT for each individual!).

Paired-Associate Word List

1. tongue--event	8. adventure--burden	15. defense--passion
2. sailor--magazine	9. empire--brain	16. capital--dozen
3. bar--leather	10. anger--goat	17. factory--message
4. diamond--map	11. furniture--bottle	18. appearance--meaning
5. household--stamp	12. sheet--witness	19. colonel--pupil
6. railway--bread	13. midnight--rope	20. stroke--artist
7. substance--minister	14. prisoner--cousin	

Stem-Completion List

1. tongue--______	8. adventure--______	15. defense--______
2. sailor--______	9. empire--______	16. capital--______
3. bar--______	10. anger--______	17. factory--______
4. diamond--______	11. furniture--______	18. appearance--______
5. household--______	12. sheet--______	19. colonel--______
6. railway--______	13. midnight--______	20. stroke--______
7. substance--______	14. prisoner--______	

For example, to compute the stem completion task score Standard Deviation for the RELATED group, let's say that each of your 5 group members contributed the following scores.

Mom = 15, Grandpa = 14, Sister = 20, Brother 1 = 15, Brother 2 = 18

The "A" score is calculated by squaring each score, then adding the squared scores together. Therefore, in this example,

$A = 15^2 + 14^2 + 20^2 + 15^2 + 18^2 = 225 + 196 + 400 + 225 + 324 = 1370$

The "B" score in the formula is obtained by simply adding the 5 scores together. So, in this example,

$B = 15 + 14 + 20 + 15 + 18 = 82$

Finally, the C score is obtained by simply counting the number of scores in the group. In this case, we have 5 scores (one from each of the 5 subjects), so C = 5.

b. With the individual scores computed, you can now plug them into the formula, in the following manner (the √ is the square-root sign, meaning that the very LAST thing to do is take the square root of the number that is calculated within the formula).

$SD = \sqrt{}\,((A - [B^2 / C]) / C - 1) = \sqrt{}\,((1370 - [82^2 / 5]) / 5 - 1)$

$= \sqrt{}\,((1370 - 1344.8) / 4) = \sqrt{}\,(25.2 / 4) = \sqrt{}\,(6.3) = 2.5$

c. You'll calculate a Standard Deviation (SD) a total of two times--once for the five scores from the RELATED group, and then again for the five scores from the UNRELATED group.

6. In interpreting your data, the critical comparison to make is between the Standard Deviation scores for each group. The lower the SD score, the less variable and more similar the scores. As an example, let's say that from the example above, the RELATED group's SD = 2.5, while the UNRELATED group's SD for stem completion = 6.1. In this example, the RELATED group would have less variability in their scores.

7. In analyzing your own data, did the RELATED group show lower variability than the UNRELATED group? Was this relationship reversed? If the related group's scores are less variable, as theoretically predicted, is this due to genetic or environmental effects? Answer these and any other questions in drawing some conclusions about the origins of knowledge acquisition.

References

Hergenhahn, B. R. (1997). *An introduction to the history of psychology* (3rd ed.). Pacific Grove, CA: Brooks/Cole Publishing Company.

Spreen, O., & Schulz, R. W. (1966). Parameters of abstraction, meaningfulness, and pronunciability for 329 nouns. *Journal of Verbal Learning and Verbal Behavior, 5,* 459-468.

RELEVANT INTERNET SITES

1. **http://serendip.brynmawr.edu/exhibitions/Mind/EpistemologyoM.html**

This site contains ideas based on work created during the 1600s-1700s that discusses the epistemology of the mind and how such work connects to the historical/philosophical start of Experimental Psychology.

2. **http://www.media.mit.edu/**

This site contains information regarding the Media Lab at the Massachusetts Institute of Technology; relevant issues focus on the ways in which modern technology can play a role in how we learn.

3. **http://enews.lbl.gov/Education/ELSI/research-class-activity.html**

This site contains a classroom-based role-playing activity that is designed to explore a variety of issues surrounding the nature of basic and applied research.

4. **http://www.peta.org/**

This is the home page for the animal rights group People for the Ethical Treatment of Animals, and includes information on a variety of animal-experimentation issues.

5. **http://www.indiana.edu/~pietsch/split-brain.html**

This site contains information on split-brain surgery, as well as links to other neuropsychology articles/images.

6. **http://www.talkorigins.org/**

This newsgroup focuses on the debate between creationism and evolutionary theory.

7. **http://parenting-baby.com/Parenting-Baby-Music-Research/Music-Research.html**

This website features ideas related to how music impacts the brain during early development, including ideas related to the controversy-stirring "Mozart Effect."

