

Study Guide #1: Chapter 1 (pp. 1-12)

1. On page 2, the term reinforcer is defined. Be able to state this definition without peeking. (You and your partner should test each other).
2. Explain how Eric's situation probably illustrates the fact that reinforcement is effective whether or not it is explicitly arranged. (Why is the qualifier "probably" needed in this statement?)
3. Would Malott et al. consider imagining something to be behavior? Why or why not? (Explain how the dead-man test applies to the definition of behavior.)
4. What is a repertoire (p. 7)? What is the difference between a repertoire and a response? (Some people say, "You are what you do; you are your repertoire." How might this statement apply to Bobbie's "identity?")

5. What is the point of the comment on p. 8, "To be sure we're interpreting correctly, we would have to show that our assumed reinforcers really are reinforcers. And assuming they're reinforcers without checking them out can lead to failure when trying to modify behavior." Explain how do you would "check out" a reinforcer. What would you do? And what effect on behavior would you look for to conclude that you do or that you do not have a reinforcer? Provide an illustrative example.

6. What predicament is Malott et al referring to when they write "If it feels good, be careful...?"

Study Guide #2: Chapter 2 (pp. 13-31)

1. Without peeking, be able to state the definition of the reinforcement contingency as given on pps. 14-15. Have your interteach partner check to be sure you can state the definition exactly and that you can describe why each of the terms in the definition is important to include. Then do the same for your partner.

2. What does the frequency of behavior mean? How could you calculate the frequency (or the rate) of some response? Provide an illustrative example.

3. What is a reinforcement contingency? (We say that _____ is contingent on _____.)

4. For the following examples:
 - (a) Describe the contingency in English. That is, say what is contingent on what. Then diagram the contingency using the contingency diagram shown on page 14. This is the procedure.
 - (b) What effect did the contingency have on behavior (i.e., what happened to the likelihood of behavior when the contingency was introduced)?
 - (c) What is the name of this kind of contingency? Indicate point by point how the example fits the definition of the contingency.

Examples (from the book):

- The improvement in Juke's grandfather's meaningful talk. (p. 13-14)

- The professor's telling jokes more frequently. (p. 15)

- The high frequency of Rod's crying. (pps. 15-16)

- Your own examples (at least 2) that illustrate the kinds of contingencies discussed in this chapter.

5. Explain why each of the following is not an example of positive reinforcement. And explain also why someone might mistake it as an example of positive reinforcement.

- Mrs. Jones pays Tom today to cut the grass next Saturday, and Tom indeed does cut the grass on Saturday.
- The manager of a company decided to try using reinforcement to improve productivity. So she started giving free snack breaks from 10:30-10:45 and from 3:00-3:15 each day.
- A teacher decided to use reinforcement to improve on-task behavior of the third-graders. When a child completed an assignment, the teacher gave the child a little smiley face card. Yet the likelihood of completing assignments did not change.

6. Here are some correct and incorrect definitions of the reinforcement contingency. Which two of these definitions are correct? Indicate what is wrong(or incomplete) with each of the incorrect ones.

- Presentation of a reinforcer which decreases the frequency of that response.
- A response is contingent upon the presentation of a reinforcer and that response increases in frequency.
- The response-contingent immediate presentation of a reinforcer resulting in an increased frequency of that response.
- The response is contingent on the presentation of a reinforcer resulting in an increase of the response.
- Presentation of a reinforcer contingent on a response.
- A response contingency where one presents a reinforcer immediately following a response, producing an increase in the rate of the response.

7. Give an example of an everyday "explanation" of some behavior that illustrates the problem of circular reasoning. Why is circular reasoning a problem? (pp. 23-24)

8. Give an example of an everyday "explanation" of some behavior that illustrates the problem of reification (p. 24). Why is reification a problem?

9. Malott et al. note that some approaches to psychology (e.g., approaches that favor the medical model) treat behavior mainly as a symptom. In those approaches what is behavior a symptom of? Can you supply examples in addition to those in the book?

Study Guide #3: Chapter 3 (pp. 32-56)

1. Explain how Ed's recovery might be interpreted as an instance of reinforcement by the removal of an aversive condition.

- What is the aversive condition?
- What is the response that is reinforced?
- Describe the contingency in words and using the diagram.
- Describe the effect on behavior that results from the contingency.
- What is the name of this kind of contingency? Explain, point by point, how the example fits the definition of this kind of contingency.

2. On page 35, the authors define the escape contingency (also known as the negative reinforcement contingency). You should be able to state, without peeking, the definition of the escape contingency. Have your interteach partner check to be sure you can state these exactly. Then do the same thing for your partner.

3. Define (without peeking) aversive condition. Have your interteach partner check to be sure you can state the definition exactly. Then do the same thing for your partner. What is the relation between *aversive condition* and *negative reinforcer* (pp. 36). (What does the negative refer to?)

