

Test Bank for Human Memory 4th Radvansky

INSTRUCTOR'S MANUAL AND TEST BANK

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Human Memory

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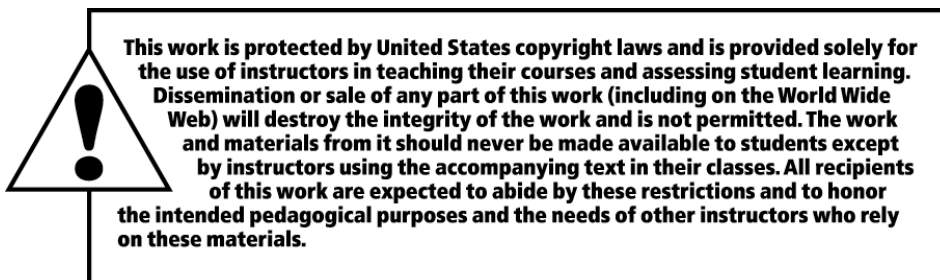
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Syllabus Ideas

This text is organized for a standard 15–16 week course, with periodic exams occurring at major breaking points in the series of topics. However, this text can also be used under different circumstances where a complete and exhaustive overview of the various topics in the text is not warranted. Here are some suggestions of selections of chapters that you might find useful in designing your own course. A brief course designed to cover the very basics of memory would include:

Chapter 3: Methods and Principles
Chapter 4: Sensory and Short-Term Memory
Chapter 7: Episodic Memory
Chapter 9: Semantic Memory

An intermediate course, with limited amounts of time but the latitude to cover a wider range of subjects, would include:

Chapter 1: Overview and History
Chapter 3: Methods and Principles
Chapter 4: Sensory and Short-Term Memory
Chapter 5: Working Memory
Chapter 6: Nondeclarative Memory
Chapter 7: Episodic Memory
Chapter 9: Semantic Memory
Chapter 10: Formal Models of Memory
Chapter 11: Autobiographical Memory
Chapter 12: Memory and Reality
Chapter 14: Metamemory
Chapter 16: Amnesia

A shorter, neurologically oriented course would include:

Chapter 1: Overview and History
Chapter 2: Neuropsychology of Memory
Chapter 3: Methods and Principles
Chapter 4: Sensory and Short-Term Memory
Chapter 5: Working Memory
Chapter 6: Nondeclarative Memory
Chapter 7: Episodic Memory
Chapter 9: Semantic Memory
Chapter 11: Autobiographical Memory
Chapter 15: Development
Chapter 16: Amnesia
Chapter 17: Other Conditions that Affect Memory

A more applied psychology oriented course could include the following:

- Chapter 1: Overview and History
- Chapter 3: Methods and Principles
- Chapter 4: Sensory and Short-Term Memory
- Chapter 5: Working Memory
- Chapter 6: Nondeclarative Memory
- Chapter 7: Episodic Memory
- Chapter 8: Memory for Space and Time
- Chapter 9: Semantic Memory
- Chapter 11: Autobiographical Memory
- Chapter 12: Memory and Reality
- Chapter 13: Memory and the Law
- Chapter 14: Metamemory

Finally, a shorter course designed to build on the basics of an existing cognitive psychology course, without too much overlap with previously covered material, might include:

- Chapter 3: Methods and Principles
- Chapter 5: Working Memory
- Chapter 6: Nondeclarative Memory
- Chapter 8: Memory for Space and Time
- Chapter 10: Formal Models of Memory
- Chapter 11: Autobiographical Memory
- Chapter 12: Memory and Reality
- Chapter 13: Memory and the Law
- Chapter 14: Metamemory
- Chapter 15: Development
- Chapter 16: Amnesia
- Chapter 17: Other Conditions that Affect Memory

Whichever model you choose for your class, whether it is one of these, or some other of your own design, this text is broad enough and flexible enough to cover most of your needs.

Chapter 1: Overview and History

Instruction Tip: At the beginning of each class period, spend time asking questions of the class, calling on different students. This will serve as a review period for the students, helping them to learn the information. It will also provide an opportunity for you to identify concepts that were not adequately communicated in a previous lecture. Having students answer questions will help you to learn their names and improve the learning experience for them. Finally, when asking multiple questions, try not to let a given student answer more than one question to keep those eager beavers from dominating the class discussion.

Discussion Topics:

How are the definitions of memory and learning given in the text similar to or different from the students' own understanding of these terms? How are these terms used differently than in other areas of psychology?

What does the vast variety of metaphors for memory tell students about the ease of studying human memory from an objective perspective? What are the limits of science when it comes to understanding human memory? What aspects of human memory are nearly impossible for science to probe?

Given the long history of interest in human memory, why was a systematic study of memory so long in coming? What scientific discoveries or ways of thinking were critical for the objective study of memory?

