

# **PTEC 155 – DEVELOPMENTAL DISABILITIES**

## **MODULE 47**

### **BEHAVIOR MODIFICATION**

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**Module 47 – Behavior Modification**

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**INTRODUCTION**

As a behavior modifier, the student will deal with observable and measurable behaviors.

Behavior modification is based on the premise that all behavior is learned and, therefore can be relearned. No behavior can be unlearned. If an organism behaves in an unacceptable (maladaptive, inappropriate, undesirable) manner, then it is the function of the behavior modifier to construct a program which will yield the elimination or modification of the unacceptable behavior and teach the client a new -adaptive, appropriate, desirable behavior which is acceptable.

In order to change, modify or eliminate the unacceptable behavior, a systematically arranged program is planned. This planned program is then implemented in a variety of settings (home, classroom, office, institution, etc.), but the principles remain the same. Observing, measuring and recording are ongoing requirements of the implemented program. After a specified period of time, the plan, techniques, tools and results are evaluated.

In this module the candidate will learn the underlying principles of behavior modification. The candidate will further learn the four basic steps in the behavior modification process and demonstrate his or ability to:

- I. Assess
- II. Establish a data baseline
- III. Implement a program for change
- IV. Evaluate the outcome

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**COURSE OUTLINE**

**THEORY:** The successful candidate will achieve a passing score on a written examination covering knowledge based on behavior modification principles. The application of this knowledge is necessary in the teaching and training of clients with mental and/or developmental disabilities.

**ASSESSMENT:** There will be a written comprehensive objective type test; multiple choice, true/false, and matching questions.

**MAKE UP TESTS MAY BE AN ESSAY TEST!!**

**INSTRUCTIONAL  
MEDIA:**

Study Guides

1. Twenty Questions
2. Behavior Modification Process
3. Principles of Mikulas

**TEXTBOOK:** Beirne-Smith; pgs 298-299; 305-307

**SYLLABUS:** Behavior Management, Module 47

**VIDEOTAPES:** Available in A/V laboratory

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**OBJECTIVES**

1. From Study Guide 3 – Principles of Mikulas, identify important concepts about behavior modification approaches and practices
2. What is behavior modification based on Introduction
3. What are the ongoing requirements for the implementation of the program
4. What are the four basic steps in the behavior modification process
5. Identify principles of behavior modification and learning
6. Identify the influence of learning and motivation
7. Identify the relationship of behavior modification and behaviorism
8. Give the definition of symptom substitution
9. Match the five properties of behavior modification with their appropriate corresponding descriptions:

Instructional Media:

- |    |               |                                  |
|----|---------------|----------------------------------|
| a. | Syllabus      | Twenty questions/answers         |
| b. | Study guide 1 | Behavior Modification Process    |
| c. | Study guide 2 | Behavior Modification Principles |
10. Identify the first **task** in behavior modification
  11. Identify the following areas of behavior assessment
    - a. Purpose
    - b. First step of behavior assessment
    - c. Focus of behavior assessment
    - d. Best source of assessment
    - e. How behaviors are defined
  12. Identify the following aspect of terminal behaviors
    - a. Target behavior
    - b. Purpose of small, progressive steps toward desired terminal behavior
    - c. Identify how the behavior modification program deals with ethical issues

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13. Define respondent conditioning
14. What are two other names for respondent conditioning
15. Define classical conditioning
16. Who is most associated with classical conditioning
17. Identify the elements of respondent conditioning
18. What are the important variables involved in respondent conditioning
19. Identify the following:
  - a. Extinction
  - b. Relaxation
  - c. Flooding
    - (1) Major advantages and disadvantages of flooding
    - (2) What is the key to flooding
    - (3) What is implosion, what is its relationship to flooding
    - (4) What does in vivo mean
    - (5) Identify the component treatment procedures of flooding
    - (6) Identify results of research on flooding as an effective and desirable treatment procedure
  - d. Desensitization
    - (1) Who is associated with the origin of desensitization
    - (2) Three basic components
      - (a) Describe each
      - (b) Sequential steps
      - (c) Significance of each step
    - (3) Therapeutic role of relaxation training
    - (4) Hierarchy of anxiety eliciting stimuli
      - (a) Determining anxiety eliciting stimuli
      - (b) Grouping stimuli
      - (c) Deciding which elements need to be treated
      - (d) Arranging stimuli categories into hierarchies
    - (5) Counter conditioning approach
      - (a) Measure “degree” of anxiety elicited by item of hierarchy
      - (b) Common criteria for proceeding to next item of hierarchy
      - (c) Sessions: length and number
      - (d) Demeanor of practitioner during desensitization
    - (6) Match variations of desensitization with their appropriate descriptions
      - (a) Identify Cautela’s general approach and four procedures
20. Describe aversive counterconditioning
  - a. Identify the approach to counterconditioning
  - b. Identify the primary use of counterconditioning
  - c. Identify the purpose of aversive counterconditioning
  - d. Identify the distinctions between counterconditioning and operant punishment