4. Describe how you could find out if the tape-recorded sound of a baby crying is an aversive condition for your partner. The critical point here is to use the precise, technical definition of aversive condition as a guide for how you could find out if the sound is, indeed, an aversive condition. (Hint: you will need to arrange a contingency and then demonstrate a particular kind of effect on the likelihood of a response.)

- Do the same for the following stimuli:
 - The odor of rotting meat in your kitchen's garbage can.
 - The sound of nagging from a parent or significant other.
 - The sound of your friend's little brother's drum beating while your friend is trying to study.
- For each of the examples immediately above, draw the relevant contingency diagram, describe the effect on the likelihood of a response, and indicate how your example illustrates reinforcement by the removal of an aversive condition.

5. What is the problem with defining aversive condition as a condition that a person doesn't like?

6. What is similar and what is different between reinforcement by the presentation of a reinforcer (positive reinforcement) and reinforcement by the removal of an aversive condition (negative reinforcement)? Provide an example of each, and use those examples to illustrate the similarities and differences.

7. Describe Grace's problem (pp. 37-38) as an example of reinforcement by the removal of an aversive condition. (Be sure to identify the response, the aversive condition, and the contingency; and diagram the contingency.)

- What is the problem with saying that "Grace is having her attacks so she can escape from aversive situations"?
- What is the problem with saying that the aversive situation is causing Grace's cursing? (Hint: Something important is left out in that statement.)

8. Describe how the high likelihood of Jimmy's disruptive behavior (pp. 39-44) might be the result of a negative reinforcement contingency. (Draw the contingency diagram and describe the effect on behavior).

9. Describe how you might use differential reinforcement of other behavior to reduce the distressingly high frequency of tantrum behavior of 4-year-old Tommy in grocery stores. (Might there be any advantages of using this procedure over, say, punishment to reduce the frequency of tantrums?)

10. Describe the concept of functional assessment and three functional assessment strategies that a behavior analyst might use.

11. Diagram the contingencies that produce what is sometimes called a sick social cycle. Use the example given in the book (p. 48-49). Describe the effects of those contingencies on the behavior of each of the individuals. Explain what about the example makes it (a) sick, (b) social, and (c) a cycle.

- Do the same using a different example.

12. What procedure did Hefferline, Keenan, and Harford (1958) use to study learning without awareness in humans? What was the result of their study that convinced Malott that "contingencies can control behavior, even when we are unaware of those contingencies, the behavior, or that any controlling is going on." (pp. 51-52)

Study Guide #4: Chapter 4 (pp. 57-81)

1. Without peeking, give the definition of the punishment contingency (punishment by the presentation of an aversive condition) (from page 58). Have your interteach partner check to be sure you have it exactly right.
2. The authors describe a method for treating self-injurious behavior (p. 59-60). For this treatment example, (a) diagram the contingency and state the contingency in words, (b) describe the effect of the contingency on Jack's behavior, and (c) identify the process and indicate how the example fits the definition of the process. (Note: You will probably want to study the other examples in the chapter to see how to diagram the contingency.)
3. Do the same for the treatment of sneezing (p. 60-61).
4. Explain what is similar and what is different between escape (or negative reinforcement) and punishment. Illustrate your answer with examples.
5. When people hear that some treatment involves punishment, they automatically assume that the treatment involves painful conditions like slapping, spanking, or shock. Is that assumption correct? (Obviously, the answer is, "No." Your job is to explain why the assumption is wrong.)

6. Treatment using punishment often seems mean. Based on your reading, what are some arguments in favor of the selective use of punishment (look closely at the example on pages 62 - 63 comparing gentle teaching & visual screening)?

7. What is overcorrection? Explain how it can be viewed as a punishment procedure. (Use the contingency diagram to show how overcorrection is like punishment.)

8. Explain what this statement means: "Whenever you use a punishment contingency, you should keep your eye on the reinforcement contingency as well" (p. 71). Illustrate your answer with an example; and diagram the relevant contingencies.

9. On pages 74- 75 the authors summarize their discussion of some of the ethical issues associated with using punishment. What is their point in saying, "Don't use punishment in wrath"? In their view, is punishment the same thing as retribution? Why or why not?

Study Guide #5: Chapter 5 (pps. 82-101)

1. Without peeking, state the definition of a penalty contingency. Have your interteach partner check to be sure you have it exactly right. Then you do the same for your partner.

2. What is similar between the penalty contingency and punishment by the presentation of an aversive condition? What is different? Provide an example of each to illustrate the similarities and differences. (In doing this, you should use the contingency diagrams.)

3. On pp. 82-83 the authors describe a procedure for reducing the frequency of aggressive talk. For this example, (a) diagram the contingency and state in words what is contingent on what, (b) describe the effect of the contingency on the boys' behavior, and (c) identify the type of contingency, making clear how the definition fits. (Note: You will probably want to study the other examples in the chapter to see how to diagram the contingency.)