How valid do students think Ebbinghaus's use of nonsense syllables is for the study of memory? How does Ebbinghaus's approach of memory compare and contrast with that of Bartlett?

In what ways is the modern study of memory an extension of behaviorist approaches to experimental psychology? How revolutionary was the cognitive revolution? What sort of changes would the students expect to see in experimental psychology research of memory over the next twenty to thirty years?

How well does the modal model of memory map on to students' intuitions of their own memories? How appropriate does it seem to divide memory into different systems? What problems can students find with this simple model of memory?

Chapter 2: Neuropsychology of Memory

Instruction Tip: Neuropsychology can be daunting to some students. Prepare the lecture with many examples of images from the various neuroimaging techniques. The more of these that the students see, the more comfortable they will be with the topic. Also, have a number of figures showing the different locations of the various parts of the brain as they are discussed. Do not hesitate to show the location of a structure multiple times during the course to help remind students about its size, shape, and location.

Discussion Topics:

What does it mean for something to be an emergent property? What other examples of emergent properties can the students think of? What does the principle of an emergent property mean for the field of artificial intelligence?

Why is it important to understand neural structure? How can such tiny things have such a big impact?

How do the different parts of the brain seem to work together to produce memory? What does this mean for other animals that have different types of brains?

What do the students find exciting or interesting about the different neurological imaging techniques? How do they feel about the ability to peer into a living person's brain? What do they think of the idea of memory research "going neuroscience"?

Demonstration

A useful demonstration on this topic would be to arrange for the class—or at least a small section of it—to visit a local imaging center. There, the students could see the equipment used to record brain activity and perhaps look at some images that have been created. Short of this, this topic provides an opportunity to present various types of images from these different techniques as slides to the class.

Chapter 3: Methods and Principles

Instruction Tip #1: Have the class break down into a number of smaller discussion groups, each with a simple problem about memory to solve. The task for each group would be to devise ways of assessing that idea, taking into account each of the different factors that can influence research on memory that are discussed in the chapter.

Instruction Tip #2: Because this is a class about memory and some basic concepts about memory have been introduced at this point, it would be helpful to directly provide the students with tips about what they can do to improve their learning (i.e., minimize encoding specificity, deeper processing, spaced practice, mnemonics, etc.).

Discussion Topics:

Why is it beneficial to do experiments instead of just using our powers of reason? What are the values and weaknesses of the different ways of collecting data?

How do the different ways of learning information, intentional or incidental, relate to the different types of information we need to learn every day, or that we can remember from our lives? How often do the students use the various ways to improve memory that are discussed in the chapter? What are some of the ways that these ideas can be applied to their own everyday experiences?

Sometimes people feel they do better on multiple choice tests than essay tests, or vice versa. What are some of the ways that recall and recognition are used in these various types of tests that might lead people to these conclusions?

Memory is often used in a social context. How do the discussions of collaborative inhibition and collaborative facilitation resonate with students' own experiences? Are there any other ways that the society we live in and interact with affects our memories?

Demonstrations

Various reports of scientific or pseudoscientific studies are reported in the media daily. Have each student gather a report of a study from a newspaper, a magazine, or the Internet. Then have each student present the study to the class, describing how the methods are reported, the information that is left out, and the limitations of how the study can be evaluated based on the amount and type of information presented in the popular media.

Chapter 4: Sensory and Short-Term Memory

Instruction Tip: As an alternative to participating in experiments, students could be asked to submit summaries of current articles on the topic of memory. The advantage to the students is that it exposes them to research in detail, and helps them to understand where the ideas in the text and lecture come from. The advantage for the instructor is that students will tend to gravitate towards topics that interest them, and they may find papers that might otherwise be overlooked. These more interesting findings (from the students' point of view) can then be integrated into future lectures, making for a more engaging class experience.

Discussion Topics:

What would life be like without sensory registers? How do these "little" forms of memory have a big impact?

What is the value of anorthoscopic perception studies? How much of our visual world must be inferred based on what we remember?

What do the studies on change detection tell us about our mental contact with physical reality?

How can students use their knowledge about the capacity and duration of short-term memory to improve their own lives? In what ways do these limits affect our interaction with the world? Is there any advantage to processing a limited set of information at once?

What implications do findings of interference as a cause of forgetting in our lives have for how we use our short-term memories? For example, how does this suggest we should study? What do Sternberg's findings about the search through short-term memory suggest about our awareness of our own memory processes? How does this relate to the need to do scientific studies of memory?

How can knowledge about the serial position curve help us remember and do better on a test of our memory?

Why are there so many theories of serial order memory? Does this mean that serial order memory is a complex process, and why should this be so?

Demonstrations

The limits on the capacity and duration of short-term memory can be pretty academic until one is faced with the problem of having to actually remember a set of information. For a fun exercise, give students various memory span tests in class, such as letter and word spans, to show how amazingly little a person will remember. At some point, throw in some sets that can be easily organized into meaningful units to illustrate the principle of how chunking can be used to circumvent some of these apparent limits.