MULTIPLE CHOICE QUESTIONS

1.1 Which of the following movements is not considered to have fostered an early interest in the investigation of learning processes? (a) evolutionary theory (b) rationalism (c) empiricism (d) existentialism

ANSWER: D QUESTION TYPE: C PAGE(S): 3-4

1.2 In response to a student's question concerning the origin of knowledge, a professor responds that our genetic endowment has very little to do with the knowledge we attain; experience is the sole way of learning. Which of the following individuals would most likely disagree with the professor's response? (a) Aristotle (b) Descartes (c) Locke (d) all of the above

ANSWER: B QUESTION TYPE: A PAGE(S): 3-4

1.3 After eating a recent meal of steak and potatoes, Jill became nauseous and dizzy. As a result of this occurrence, Jill refuses to eat this combination of food, as she believes she will become sick, once again, if she consumes these things. Jill's attitude toward steak and potatoes is most similar to the associative principle of: (a) contiguity (b) frequency (c) similarity (d) contrast

ANSWER: A QUESTION TYPE: A PAGE(S): 3

1.4 Joe needs to take a course in American History in order to graduate from college, and the course is taught by Professor Smith. Joe has a problem, however, because in the past 4 courses he has had with Professor Smith, he has always done poorly on exams and papers. As a result of these experiences, Joe now has an intense amount of anxiety related to anything connected with Professor Smith. Joe's anxiety can be most directly connected to the associative principle of: (a) contiguity (b) frequency (c) similarity (d) contrast

ANSWER: B QUESTION TYPE: A PAGE(S): 3

1.5 Locke's "Mental Chemistry" could best be defined as: (a) combining innate and experience-based knowledge to produce a new idea (b) combining the associative principles of contiguity, similarity, frequency, and contrast to produce a new idea (c) reflecting on previously acquired ideas to attain new knowledge (d) reflecting on the nature of old innate ideas to yield new innate ideas

ANSWER: C QUESTION TYPE: C PAGE(S): 3-4

1.6 A central theme of Darwin's "The Origin of Species" is: (a) individual members of species are identical, with little room for variation in behavior (b) genetic inheritance plays little or no role in adapting to environmental conditions (c) learning is influenced by the degree to which ideas are different from one another (d) individuals change over time in order to adapt to environmental demands

ANSWER: D QUESTION TYPE: F PAGE(S): 3-4

1.7 A common theme connecting Darwin's ideas on evolution to learning processes is that: (a) learning occurs via adaptation over the course of one's lifetime (b) there is a continuity of mental activity across different species (c) since different species are related via their evolutionary pasts, research on one species could be generalized to another species (d) all of the above

ANSWER: D QUESTION TYPE: C PAGE(S): 3-4

1.8 Modern approaches to learning theory, in regard to whether nativism, empiricism, or evolution provides the best explanation for behavior, suggest that plausible explanations about for learning are provided by: (a) nativism and empiricism, but not evolution (b) nativism and evolution, but not empiricism (c) empiricism and evolution, but not nativism (d) nativism, empiricism, and evolution

ANSWER: D QUESTION TYPE: C PAGE(S): 3-5

1.9 Learning can best be defined as: (a) a relatively permanent change in behavior, or behavioral repertoire, that occurs as a result of experience (b) a temporary change in behavior, or behavioral repertoire, that occurs as a result of experience (c) a relatively permanent change in behavior, or behavioral repertoire, that occurs as a result of genetic inheritance (d) a temporary change in behavior, or behavioral repertoire, that occurs as a result of one's physiological state

ANSWER: A QUESTION TYPE: F PAGE(S): 5

1.10 The theory that evolution has produced several distinct memory systems best illustrates: (a) Descartes's nativism (b) the nature-nurture interaction (c) the exclusive effect of the environment on behavior (d) socially learned aggression

ANSWER: B QUESTION TYPE: C PAGE(S): 5

1.11 The central question for the field of Learning is: (a) How do genetics influence behavior? (b) What role does the environment play in the development of mental processes? (c) How do we come to have knowledge? (d) Why do learning disabilities develop?