4. Many people think punishment (including penalty) is a bad procedure. Why, then, do Malott & co. say, "Thank you, Mr. Punishment?"

5. What is similar and what is different between response cost and time-out (p. 86-88)? Provide an example of each. Show the contingency diagrams and describe the effect on the future likelihood of a response. Are the differences very important? (Would it be correct to say that penalty, response cost, and time-out are three different procedures? Why or why not?)

6. Without peeking, reproduce and describe the contingency tables on p. 93.

7. What is the Law of Effect?

8. For the story below, interpret the change in Sally's behavior as possibly the result of a penalty contingency. Diagram the contingency, describe the effect on Sally's behavior, and show how the example fits the definition of penalty. Which subtype of penalty best fits this example?

Sam and Sally were having a very enjoyable conversation after dinner until Sally began to talk about how little Sam did around the house. At that point Sam became very quiet for several minutes. Later they resumed their enjoyable conversation until Sally again began to talk about Sam's lack of helping with housework, at which point Sam again became quiet. We observe this pattern a few more times over the next few evenings. We also see that Sally brings up the topic of Sam's housework less and less often. (Interpret Sally's behavior.)

9. What is Malott's point in saying, "Whenever you have a penalty contingency, you must also have a reinforcement contingency"? (p. 96) How is this point similar to one that was made in Chapter 4, page 71?

Study Guide #6: Chapter 6 (pp. 102-123)

4. Extinction and penalty are sometimes confused. What is similar and what is different between them? (hint: contingency) Provide an example of each.

5. Does extinction after reinforcement and after punishment have the same or different effects on the likelihood of a response? Why is the effect of extinction after punishment called recovery? (If you can, explain how recovery might be due to the "background" reinforcement (or escape) contingency for the response.)

6. What is similar between extinction after punishment and extinction after penalty? Provide an illustrative example.

7. Describe how extinction was used to decrease the frequency of Jimmy's self-stimulatory behavior (pp. 109-110). What was the reinforcer for Jimmy's hand flapping? (Note: the extinction procedure was indirect. Why was an indirect procedure necessary?)

8. Explain how to use extinction to find out if a particular contingency is responsible for the frequency of a particular response. Provide an illustrative example.

9. Diagram the example of extinction after escape training given on pp. 116-117. That is, diagram the escape contingency and also diagram the extinction procedure. Does the extinction procedure consist of simply not presenting the aversive stimulus? Why or why not?

10. If your goal is to reduce the frequency of some response, what are the pros and cons of using punishment versus extinction? Try to come up with an example that you could use to illustrate the use of these two procedures.

Study Guide #6 supplement

1. What is the primary purpose that is common to a reversal design? (hint: reliability; replication).

2. Describe how you might use (a) a reversal design and (b) a multiple-baseline design to find out if a reinforcement procedure was effective in increasing the likelihood of

appropriate social behavior in a child. Sketch a graph for each design showing hypothetical results that would demonstrate that the procedure is effective. What results would show that the procedure is not effective?

3. Describe the forgetting procedure (p. 119) and explain how it differs from extinction.

Study Guide #7: Chapter 7 (pp. 124-143)

1. What is a task analysis? Why is it important to do a task analysis if you are planning to use reinforcement to develop or refine a skill? Provide an example different from the ones in the book if you can (use one from the book if you get stumped).

2. So far we have focused on some ways to change the likelihood (or frequency) of responding. That is, we've focused on the four basic contingencies. In this chapter the focus is on the features of the response. That is, we may be interested not only in how to get a response to occur more or less frequently, but in how to get the response to occur, say, forcefully or weakly, quickly or slowly, etc. These are dimensions of a response. One of the following examples illustrates our old familiar concept of response frequency; the others illustrate dimensions of the response. Indicate which is which.

- Tim engaged in 10 temper tantrums per hour.
- Tim's tantrums lasted an average of 3.5 minutes each.
- Yesterday, Tim began a temper tantrum 6.3 minutes after the lesson began.
- John always turned off the faucet very forcefully.

3. For the examples above, indicate which illustrates latency and which illustrates response duration?

4. What is a response class? Give an example of a response class where the responses are similar on at least one dimension. Give an example of a response class where the responses share the effects of reinforcement. Be clear how your example shows that the responses in a class differ from each in other respects. (With respect to classes generally, the members are different in some respects but the same in some critical respect. That's true for classes generally. For example, the class of "dogs" includes members that look very different in many respects but share certain defining characteristics. The same point holds for response classes.)

5. Provide an example illustrating the differential reinforcement procedure and response differentiation. Be precise in showing how your example fits the definition. Use the contingency diagrams (fully labeled) to identify the differential reinforcement procedure? Why do you need at least two "response boxes?"