Chapter 5: Working Memory

Instruction Tip: The students will have a variety of interests in sports, intellectual activities, music, and so forth. One way of engaging their interest in the subject material and helping them understand the primary points of interest is to have them link up what they are learning with their interests. For example, a person interested in football might try to discuss how the phenomenon of representation momentum might influence a person's performance. Alternatively, the topic of boundary extension can be explored by using a person's interest in film.

Discussion Topics:

Why is it useful to divide working memory into different components? Why not just have a single short-term/working memory system?

What are some of the important ways that idea of working memory differs from the idea of short-term memory? Is it still valuable to retain the short-term memory concept after the idea of a working memory is introduced?

How do the various aspects of working memory discussed in the chapter come into play in one's everyday life?

There have been some explanations about how the structure of the phonological loop can get a song stuck in one's head. Ask the students to see if they can figure out why this might happen based on what they've read in the chapter. Does this theory of working memory provide any insight on how to get out of this situation?

Short-term and working memory span scores have been used throughout the years as components of intelligence tests, and have correlated with IQ scores. Why might this be the case? What is there to intelligence that extends beyond these span scores?

Demonstrations

To help illustrate the fact that people must actively think about information in working memory and that there are serious limitations to this, students can be given tasks in class demonstrations that tap these abilities. For example, the complex span tasks described in the chapter could be given in class. Alternatively, people could be asked to hold information in working memory while doing distractor tasks that interfere with various pairs of working memory. People could do articulatory suppression to show the influence of the phonological loop, figure tracing for the visuo-spatial sketchpad, and random number generation for the central executive. A final idea is that people could be given logical syllogisms to solve. This involves actively keeping track of information, and people can see how they make errors from time to time because they are taxing their working memory abilities.

Comment [W1]: Au: Parts, or okay?

Chapter 6: Nondeclarative Memory

Instruction Tip: It helps students organize and remember information to have a roadmap of where they are going. One way to accomplish this is to have a set of questions to be answered at the beginning of class; these questions will help the students better understand the significance of what they are learning.

Discussion Topics:

How much of who we are, how we think, and how we act is governed by our unconscious memory processes? What are some examples from daily life?

When people go to college, they often change in subtle ways based on implicit learning of what is going on around them. What are some examples that students may become aware of if they introspect on this idea?

The domain of classical conditioning is off-putting to many students because it is hard to relate to their own lives. Have the students spend some time thinking of various behaviors of their own that have been classically conditioned over time.

How does the mere exposure effect manifest itself in our daily lives? How does the advertising industry capitalize on this? How does the entertainment industry use it? How do politicians use it?

How can the students' new knowledge of skill acquisition be used to figure out how to make better experts? Can they use their new declarative knowledge of skills to improve their nondeclarative skills?

What are the students' reactions to the ideas presented about learning under anesthesia? What are the consequences for our understanding of how the brain and memory work if such learning were to exist?

Demonstrations

People are often changed without an awareness of the change. One of the changes that can occur is a shift in speech patterns when people move to a new location. Some students may notice that

Comment [W2]: Au: Okay?

they speak differently when they are at school than they do at home. Ask how many students have had this experience, and ask them to describe other circumstances where they have come to be aware that their behavior and/or thinking has been changed, as well as whether they were aware of the change as it was occurring.

Chapter 7: Episodic Memory

Instruction Tip: The topic of episodic memory is inherently oriented around personal memories. This would be a very good time to further engage the class by asking for examples from their own memories that would fit the topic under discussion. This will also help deepen the students' understanding of the concepts.

Discussion Topics:

Have the students discuss various circumstances in which they were reminded of an event. This can be by being in a specific location, hearing a song, smelling or tasting something, or some other, similar process. Have them try to relate this to the topic of episodic cuing.

Given the nature of serial position effects in memory, have the students discuss the relevance of this information for things such as witnessing a crime, remembering an event at a football game, remembering eating a meal, and so forth.

What is the importance of context-dependent memory effects for various ways that memory is used in study for class, remembering an event for legal purposes, or family get-togethers?

What are the implications for the findings that remembering causes forgetting? How can students take this information and help themselves remember more information, rather than less?

How does the chapter's discussion of practice effects as well as distinctive and relational processing influence how students think that the educational system should be set up, and how would they want to alter the system if they could?

Demonstrations

To illustrate the influence of organization and distinctiveness, the class can be given information to remember. For the principle of organization, the classic paragraph on washing clothes could be read and students asked to recall this passage: first without the title, and then with the title. To illustrate the principle of distinctiveness, lists of twelve words could be read in which all of the words are from a common semantic category except one, which is from a different category. People should be much more likely to remember the distinctive item.