ANSWER: C QUESTION TYPE: F PAGE(S): 5-6

1.12 Which of the following could be considered valid ways to measure learning? (a) the rate at which an animal presses a bar in an experimental chamber (b) the degree to which one's respiration rate changes from one situation to another (c) the ability of an individual to recall material while completing an exam (d) all of the above

ANSWER: D QUESTION TYPE: A PAGE(S): 5-11

1.13 Which of the following is not demonstrative of learning? (a) possessing factual knowledge (b) the acquisition of a new skill (c) experiencing a surge in one's attentional ability following the consumption of a stimulant medication (d) feeling more competent after training, compared to before training

ANSWER: C QUESTION TYPE: A PAGE(S): 5-11

1.14 One's potential for learning could be demonstrated if: (a) acquired knowledge is used after it is initially obtained (b) acquired knowledge is used as it is obtained (c) acquired knowledge is used before it is obtained (d) none of the above

ANSWER: A QUESTION TYPE: C PAGE(S): 5-11

1.15 Which of the following changes in behavior are typically excluded from a formal definition of learning? (a) changes that are transient (b) permanent changes in behavior (c) changes in one's behavioral repertoire (d) none of the above

ANSWER: A QUESTION TYPE: F PAGE(S): 6-10

1.16 Bandura's "BoBo doll" experiment illustrated the distinction between: (a) physiological and affective changes in behavior (b) potential and actual changes in behavior (c) potential and maturational changes in behavior (d) actual and physiological changes in behavior

ANSWER: B QUESTION TYPE: C PAGE(S): 7-8

1.17 TRUE OR FALSE: Attributing a change of behavior to either biology or the environment isn't a false dichotomy. (a) True (b) False

ANSWER: B QUESTION TYPE: F PAGE(S): 8-9

1.18 Changes due to maturation are excluded from the definition of learning because: (a) they may arise from innate forces (b) they may involve neural growth that occurs at its own rate (c) they occur independent from one's experiences (d) all of the above

ANSWER: D QUESTION TYPE: F PAGE(S): 9-10

1.19 Which of the following is a maturation-based, as opposed to experience-based, change in behavior? (a) a rat's faster pace through a maze after 10 attempts through the maze (b) a decrease in one's anxiety level towards horror films after viewing one horror film per day for an entire year (c) developing aggressive tendencies after viewing models acting in an aggressive manner (d) bone growth

ANSWER: D QUESTION TYPE: A PAGE(S): 9-10

1.20 "Men can't cook." This is all that Jim heard for the week leading up to his first attempt at making Thanksgiving dinner for his family, despite the fact that he had plenty of experience cooking for these same people. When he finally attempted to cook the dinner, he panicked, and burnt the turkey. Such a result is a demonstration of: (a) latent learning (b) a forgetting curve (c) stereotype threat (d) performance dissociation

ANSWER: C QUESTION TYPE: A PAGE(S): 10

1.21 Learning is said to occur in the mind, or brain, because: (a) behavioral measures always correspond in a direct manner to what one knows and does (b) the mind controls everything (c) behavioral measures do not always correspond in a direct manner to what one knows and does (d) learning can never be observed

ANSWER: C QUESTION TYPE: F PAGE(S): 10-11

1.22 Latent learning occurs when a behavioral change: (a) is observed at the time of initial learning (b) is not observed until some time has passed between initial learning and demonstration of that learning (c) is never observed (d) none of the above

ANSWER: B QUESTION TYPE: F PAGE(S): 10-11

1.23 In the past, the term "learning" has been used in reference to: (a) conditioning and reinforcement tasks (b) verbal recall tasks (c) the conscious recollection of past experiences (d) material presented for study on one occasion

ANSWER: A QUESTION TYPE: F PAGE(S): 11-14

1.24 In the past, the term "memory" has been used in reference to: (a) conditioning and reinforcement tasks (b) skills requiring repeated trials for acquisition (c) the conscious recollection to past experiences (d) none of the above

ANSWER: C QUESTION TYPE: F PAGE(S): 11-14

1.25 Professor Smith wants his graduate students to determine how young children retrieve information, and determine if such retrieval differs from retrieval methods used by adults. The students should focus on: (a) conditioning and reinforcement tasks (b) skills requiring repeated trials for acquisition (c) the conscious recollection of past experiences (d) the manner in which new information is encoded

ANSWER: C QUESTION TYPE: A PAGE(S): 11-14

1.26 Schmidt and Bork argue that learning and memory (a) are entirely separate from one another and cannot be studied together (b) measure the same thing (c) cannot be studied because they cannot be observed (d) exist along a continuum where one's degree of memory depends on one's level of learning

ANSWER: D QUESTION TYPE: C PAGE(S): 11-14

1.27 When one learns very quickly at the start of a training period, but the amount of learning slows sown during later trials, what type of learning curve is produced? (a) an "S" shaped curve (b) a positively accelerated curve (c) a power curve (d) a negatively accelerated curve