6. Describe the differential reinforcement procedure (with contingency diagrams) that has been used to generate creative (or novel) responses in porpoises. (What is Malott et al.'s general point in saying that "there is nothing mysterious about creative behavior.")

7. Provide an example of response differentiation based on negative reinforcement. Show the contingency diagrams.

8. Provide an example of response differentiation based on punishment. Show the contingency diagrams. What is similar and what is different between differential reinforcement and differential punishment? Describe how you might use a differential reinforcement procedure to get a child who often talks too quietly to be heard properly to speak at a normal loudness. Then describe how you might use differential punishment to achieve the same result.

Study Guide #8: Chapter 8 (pp. 144-158)

1. The chapter begins with an example of shaping the response of speaking using the method of reinforcing successive approximations to a terminal response. For this example indicate what is

- a) the initial behavior
- b) the intermediate behaviors, and
- c) the terminal behavior.

2. What is the point of shaping? That is, why don't you just start with the terminal response and reinforce that response?

3. On page 146, the authors say, "Reinforce the initial behavior until it occurs often. Then abandon that response." What do they mean by "abandon that response?" Did Dawn "abandon responses" as she was shaping the speaking response?

4. Why is shaping called the method of successive approximations?

5. Describe how you might use the method of shaping (or the method of successive approximations) to get an 8-month-old child to roll a ball to you (while you are both sitting on the floor, about 5 feet apart). Be sure to describe the effects on behavior.

- a) Indicate what might be the child's initial response, some intermediate responses, and the terminal response. Also, indicate what potential reinforcer might be used.
- b) Diagram the contingencies, making clear how the contingency changes during the course of shaping (i.e., the point about "abandoning the response").

6. Does shaping with reinforcement involve differential reinforcement? The answer is, "Yes." So the question, really, is to describe what is similar and what is different between shaping and differential reinforcement. Provide an illustrative example.

7. On p. 150, Sid compares shaping with reinforcement versus shaping with punishment to two kinds of sculpting. Use the example of the ball-rolling (or a different example) to illustrate how you might shape a terminal response using (a) shaping with positive reinforcement and (b) shaping with punishment. Be sure to indicate in each case what the effects on behavior are. (Try to use contingency diagrams.)

8. Explain what the difference is between fixed-outcome shaping and variable-outcome shaping. (Hint: for fixed-outcome shaping, the reinforcer (i.e., the after) remains the same throughout shaping, but the response required to obtain that reinforcer changes.) Provide an illustrative example.

9. Try to shape some response, such as raising the right arm all the way up, using your partner as subject.

Study Guide #9: Chapter 9 (pp. 159-168)

1. Define and give an example of an unlearned reinforcers and an unlearned aversive condition. (Try to guess what the definition is of a learned reinforcer and a learned aversive condition.) [Note: in some textbooks unlearned reinforcers are called primary reinforcers, and learned reinforcers are called secondary (or conditioned) reinforcers.]

2. Which of the following are likely to be unlearned reinforcers (or unlearned aversive conditions) and which are likely to be learned reinforcers (or learned aversive conditions)? Explain your selection. -----

--Water for a thirsty individual --A dollar bill for most of us

--The sensation from a blister on your foot --The sound of your boss's footsteps coming down the hall when you haven't gotten the report done that you had promised

3. Define the principles of deprivation and satiation and provide an example of each.

4. Explain what these phrases mean: "Increases relevant learning and performance" and "temporarily decreases learning and performance." Be sure to explain what the term relevant refers to. And explain the difference between learning and performance.

5. Describe how you could show that food deprivation (a) increases relevant learning and (b) increases relevant performance. Then describe how you could show that food

satiation decreases relevant learning and (b) decreases relevant performance. [Note that Malott says that this is "really hard stuff."

6. What is a motivating operation? Explain how deprivation and satiation are examples of motivating operations.

7. Provide an example showing how a motivating operation can be incorporated into the contingency diagrams. (You could use food deprivation as the motivating operation and reinforcement of lever-pressing by food as the contingency.)

8. Describe how the quantity or the quality of the reinforcer might be altered. What effect might a change in the quantity or quality of the reinforcer have on relevant learning and performance?

9. Do all unlearned reinforcers provide direct biological benefits? The answer is "no," so you should give an example of an unlearned reinforcer that does and an example of an unlearned reinforcer that does not provide a direct biological benefit (although it might provide an "indirect biological benefit.")

10. What is the Premack principle? Try to give an example that illustrates the use of this principle.

Study Guide #10: Chapter 10 (pp. 169-177)

1. Beginning on page 169 Malott & Co. discuss certain instances of aggression. Consider the example where the rat was given brief electric shock and immediately behaved aggressively. Interpret this kind of aggression as operant behavior. That is, identify the response, the reinforcer, and the motivating operation.