Chapter 8: Memory for Space and Time

Instruction Tip: It is not unusual for students to know and understand material without ever communicating this knowledge in a class discussion. Arrange some way to pick out students at random to answer questions. If they know they will be randomly called upon, they will not feel

like you are picking on them, and it will give them an opportunity to show you that they understand the course materials.

Discussion Topics:

What are some of the practical applications for the knowledge that has been learned about how people represent space in memory? How would a navigation system be designed to take these qualities into account?

Given the distortions that are observed in people's memory for space, how would this be expected to affect the blind?

Have the students noticed any of the gender differences mentioned in the text? Why do they think that men and women may differ in how they use mental maps?

Why is our memory for space so good and our memory for time so poor?

Why do we need so many ways to figure out when things happened? What does this say about our experience of time? How important is it to remember when things happened?

A number of ways of thinking about memory for space and time are oriented around the idea that multiple sources of knowledge are used in memory retrieval. What does this need for multiple types of memory traces mean about how memory functions beyond the domains of time and space?

Demonstrations

To illustrate the operation of memory for time, keep a diary of events that occurred in class throughout the semester, events of which everyone attending lecture would be aware. Present the class with a list of these events and ask students to date them; these reports can then be used to illustrate a number of principles about memory for time.

Chapter 9: Semantic Memory

Instruction Tip: In addition to the text, a course packet of readings from recent journals can also be beneficial. This provides a number of advantages to students. First, it exposes them more directly to scientific research, rather than leaving them to get information through a mass media filter. Also, it provides students with an in-depth look at one of the topics that is being studied in the class. Finally, it helps expose students to the writing style that is needed for scientific reports, a skill that many of them will need as they progress through the psychology major.

Discussion Topics:

Priming is discussed in the text using paradigms such as lexical decision. Are there other, more everyday ways that people experience or show the effects of priming in how they behave and think?

How useful is the category of semantic memory, especially given that different types of semantic information are represented by different parts of the brain?

Given that human categories do not follow the necessary and sufficient rules of the classical view, what does this mean about humans' abilities to reason and understand their world? Are we victims of how we make our categories?

The book mentions stereotypes and prejudice as one potentially undesirable outcome of categorization. What other negative consequences can categorization have? Is it worth it for what having categories buys us?

Schemas and scripts both help and harm memory. Have the class discuss other instances in which these semantic memory representations affect their thinking. How can they take advantage of what they know about schemas and scripts to improve how they use their own memories?

How general are the semantic illusions that are discussed in the text? That is, how often is a person's understanding of the world distorted by inaccuracies in the general knowledge store?

Demonstrations

To illustrate the various properties of categories, at some point in the class—preferably at the start of the term—provide people with labels of well- (e.g., even numbers) and not-so-well-defined categories (e.g., tool or chair). This works better if some of the categories can be tied into some aspect of the local school environment. Have people rate how good examples of various items are, how large the categories are, and so forth. From this information, use their responses to show how their own reported knowledge shows some of the effects that are reported in the chapter. Have the class discuss how they see how their own reports fit in with the cognitive theories and whether they are surprised by what they have written.

Chapter 10: Formal Models of Memory

Instruction Tip: An important part of delving deeper into a subject matter in psychology is writing papers. However, students may not completely understand how to use the services available in the campus library. It would be helpful to show students how to access these resources to find appropriate books and journal articles. The temptation for many students will be to use sources from Web pages; show the limits of information obtained from the Internet relative to the materials available through the library.

Discussion Topics:

How much do formal models advance our understanding of memory? How accurate is the quote by Hintzman at the beginning of the chapter?

How do the threshold and generate-recognize models compare with theories of memory that have already been discussed in class? How do they compare with the students' intuitions about how their own memories work?

What other areas of psychology might benefit from the insights provided by network models of memory?

What are the advantages/disadvantages of global matching models, in which there is very little structure in long-term memory, as opposed to network models, where there is a great deal of structure?

How eager should psychologists be to adopt dual-processing models, given that they make theories more complicated? What is the value of Occam's Razor in general?

Demonstrations

The topic of formal models of memory can be daunting to some students. If you have some programming skill, or have ready access to people with some programming skill, it would be beneficial to provide graphic demonstrations of these sorts of formal models at work. Students can watch things such as activation levels change over time, and perhaps see how people may be led astray in their attempts to remember.

Chapter 11: Autobiographical Memory

Instruction Tip: As the semester wears on, students can, at times, become apathetic to the classroom environment and may seek ways of avoiding it. To keep attendance high during these lapses in interest, pepper the class with surprise quizzes that cover the issues presented in lecture that day.

Discussion Topics:

What are autobiographical memories if they are neither completely episodic or completely semantic? What does this mean for the ways in which we have been dividing memory up until this point?