ANSWER: D QUESTION TYPE: C PAGE(S): 12-13

1.28 The rats in Dr. Smith's experiment on maze running took a few trials before they started to show any learning ability, although this "slow" early period was followed by a dramatically quick improvement in performance, followed by a slowing down of learning. This data pattern suggests which of the following types of learning curves? (a) an "S" shaped curve (b) a positively accelerated curve (c) a power curve (d) a negatively accelerated curve

ANSWER: A QUESTION TYPE: A PAGE(S): 12-13

1.29 If subjects in a learning experiment improved by the same amount over each of 20 trials, which of the following learning curves would best illustrate the nature of subjects' learning? (a) an "S" shaped curve (b) a positively accelerated curve (c) a power curve (d) a negatively accelerated curve

ANSWER: C QUESTION TYPE: C PAGE(S): 12-13

1.30 John has just completed a statistics course at the college he attends. Assuming that a classic "forgetting curve" can predicts the rate at which John will lose the information he acquired during the course, the time period that would likely see the smallest degree of forgetting would be: (a) 1 day after the course has ended (b) 1 week after the course has ended (c) 1 month after the course has ended (d)1 year after the course has ended

ANSWER: D QUESTION TYPE: A PAGE(S): 12-13

1.31 Which of the following best illustrates "Basic Research"? (a) a telephone company decreases the number of digits in their phone numbers because research shows that people cannot retain the 7 numbers that are currently used (b) teachers are asked to punish one group of students when they behave poorly, and ignore a second group demonstrating the same behaviors, in order to determine which method is most effective at classroom management (c) a scientist measures the speed at which an individual responds to the question "Is 'kraght' a real word?" (d) a psychiatrist prescribes an antidepressant medication to one of her patients to determine if the patient's depression is biological in nature

ANSWER: C QUESTION TYPE: A PAGE(S): 14-17

1.32 Which of the following fails to illustrate "Applied Research"? (a) a telephone company decreases the number of digits in their phone numbers because research shows that people cannot retain the 7 numbers that are currently used (b) teachers are asked to punish one group of students when they behave poorly, and ignore a second group demonstrating the same behaviors, in order to determine which method is most effective at classroom management (c) a scientist measures the speed at which an individual responds to the question "Is 'kraght' a real word?" (d) a psychiatrist prescribes an antidepressant medication to one of her patients to determine if the patient's depression is biological in nature

ANSWER: C QUESTION TYPE: A PAGE(S): 14-17

1.33 Basic Research: (a) always has obvious connections to everyday behavior (b) is conducted without any regard for practical application (c) is directly related to answering specific, practical problems (d) is sometimes conducted without knowing its application

ANSWER: D QUESTION TYPE: F PAGE(S): 14-17

1.34 Applied Research: (a) has connections to everyday behavior (b) is conducted without any regard for practical application (c) is sometimes conducted without knowing its application (d) none of the above

ANSWER: A QUESTION TYPE: F PAGE(S): 14-17

1.35 In the 1970s, Ulric Neisser criticized psychology for its: (a) being too ecologically realistic (b) overemphasis of lab-based memory research (c) overemphasis on studying memory in naturalistic settings (d) failure to validate Banaji and Crowder's ecological realism

ANSWER: B QUESTION TYPE: F PAGE(S): 16

1.36 Which of the following is considered a “memory myth”? (a) amnesia involves extensive forgetting of the past (b) eidetic imagery ability is more likely to be seen in children, as opposed to adults (c) having a strong memory for a particular skill does not guarantee having a strong memory for other skills (d) hypnosis is not a very effective memory enhancer

ANSWER: A QUESTION TYPE: C PAGE(S): 17-18

1.37 Which of the following is not considered a “memory myth”? (a) amnesia involves extensive forgetting of the past (b) eidetic imagery ability is more likely to be seen in children, as opposed to adults (c) developing a strong memory for random number sequences enhances memory ability within other skill areas (d) hypnosis is a very effective memory enhancer

ANSWER: B QUESTION TYPE: C PAGE(S): 17-18

1.38 Why is it argued that forgetting is NOT a weakness of memory? (a) Forgetting allows for the separation of new and outdated information (b) Forgetting promotes survival when useless information is discarded (c) A and B are both correct (d) neither A nor B are correct

ANSWER: C QUESTION TYPE: C PAGE(S): 18

1.39 Animals are used as subjects in learning experiments because: (a) some procedures can be used with animals, but not humans, for ethical reasons (b) the genetic background of animals can’t be controlled, which mimics human subjects (c) the experiences of animal subjects, during experiments, cannot be tightly controlled (d) all of the above