2. Describe an example of extinction-induced aggression. Interpret the kind of aggression as operant behavior. That is, identify the response, the reinforcer, and the motivating operation.

3. What is similar between pain-induced and extinction-induced aggression? What does Malott mean by saying that "aversive conditions are motivating operations." What is the relevant reinforcer for this kind of motivating operation?

4. How did the experiment that is described on page 171 demonstrate that the opportunity to attack (or aggression stimulation) was a reinforcer, given the relevant motivating operation?

5. For the example of Dawn's subtle aggression (p. 172-173) what is the relevant response, the reinforcer, and the motivating operation? Provide a sketch of the contingency and the influence of the motivating operation.

6. Describe how escape from pain and escape from withdrawal might reinforce drug-taking behavior. What are the relevant motivating operations?

7. What does Malott mean by "the pure pleasure of drugs?" Does Malott suggest that drug taking is always maintained by an escape contingency?

8. What is an addictive reinforcer? What is the relevant motivating operation? Provide at least two examples illustrating addictive reinforcers and the relevant motivating operations.

Study Guide #11: Chapter 11 (pp. 178-200)

1. What was Dawn's guess about why Helen displayed such a high frequency of bizarre talk? Draw a diagram that shows the contingency that Dawn thought was responsible for the high frequency of Helen's troublesome behavior. What kind of contingency is this?

2. What is the reinforcer that most likely was responsible for maintaining Helen's psychotic talk? Is this reinforcer likely to be an unlearned or a learned reinforcer? Explain your answer.

3. On pages 178 - 179, the psychiatrist expresses skepticism that reinforcement has much to do with the high frequency of Helen's psychotic talk. What is his argument? What mistake is the psychiatrist making about reinforcement?

4. Give the definition of a learned reinforcer (and an unlearned reinforcer).

5. According to Malott et al., when attention functions as a reinforcer, is it likely to be a learned or an unlearned reinforcer? Explain.

6. What is the value-altering principle? Explain how the value-altering principle is relevant to attention becoming a learned reinforcer.

7. What is a token economy? What is the relevance of token economy to the topic of learned reinforcers?

8. What is a generalized learned reinforcer? What is an advantage of a generalized learned reinforcer over a specific learned reinforcer?

9. Define learned aversive condition and provide an illustrative example.

a. Describe how you could convert a tone that was initially neutral into a potential learned aversive condition (note the relevance of the value-altering principle).

b. Explain how you could demonstrate that the tone has indeed become a learned aversive condition.

10. On p. 193 Malott et al. discuss tastes and values. Tastes and values are sometimes said to be outside the scope of a scientific analysis--or at least outside the scope of behavior analysis. What is Malott's view on this matter?

11. What might you do to convert a click into a potential learned reinforcer for a rat? What could you do to demonstrate that the click has indeed become a learned reinforcer for your rat's behavior?

Study Guide #12: Chapter 12 (pp. 201-220)

1. In the stimulus discrimination training procedure the occasion becomes important because the occasion signals whether or not a particular response will be reinforced (or punished.) As a result, the occasion (i.e., an antecedent stimulus) comes to influence the likelihood of the response. Two different antecedent stimuli are presented in alternation. One is called the _____; when this particular stimulus was present in the past, the response was reinforced. In the presence of a different antecedent stimulus, called the _____, that same response was not reinforced (extinction).

2. The discrimination training procedure is also called a three-term contingency because you need to identify three elements to specify the contingency: the response (1), the consequence (2), and the discriminative stimulus (3). Diagram the three-term contingency operating in the discrimination training procedure. Describe the procedure's effect on the likelihood of the response in the presence of the S^D (S-dee) and the S-delta.

3. Once the Discrimination training procedure has produced an increased likelihood of a response in the presence of the S^D (i.e., the "S-dee" or discriminative stimulus) and a decreased likelihood of the response in the presence of the S-delta, we say we have achieved _____. What can we say caused the operant discrimination (i.e. that caused operant stimulus control)? What is the objective evidence of discrimination? (Or, to say the same thing, what is the objective evidence of operant stimulus control?)

4. Stimulus discrimination due to learning is pervasive. Give an example of stimulus discrimination, and diagram the procedure that produced the discrimination. That is, diagram the three term contingency, including the S^D and the S-delta.

5. On pages 206 Malott gives an example of using the discrimination training procedure to teach Jose to read. Describe and diagram an example of a discrimination procedure that you might use to teach a child to read his name. Be sure to identify the three term contingency, including the S^D and the S-delta.

6. Why, according to Malott, is it important for us to know about stimulus discrimination procedures based on punishment? Give an example from your own experience of a punishment-based discrimination. Make clear how the discriminative stimuli affected your behavior. Diagram the relevant three-term contingency including the S^D and the S-delta for punishment. (Be sure to note which stimulus, the S-dee or the S-delta, is a signal for the punishment contingency.)