Why do autobiographical memories seem to be organized at roughly three levels? What is different about the nature of the information at each of these levels?

If autobiographical memory is like a narrative or story, what does this mean for the type of stories that we like to hear? What does this tell us about the genres of novels that are most popular?

We often take alternative perspectives when we think back on our lives. Often these memories are not from the same perspective that we had when the event occurred. However, we don't seem to be disturbed by these inconsistencies—in fact, we may have great confidence in memories that have an observer, rather than a field, perspective—a glaring error. Why might this be so?

We remember very little from when we were infants. How big of a problem is this? How different would our lives be if we could remember this information? What would life be like for a person who never emerged from infantile amnesia?

Older adults are often viewed as repositories of knowledge and experience. Given that they are likely to show a reminiscence bump for when they were around twenty years of age, what does this tell us about the experience of getting older?

Are flashbulb memories real? If they are real, what are they like?

Demonstrations

As a way of showing how autobiographical memories are represented at different levels, have a volunteer from the class describe different events in his/her life. Map out how these different events fit into the various levels of representation and the ways in which they interrelate with one another.

Chapter 12: Memory and Reality

Instruction Tip: Many of the topics in this section of the book have a bit of an air of controversy about them. To help the students engage more deeply with the material, it might be useful to stage a debate in class in which different sets of students take different sides on issues of the operation of memory and its relation to reality.

Discussion Topics:

How much can we trust our memories, given what was read in the chapter?

What are the ethics of using the knowledge in the chapter to deliberately alter people's memories? Are there any examples from history of this having been done? Are there any circumstances where it might be appropriate?

What are the implications based on source monitoring for things learned through entertainment (e.g., historical fictions)?

What implications does the existence of cryptomnesia have for the legal profession?

If you were responsible for determining whether students had cheated on a term paper or were merely experiencing cryptomnesia, how would you determine this?

How does the false fame effect relate to the maxim “there’s no such thing as bad publicity”?

Demonstrations

A great class demonstration for this topic is to read people lists of words from the Roediger & McDermott set of materials. This set is provided as an appendix to their article and can be easily obtained. Read one or two lists to the class and have students recall as many words as they can. After they have recalled the words, first point out any serial position curve that can be observed. Then point out the large number of students who have recalled the target word, which was never said—these are false memories. Then, if possible, look at how the rate of recalling the target word compares to the rate of remembering words that were actually heard.

Chapter 13: Memory and the Law

Instruction Tip: The students are aware of a large number of occupations, including “student,” that require memory in many ways. Try to encourage them to relate the findings and principles revealed in the chapters to the ways they tie into the use of memory in those more everyday settings.

Discussion Topics:

To what practical domains, other than the law, might the principles of memory be effectively applied?

How would you change the way the legal system operates to take into account what we know about how memory operates?

Given that problems in eyewitness memory can occur, how much emphasis should these reports be given in legal investigations? What does this knowledge do for the relative importance of independent evidence?

How can what has been learned about memory and emotion in the context of eyewitness memory be applied to memory and emotion in other contexts?

How can what has been learned about memory and confidence in the context of eyewitness memory be applied to memory and confidence in other contexts?

How does the research on eyewitness identification reported in the chapter mesh with recent reports in the news about people who have been convicted of crimes and jailed being released based on DNA evidence?

Demonstrations

A good way to illustrate the problems of eyewitness memory is to have the class witness some event and then test their memory of it. This can be done by either staging an event in class or having people witness a film. Either will work, but film may be better because it can be shown

again to students, and the event itself can be more controlled. Assess memory for the witnessed event by including such things as misleading information, interviewer feedback, and other manipulations that can alter memory or memory confidence to show how fragile eyewitness memory can be.

Chapter 14: Metamemory

Instruction Tip: Some topics can seem abstract to students when presented outside of any context. To help students understand how they can apply these ideas, have them watch segments of narrative films in class and then discuss how the concepts that are being studied can be applied to the situations that are depicted in the films.

Discussion Topics:

How difficult do you think it is for consciousness to reflect back on itself, as in metamemory?

How sensible is it that people make memory judgments based on information from a question?
How much awareness do people seem to have of their own memory processes?

Why are people so poor at judging whether they have learned something? How involved should our educational system be in training people to evaluate their own learning and to more effectively focus their learning and studying?

What do feeling of knowing judgments tell us about our intuitive feelings about our own memories? How much can we trust our own subjective opinions about how our memories work?

Given that remember and know responses seem to be driven by different types of memory processes, what does this say about the unity/division of memory? How coherent are our memory processes? To what degree do they work in competition with one another? To what degree do they cooperate?

How much does the hindsight bias pervade our lives? What can be done to reduce its effects?

What are things you can do to improve your prospective memory?

What are students' reactions to the directed forgetting phenomenon? Why does the instruction to forget not work for all kinds of information (such as memory for trauma, embarrassing events, or potentially relevant information)?