ANSWER: A QUESTION TYPE: C PAGE(S): 18-19

1.40 Which of the following statements is false? (a) some procedures can be used with animals, but not humans, for ethical reasons (b) the genetic background of animals can be controlled, which deviates from human subjects (c) the experiences of animal subjects, during experiments, cannot be tightly controlled (d) humans and animals have a similar evolutionary history

ANSWER: C QUESTION TYPE: C PAGE(S): 18-19

1.41 Animal research has contributed to the study of human behavior in the sense that animal research has allowed for insights into (a) the simulation of human depression (b) the development of biofeedback techniques (c) the identification of brain-based learning and memory pathways (d) all of the above

ANSWER: D QUESTION TYPE: F PAGE(S): 18-19

1.42 Mary has learned, through her own experiences, as well as via conversations with other people, that travelling, late at night, through certain portions of her hometown, can be dangerous, as many crimes are committed in those areas. Therefore, to avoid being a victim of such crimes, she avoids those dangerous areas at all times. This approach can be seen as illustrating one of the core ideas of which approach to learning? (a) functional (b) behavioral (c) cognitive (d) neuroscience P. 19

ANSWER: A QUESTION TYPE: A PAGE(S): 19-22

1.43 Dr. Smith is beginning an experiment that is designed to assess the degree to which grammar-school students understand the relationship between engaging in violent behavior and the consequences of such violence. Dr. Smith's approach seems most congruent with which approach to the study of learning? (a) behavioral (b) cognitive (c) neuropsychological (d) humanistic

ANSWER: A QUESTION TYPE: C PAGE(S): 19-23

1.44 Dr. Smith wants to conduct an experiment that will study the degree to which a child's internal representation of an event is similar to an adult's representation of that same event. Dr. Smith's approach seems most congruent with which approach to the study of learning? (a) behavioral (b) cognitive (c) neuropsychological (d) humanistic

ANSWER: B QUESTION TYPE: C PAGE(S): 19-23

1.45 Dr. Smith is studying which parts of the brain are essential for rats to learn how to run through a maze. A critical element of this research involves lesioning rats' brains before and after maze running to see if the lesion has any effect on behavior. Dr. Smith's approach seems most congruent with which approach to the study of learning? (a) behavioral (b) cognitive (c) neuropsychological (d) humanistic

ANSWER: C QUESTION TYPE: A PAGE(S): 19-23

1.46 Which of the following is not a basic tenet of the behavioral approach to learning? (a) studying the relationship between observable behaviors (b) studying the environmental stimuli that produce behaviors (c) studying how information is encoded and retrieved (d) measuring the degree to which consequences shape behavior

ANSWER: C QUESTION TYPE: F PAGE(S): 19-23

1.47 Dr. Jones argues that a rat's motivation to run through a maze is dependent upon the rat's expectancy of receiving a reward upon completion of the maze. Which of the following approaches would most likely dispute the inclusion of such an internal, motivational state of an organism? (a) cognitive (b) radical behaviorism (c) none of the above

ANSWER: B QUESTION TYPE: C PAGE(S): 19-23

1.48 Which of the following best illustrates a functional explanation of behavior of the type advocated by radical behaviorists? (a) "Punishing a child in one context causes the child to expect punishment in many contexts." (b) "An organism's desire to escape an electric shock motivates bar-pressing behavior." (c) "Drinking alcohol causes one to lose the ability to think rationally." (d) none of the above

ANSWER: D QUESTION TYPE: C PAGE(S): 19-23

1.49 "The goal of psychological research should be to predict and control behavior on the basis of knowledge of the antecedents of a behavior, the behavior itself, and the consequences of a behavior." A researcher adhering to which of the following approaches to learning would be most likely to make such a statement? (a) behavioral (b) cognitive (c) neuropsychological (d) humanistic

ANSWER: A QUESTION TYPE: A PAGE(S): 19-23

1.50 The impact of the field of computer science can be seen most directly in which of the following approaches to learning? (a) humanistic (b) cognitive (c) neuropsychological (d) behavioral

ANSWER: B QUESTION TYPE: C PAGE(S): 19-23

1.51 Dr. Smith is studying memory ability via observing the rate at which glucose is metabolized within different brain regions. Such a technique is central to the neuropsychological approach to learning dealing with: (a) lesions (b) RNA levels (c) PET scans (d) brain stimulation

ANSWER: C QUESTION TYPE: A PAGE(S): 21-22

1.52 The Mozart Effect claims to: (a) boost overall intelligence throughout a person's lifetime (b) cause male brains to become specialized for musical skills (c) temporarily boost language skills (d) temporarily boost spatial skills

ANSWER: D QUESTION TYPE: F PAGE(S): 22-23