7. The discriminative stimulus affects the likelihood of a response differently depending on whether it is an S^D for a reinforcement contingency or for a punishment contingency. Explain what this difference is.

8. Compare the stimulus discrimination procedure to the procedure of differential reinforcement. How are they different? How are they similar?

9. Discrimination training can be given in distinct lessons or it can be given incidentally in the regular classroom/play environment. Show by the contingency diagrams that incidental teaching, as described on pages 209-211, is, first of all, discrimination training. Then indicate why it might be advantageous to give discrimination training incidentally.

10. What is a prompt, and how is it used? Is a prompt an S^D ?

Study Guide #13: Chapters 13 (pp. 221-240) &14 (part)

1. Objectively, what do generalization and discrimination mean?
2. How do behavior analysts define concept? Apply this definition to some everyday examples of concepts (e.g., dogs, triangles, furniture, justice). That is, what objective (i.e., behavioral) evidence would lead you to say that so-and-so has the concept of dog (etc).
3. A stimulus class consists of a set of stimuli that differ from each other but have some _____. Give some examples of a stimulus class and explain how they fit the definition. What is the difference between stimulus class and concept?
4. To establish conceptual stimulus control (i.e., to train a concept), you could use the _____ procedure. It is very important for you to see that this procedure parallels the stimulus discrimination training procedure. It involves reinforcing (or punishing) a response in the presence of particular instances of one stimulus class and extinguishing it (or allowing it to recover) in the presence of particular instances of another stimulus class. Diagram this training procedure (using a particular example of a concept) in a way that shows the similarity with the stimulus discrimination training procedure.
5. In this training procedure the set of stimuli included in the concept (stimulus class) is called the _____ and any stimuli that are not part of the concept (stimulus class) is called the _____.

6. As a result of the conceptual training procedure the likelihood of the response is _____ in the presence of the particular training instances of the S^D class and _____ in the presence of the particular training instances of the S-delta class. At this point, have you demonstrated conceptual stimulus control? In other words, at this point, can you say the subject has the concept of X? The answer is, "No. We need to conduct some additional tests, as covered in the next Study-Guide item."

7. To be sure that you have established conceptual stimulus control, you need to test for _____ within classes and _____ between classes. To do this, you would present novel (new) instances of stimuli from the S^D and S-delta classes. What evidence from this test would demonstrate conceptual stimulus control (i.e., that the subject has the concept)? What evidence from this test would demonstrate only particular, but not conceptual, stimulus control?

8. Work out an example of how you would teach a child a new concept such as "truck" or "dog," or make up your own example.

9. In a _____ we begin with an S^D and S-delta that differ on at least two stimulus dimensions. This difference between S^D and S-delta is gradually reduced along all but one dimension until the S^D and S-delta are different along only one dimension. Why was this type of discrimination procedure especially useful for testing the hearing of non-verbal people? Diagram and explain how you could use this procedure to teach a child the concept of triangles.

10. The use of a fading procedure to establish discrimination without incorrect responses by the subject during the training is called _____ . What is an advantage of such a training procedure? Provide an illustrative example.

11. What is generalized imitation? Describe how you would train to produce generalized imitation. Then describe how you would test to see if your training had produced generalized imitation. Explain how this training and testing is similar to the training and testing for concepts.

Study Guide: Chapter 15 (pp. 254-268)

This chapter describes avoidance. One problem with analyzing avoidance is that it is sometimes hard to figure out what the contingency is that results in the increased likelihood of a response. There doesn't seem to be a concrete reinforcer.

1. Describe the procedure that was used to correct Sid's posture. What was the effect of this procedure on the likelihood of the response?

2. What is an avoidance contingency? Explain how the example with Sid (#1) fits the definition of an avoidance contingency. Try to fill in the contingency boxes.

3. Make up your own every-day example of an avoidance contingency. Diagram it and indicate the effect on behavior.

4. Why is it appropriate to say that the avoidance contingency is a reinforcement contingency?

5. Describe the procedure that Eve and Joe used to increase the likelihood of Jimmy's making eye-contact. (a) Explain how the treatment fits the definition of avoidance. (b) Diagram the contingency, and indicate the effect on the likelihood of the response.

6. What is an avoidance-of-loss contingency? Give an example of your own and diagram it. What is the effect on the likelihood of the response? (What are the main differences between an avoidance-of-loss contingency and a penalty contingency?)

7. What are the main similarities and differences between avoidance and escape contingencies? (It is sometimes said that the response in an escape contingency removes a current aversive conditions whereas the response in an avoidance contingency prevents a future aversive event. Explain what this statement means in terms of the contingency diagrams.)