How effective are mnemonics in most everyday situations?

If there is no reliable eidetic imagery, why is the concept of a photographic memory so popular in our culture?

Demonstrations

Two metamemory principles that can be easily illustrated during the course of a class lecture are judgments of learning and the hindsight bias. For judgments of learning, at the beginning of the class period, read a portion of an encyclopedia article on some relatively obscure topic to the class. Then have students rate how well they think they have learned various ideas from the article. At the end of the class period, administer a test on those concepts. In the next class period, the relationship between predicted and actual performance can be shown. For the hindsight bias, ask the class to rate how well they know information for a range of moderately obscure pieces of information. Then, after these ratings are collected, read the accurate information to the class. Later, have people rate how well they knew this information prior to it being read to them. The ratings before and after hearing the accurate information can then be compared.

Chapter 15: Development

Instruction Tip: Often the material presented in lecture and a textbook can seem as though it comes from a different time, from people who aren't quite real. To make the work and results that you are discussing seem more real to the class, present pictures of the people whose research you may be citing. Much of the research comes from either well-known individuals from the past, many of whose pictures are readily available, or from people who are currently active, and who have their pictures posted to the Web.

Discussion Topics:

What does the fact that different types of memory develop at different times tell us about memory and memory processing in general?

How does the fact that such sophisticated methods must be used to test infants limit what can be known about infant memory?

, What does the high performance of children on topics for which they have a great deal of knowledge say about the development of memory overall? How much is really memory development and how much is just acquiring knowledge?

Given the limitations on children's memories, how reliable would they be in critical situations, such as if they were witnesses?

What do changes in older adults' memory processes imply as our society ages?

How aware are people of how certain types of memory are preserved with old age, and how does this cause them to treat the elderly inappropriately? How can society better take advantage of the memories carried by older adults?

What can be done to compensate for problems older adults may have with their memories?

Demonstrations

Although college students are often not that far removed from childhood, they may have difficulty remembering what it was like. If you have a colleague with young children or children of your own, consider having a child come in to illustrate differences in things such as working memory capacity. Also, try to find out what cartoons the child may be watching, and familiar with, that the college students are unlikely to know. Then give the child and the college students a memory span test using names and terms from that cartoon. Hopefully, under those circumstances, the child will do as well as—if not better than—the students.

Chapter 16: Amnesia

Instruction Tip: At the end of the term, it would be helpful to have students take an in-depth look into some topic covered in the course. This could be done by having students write a term paper or—better yet—propose a series of experiments that would follow up on some of what that they have been learning.

Discussion Topics:

How many people have had the experience of retrograde amnesia? What was this experience like?

What are some of the likely causes of transient global amnesia? Why is it less likely to be observed outside of a particular age group?

What would life be like to have anterograde amnesia? What methods could be developed to help these people live more productive lives?

What does the existence of amnesia say about the qualities of human memory?

In amnesia, some memories are preserved while others are lost. What does this differential preservation-loss reveal about memory and the human condition? How unitary/fragmented are our minds?

What are student opinions about the various types of psychogenic amnesia? What steps could be taken to assess whether a person is actually suffering from such a condition or malingering?

Demonstrations

The best way to show what it is like to be an amnesic, especially someone with anterograde amnesia, is to show a film of such a person. One person who could be used as a focus for such material is Clive Wearing, a British musician who became an anterograde amnesic. There is a video called *Life Without Memory: The Case of Clive Wearing* that does a nice job of illustrating this condition.

Chapter 17: Other Memory Disorders

Instruction Tip: At the end of the term, set up some opportunity to have students express which topics they found most useful or most interesting, which provided the most insight into themselves, and which gave them information they could use in other classes or in other aspects of their lives. Also ask them about which topics they found the least interesting, most useless, etc. This will do two things. First, it will provide an opportunity for students to synthesize all of the information that they have been exposed to throughout the course of the term. Second, it will provide you with valuable insight as to what can be done to improve the course for the next time around.

Discussion Topics:

How does the acquisition of dementia relate to the process of getting old? Does one necessarily depend on the other?

Given that so many different psychological conditions have some memory component to them, what does this suggest about the role of memory in our psychological experience more generally?

How do the effects observed in these various memory disorders relate to the different types of memories laid out in the earlier chapters? Do these findings support or refute what has been described about normal human memory?

What is the value in studying people who have damaged memories? How should these people be treated?

What are the implications of drug and alcohol use for the ability of students to learn effectively?

What does the experience of people with synesthesia mean for human experience of the world in general? Are there any students in the class who have this condition, and do they use it to help improve their memories?

Demonstration

This topic would provide an excellent opportunity to bring in a guest speaker who has some expertise as a clinician and has worked with people who have some of these conditions. Such a resource would provide the students with a rich set of insights into these conditions and make the material come alive.