8. What is a warning stimulus (p. 260-261; 265-266)? The complicated diagram on p. 260 shows that there is both an avoidance contingency and an escape contingency for lever-pressing. What is the aversive stimulus for the escape contingency?

Study Guide: Chapter 16 (pp. 269-275)

This chapter describes a fairly complex type of contingency--one that, nevertheless, occurs often in daily life. For that reason it is important to be able to interpret this kind of contingency correctly and understand the behavioral effects. One source of confusion is that people sometimes think they can simplify the contingency. But in doing so, they are forced to treat non-behavior as behavior. You can avoid this confusion by remembering the "Dead man's test" as a way to decide what is and what isn't behavior. This use of the "Dead man's test" comes up frequently in this chapter.

1. Without peeking, diagram the contingency that resulted in a decrease in the frequency of Sid's eye-batting. What kind of contingency is this?

2. Why would it not be appropriate to describe the contingency that reduced the frequency of Sid's eye-batting as a simple escape contingency of the following form?
(Hint: Dead man's test)

3. Complete the two diagrams on pp. 269-270 that have empty boxes.

4. Without peeking, give the definition of the *punishment-by-prevention-of-removal contingency*.

5. Be able to reproduce the contingency diagram on page 270. Be able to explain why each of the following diagrams are unsatisfactory for representing the contingency that resulted in the decreased frequency of Bill's face slapping.

6. What kind of contingency was responsible for the decrease in Bill's face slapping?

7. Be able to give the definition of *punishment-by-prevention-of-a-reinforcer contingency*.

8. What is similar and what is different between a *penalty contingency* and a *punishment-by-prevention-of-a-reinforcer contingency*? Why can both be regarded as types of a punishment contingency?

9. Make up your own every-day example of *punishment-by-prevention-of a-reinforcer contingency*. Diagram it and indicate the effect on behavior.

10. On pages 272-274 the authors describe a procedure used to reduce the frequency of Todd's disruptive behavior at the dentist. What is unsatisfactory about viewing this procedure as an escape contingency (page 273)? What is unsatisfactory about viewing this procedure as a reinforcement contingency (page 273)? What does Malott regard as the appropriate interpretation of the contingencies?

11. What is a DRO contingency? Why does Malott recommend not describing contingencies in terms of DRO?

Study Guide: Chapters 17, 18, 19 (parts of each)

These chapters discuss schedules of reinforcement. The study questions address only a few points in each of the three chapters.

1. What does the term, intermittent reinforcement, mean?
2. What is a fixed-ratio (FR) schedule? Describe the pattern of responding produced by a fixed-ratio schedule. Provide an everyday example.
3. What is the postreinforcement pause? What are the conditions that produce the postreinforcement pause? Why might the postreinforcement pause seem maladaptive?
4. What is similar and what is different between a fixed-ratio schedule and a variable-ratio (VR) schedule of reinforcement? In what way are the response patterns different? Provide an everyday example of a variable-ratio schedule.
5. What is similar and what is different between a fixed-interval (FI) schedule and a variable-interval (VI) schedule? In what way are the response patterns different? Provide an everyday example of a variable-interval and a fixed-interval schedule.
6. Does Malott et al. think the deadline for a term paper is like a fixed-interval schedule? Why or why not?

7. What is the procedure that can produce superstition in the pigeon? What is the evidence that a superstition was developed? Is the procedure a fixed-interval schedule?

8. What are concurrent contingencies? What is the relevance of concurrent contingencies to our everyday concept of choice?

9. In class we will discuss a particular type of concurrent contingency that can result in "impulsive" rather than "optimal" choices. The contingencies involve different amounts and delays of reinforcers (or aversive conditions). You should be able to sketch these kinds of concurrent (or competing) contingencies and discuss their relevance to "impulsive versus optimal" behavior.

Study Guide: Chapter 20 (p. 321-340)

1. Malott suggests that stimulus-response chains are common in our everyday lives. Define stimulus-response chain (behavioral chain).

2. On page 323, Malott gives an example of the stimulus-response chain operating when you eat potatoes. Think of a different example of a sequence of responses that might be interpreted as a stimulus-response chain, and diagram at least three segments (links). Each stimulus in a chain is said to have dual (two) functions. What are the two functions of each stimulus?

3. The book emphasizes the use of forward chaining for establishing a stimulus-response chain. Why would backward chaining often be a better method of establishing a stimulus-response chain? (Hint: Think of nonverbal subjects.)

4. Describe a situation in which you would use backward chaining to establish a stimulus-response chain. Diagram the stimulus response-chain and describe the procedure you would use to establish your stimulus-response chain. Which link in the chain would you establish first? (What role does shaping play in backward chaining?)

5. What is a differential reinforcement of low rate contingency (DRL)? What effect does it have on responding?

6. In the section entitled "Ways to reduce undesirable behavior"(pp. 330-335) the authors summarize 8 different procedures that one could use to decrease the frequency of some response. These procedures are summarized in a table on page 335. Go over this table with your interteach group.

Imagine that you are on the staff of a school or other institution (say, one for the education of children with various kinds of developmental disabilities). One of the children (Tim) throws temper tantrums excessively. As a result, Tim is unable to benefit from the educational program in the school--at least not to the degree that he needs to. Your job is to consider each of the 8 procedures listed in the summary on p. 335, and indicate how each one might be used to correct the child's problem. Specifically, (a) define and diagram the procedure, and (b) indicate the pros and cons of using the procedure for reducing the excessive frequency of Tim's tantrums. It would be good to pretend with your interteach partner that you are both on the staff of the school, and you can then work together to develop the best possible treatment program for Tim.

Study Guide: Chapter 21 (p. 341-360)

This chapter is on the topic of what is called respondent, Pavlovian, or classical conditioning (these terms mean the same thing).

1. Pavlov demonstrated that a previously neutral stimulus could acquire the ability to substitute for an effective eliciting stimulus. Describe the kind of learning experience that caused the neutral stimulus to acquire this ability. That is, what were the essential conditions that the dog had to experience? (And what does elicit mean?)

2. Define and give an example of each of the following: neutral stimulus (NS); unconditioned stimulus (US); conditioned stimulus (CS); unconditioned response (UR); conditioned response (CR). What is the difference between the UR and the CR?

3. Interpret the following as an example of respondent conditioning. Identify the NS, US, CS, UR, and CR.

Until last Saturday, little Billy showed no signs of autonomic nervous system arousal to the sound of the buzzing bee. But then Saturday, Billy heard the sound of the buzz and was stung. Since then Billy has shown signs of autonomic nervous system arousal upon hearing the buzz.

4. Suppose we also notice that Billy also calls to mommy for her to hold him when he hears the buzz. Is the response of calling out likely to be the result of respondent conditioning? What kind of behavior is the calling-out? And what kind of contingency probably caused the likelihood of calling out under such circumstances to increase?

5. What is the extinction procedure for respondent conditioning? What is the result of the extinction procedure?

6. What is higher-order conditioning? Provide an illustrative example.

7. What is systematic desensitization? What is its relevance to respondent conditioning?

Study Guide, chapter 22 (p. 361-376)

1. In the first four pages of Chapter 22 Malott et al. describe some examples that appear on the surface to illustrate reinforcement by the response-contingent presentation of a reinforcer. They conclude, however, that the examples illustrate something different from simple reinforcement. Why do they think something other than reinforcement is involved? (Hint: how does the diagram in the right column of p. 363 differ from the reinforcement diagram?)

2. Explain what the following terms mean and provide illustrative examples: Rule; rule control; rule-governed behavior; contingency control. Why do you think the authors call "contingency control" "intuitive control?"
Intuitive control is in Ch. 23 pp. 389-390

3. Explain what the authors mean by the following statement: "Rather than the delayed reinforcers themselves, statements about the possibility of those delayed reinforcers are what more directly influence or control our actions."

4. Explain what the authors mean by the following statement: "These cases of delayed reinforcers and promises of delayed reinforcers involve more than the simple procedures of reinforcement. We're talking about rule control. The behavior occurs not just because of the contingency but because someone has stated the rule."

5. Make up your own example of an ineffective contingency. Be clear why it would be called a contingency and why it is called ineffective.

6. What is similar and what is different between direct-acting contingencies and indirect-acting contingencies? Are indirect-acting contingencies effective?

7. Be able to reproduce the contingency tree (p. 367). What important points does the contingency tree represent?

They have changed the contingency tree.

8. Describe what this concept means: “Rule-governed analog to reinforcement.” Provide some examples illustrating reinforcement by the presentation of a reinforcer and a rule-governed analog to reinforcement by the presentation of a reinforcer.

9. Explain the authors' analysis of the example illustrated in the diagram on p. 369.

Study Guide, Chapter 23 (p. 377-392)

1. Provide an example of *feedback* that is different from the one used in the text. Why might someone confuse feedback with reinforcement? That is, what is similar between *feedback* and *reinforcement*?
2. Why do the authors believe that feedback is not the same as a simple reinforcement procedure?
3. What is the authors' point in distinguishing between *process* and *product*?
4. What is a *task analysis*?
5. On pp. 382-383 the authors describe a procedure that was effective in getting people to carpool. Describe the procedure. Is it a reinforcement procedure? Why or why not?

6. Explain what the following statement (p. 385) means, providing illustrative examples.

People make two kinds of errors in dealing with indirect-acting rule-governed analogs:
Most often they act as if the indirect-acting contingency were a direct-acting contingency.
Less often they make the error of acting as if the direct-acting contingency would not work; they overlook rule-governed behavior .