TEST BANK

Chapter 1: Overview and History

1. A relatively permanent record of an experience is the essence of _____.
 - a) behavioral potential
 - b) learning
 - c) memory *
 - d) performance
2. Which is not a way that the term “memory” is used by psychologists?
 - a) as a unit of analysis *
 - b) as a storage mechanism
 - c) as a process
 - d) as a record
3. Memory is _____.
 - a) a storage facility
 - b) the result of experience
 - c) a process
 - d) all of the above *
4. Which is NOT a way that the term memory is used?
 - a) an item that holds the contents of previous experiences
 - b) a location where information is kept
 - c) mental processes involved in acquiring, storing, or retrieving information
 - d) a perfect replication of events *
5. Which of the following is NOT an aspect of learning?
 - a) behavior potential
 - b) maturation *
 - c) relative permanence
 - d) experience
6. Learning is _____.
 - a) a relatively permanent change in behavior potential
 - b) a process
 - c) the result of experience
 - d) all of the above *
7. What is a good definition of learning?
 - a) a change in the potential to alter behavior as a consequence of experience *
 - b) putting information in the memory store
 - c) retaining contents of experience
 - d) the mental process used to acquire, store, or retrieve information

8. An engram is to memory as _____.
a) a keyboard is to a computer
b) a mouse is to a computer
c) a file is to a computer *
d) a central processing unit is to a computer
9. Why are there so many metaphors for memory?
a) because memory cannot be studied objectively
b) to demonstrate that all of our memories are different
c) because we cannot observe memory directly *
d) because people's attitudes and opinions change so much over time
10. Metaphors for memory (like a recorder or organized storage) are used because _____.
a) the uncomplicated nature of memory makes metaphors easy to find
b) memory must be observed indirectly, so metaphors are useful tools for understanding its complexities *
c) you can exercise your memory like a muscle, so creating new metaphors makes your memory more efficient
d) using language as a mental representation prevents memory loss
11. Which metaphor captures the idea that there is an organization to memory?
a) cow's stomach
b) lock and key
c) video camera
d) network *
12. Which metaphor captures the idea that information in memory can be forgotten?
a) leaky bucket *
b) computer
c) junk drawer
d) library
13. Which metaphor of memory conveys the idea that memories are discrete collections of information?
a) hidden observer
b) computer
c) literacy *
d) aviary
14. One contribution of Plato's philosophy to work on memory was the idea that _____.
a) different impressions vary in quality *
b) memory is tied exclusively to experience
c) no man is an island
d) memories are stored in a collective subconscious

15. Aristotle's laws of association include all of the following EXCEPT _____.
a) similarity
b) contiguity
c) contrast
d) idealized abstractions *
16. Aristotle's laws of association include all of the following EXCEPT _____.
a) similarity
b) regularity *
c) contrast
d) contiguity
17. Who was the seventeenth-century scientist/philosopher who developed a sophisticated theory of memory but never followed up on it, leaving it to fall into obscurity, further delaying the onset of a scientific study of memory?
a) Isaac Newton
b) Robert Hooke *
c) Charles Darwin
d) Benjamin Franklin
18. What influence did Darwin have on theories of memory?
a) the idea that memory develops in a person through a selection process
b) the concept that memory is dependent on a complex brain
c) the idea that memory has developed over the generations to adapt to the demands of the environment *
d) none
19. Memory development in a person is guided by his or her DNA.
a) true
b) false
c) partially true*
d) true, except for cases of brain damage
20. An important concept that is heavily used in theories of memory that developed out of the empiricist tradition is _____.
a) the association *
b) adaptation to changes in the environment
c) the engram
d) separation of mind and body
21. Empiricists such as Aristotle believed that memory operates as _____.
a) associations between experiences or stimuli *
b) a bridge between perceptions and rational abstractions (since empirical observations are often distorted)
c) an abstract, perfect realm without need for additional inquiry
d) the rational link between the mind and the body

22. An important idea for memory research taken from the rationalist tradition in philosophy is that _____.
a) the mind is rational
b) everything is explainable with empirical testing
c) genetics is the guide to understanding memory at its basic level
d) the mind actively constructs our interpretation of reality *
23. Something discovered by Ebbinghaus that describes a process that can reduce the effects of forgetting is _____.
a) forgetting curve
b) overlearning *
c) learning curve
d) savings
24. Ebbinghaus used nonsense syllables to study memory because _____.
a) he wanted to study memory in its pure form *
b) he did not have other people to test
c) they are easy to create in German
d) he wanted an experimentally clean way to assess prior knowledge
25. Which of the following is NOT a principle of memory discovered by Ebbinghaus?
a) learning curve
b) schema *
c) savings
d) distribution of practice
26. Which of the following important figures in the history of memory research was interested in how prior knowledge influences memory?
a) Ebbinghaus
b) Bartlett *
c) Thorndike
d) Tolman
27. What is an important concept in memory developed by Bartlett?
a) learning curve
b) schema *
c) savings
d) distribution of practice
28. What is an important distinction in types of memory made by William James?
a) memory store hegemony
b) hierarchical rotations
c) the difference between primary and secondary memory *
d) the difference between procedural and declarative memory

Comment [W3]: Au: Okay?

29. An important contribution of the gestalt movement to modern memory psychology is _____.
- a) isomorphism of representation and process *
 - b) reductionistic methods
 - c) the emphasis on observable behaviors
 - d) segregation of different memory stores
30. According to the gestalt psychologists, _____.
- a) the whole is more than a sum of its parts
 - b) the whole is different than the sum of its parts *
 - c) latent learning is the most dominant form of memory
 - d) memory is best understood using a reductionistic approach
31. Historically, most of the research by behaviorists involved nonhuman animals because _____.
- a) compared with humans, there were more ethical concerns
 - b) of concerns about the lack of interrelations among various species
 - c) animals might permit the study of learning in a purer form *
 - d) of all of the above
32. The behaviorists did not study memory because _____.
- a) it was too hard
 - b) it could not be directly observed *
 - c) they were concerned with developing therapies
 - d) they were focusing on the Law of Effect
33. What is one of the most important contributions of research in the behaviorist tradition to modern research on memory?
- a) methodological rigor *
 - b) a disdain for physical sciences
 - c) a lack of neurologically based theories
 - d) advanced statistical methods
34. A line of memory research that followed from Ebbinghaus's work with nonsense syllables is _____.
- a) verbal learning *
 - b) rationalism
 - c) empiricism
 - d) behaviorism
35. What was a primary stimulus used in the verbal learning tradition of studying memory?
- a) nonsense syllable
 - b) educational texts
 - c) spoken words
 - d) paired associates *

36. Which verbal learning method involved recombinations of A and B items on a second list of paired associates?

- a) A-B C-D
- b) A-B A-D
- c) A-B A-B *
- d) A-B A-Br *

Comment [W4]: Au: Okay?

37. Lashley's search for the engram resulted in _____.

- a) the discovery that there is no such thing as photographic memory
- b) the discovery that rats have very deficient memory systems
- c) the discovery that memory resides in the hippocampus
- d) the discovery that memory is not localized *

38. Which of the following describes what Lashley found about how removing portions of the cortex of rats affected later memory for a maze that had been learned?

- a) Performance was based on what parts were removed.
- b) The amount of cortex removed was critical, not the location from which it was removed. *
- c) There was great inter-individual variation.
- d) The brain did not regenerate neurons that had died.

39. Which researcher or group of researchers is matched with the correct concept below?

- a) Lashley: paired associative learning
- b) Bartlett: rationalism
- c) behaviorism: the whole is different than the sum of its parts
- d) Ebbinghaus: learning curve *

40. Which of the following important figures in the history of memory research is known for his research on the search for the engram?

- a) Ebbinghaus
- b) Bartlett
- c) Lashley *
- d) Tolman

41. Which approach to human learning and memory made an analogy between the human mind and a computer?

- a) cognitive *
- b) behaviorist
- c) neurological
- d) Ebbinghaus tradition

42. What is an important influence of the cognitive revolution on the study of memory?

- a) the computer metaphor *
- b) an appreciation of holistic processing
- c) rejection of subjective introspection
- d) an application of associative structure

43. The cognitive revolution _____.
a) ignored the methodological rigor put in place by behaviorists
b) asserted that memory was like a computer *
c) considered thought an invalid topic of study
d) felt memory was unimportant because it was not observable
44. Which of the following is NOT a component of the modal model of memory?
a) sensory registers
b) control processes
c) levels of processing *
d) long-term memory
45. The components of the modal model of memory are _____.
a) short-term memory, long-term memory, episodic memory, and semantic memory
b) episodic memory, semantic memory, and procedural memory
c) declarative and nondeclarative memory
d) short-term memory, long-term memory, sensory register, and control processes *
46. Which if the following is NOT a part of the standard (modal) model of memory?
a) control processes
b) sensory registers
c) procedural memory *
d) long-term memory
47. The modal model of memory contains _____.
a) implicit memory and explicit memory
b) deep and shallow levels of processing
c) learning and forgetting curves
d) sensory registers and control processes *
48. According to the modal model, what is needed to transfer information from iconic memory to short-term memory?
a) attention *
b) conscious strategies
c) semantic encoding
d) It cannot be done.
49. Who is credited with the creation of the modal model of memory?
a) Atkinson & Shiffrin *
b) Tulving & Ebbinghaus
c) Skinner & Tolman
d) Miller & Smith
50. Which portion of long-term memory can best be described as noetic?
a) episodic
b) priming