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21. Match the following items with their appropriate definitions
- a. Baseline
  - b. Contingency
  - c. Contingency contracting
  - d. Contingent event
  - e. Covert punishment
  - f. Discriminative stimuli
  - g. Fading
  - h. Feedback
  - i. Guidance
  - j. Modeling
  - k. Narrowing
  - l. Operant conditioning
  - m. Punisher
  - n. Punishment
  - o. Reinforcement
  - p. Shaping
  - q. Time out
  - r. Token economy
22. Identify the use of baseline in operant conditioning
- a. What is the relationship between the behavior and the baseline in operant contingencies
23. Identify the following behavior change strategies that are based on operant conditioning
- a. Stimulus control
    - (1) Description
    - (2) Different approaches
  - b. Reinforcing desirable behaviors
    - (1) Description
    - (2) Premack theory
    - (3) Ways to help initiate behavior to be controlled
    - (4) Variables affecting effectiveness of reinforcement
  - c. Contingency contracting
    - (1) Description
    - (2) Expectation
    - (3) Effectiveness of contracts

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- d. Token economies
    - (1) Description
    - (2) Strength of token system
    - (3) Situations where application of token system is most important
    - (4) Overall purpose
  
  - e. Extinction
    - (1) Description
    - (2) Effectiveness
  
  - f. Reducing nervous habits
    - (1) Description
    - (2) Examples
      - (a) Two ways of dealing with these habits
  
  - g. Punishment
    - (1) Description
    - (2) Relationship to behavior change
  
  - h. Stimulus satiation
    - (1) Description
  
  - i. Feedback
    - (1) Relationship to operant conditioning
    - (2) Description
    - (3) Examples
    - (4) Effects
24. Identify the description of modeling
25. Identify synonyms for modeling
26. Identify the “elements” that are observed in a behavior change program
27. Identify when modeling is most effective
28. Identify the following areas of assertive training
- a. Description of inappropriately unassertive behaviors
  - b. Purpose
  - c. Role of modeling



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29. Identify cognitive processes
- a. Give examples of cognitions
  - b. Identify how cognition changes affect other behaviors
  - c. Identify how a behavior change program affects cognitions
  - d. Identify descriptions of the following cognitive therapy
    - (1) Attribution
    - (2) Cognitive restructuring
    - (3) Coverant control
    - (4) Covert reinforcement
    - (5) Operant conditioning
    - (6) Rational emotive therapy
    - (7) Respondent verbal conditioning

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**PRINCIPLES**

- I. All behavior is learned and therefore more appropriate behavior can be relearned.
- II. Behavior is an act of a person that can be seen, heard, or touched, and therefore, observed, measured and recorded.
  - A. Operant behavior is controlled by its consequences
  - B. Respondent behavior is controlled by its antecedents.
  - C. Maladaptive behavior prevents a person from functioning adequately in his or her environment; this behavior is undesirable.
  - D. Adaptive behavior allows the person to function adequately in his or her environment: this behavior is socially desirable.
- III. Behavior modification offers a systematic, observable, measurable approach for eliminating maladaptive behavior or establishing an acceptable behavior
- IV. The four basic steps in behavior modification are:
  - A. Assessment
  - B. Establishment of a data baseline
  - C. Development of a program for change
  - D. Evaluation of the outcome.
- V. Using behavior modification techniques requires an understanding of these techniques and steps as well as a workable knowledge of the vocabulary
- VI. In the assessment phase, selection of a target or terminal behavior, which is incompatible with the undesirable behavior, is wise: i.e., a person cannot spit and sing at the same time.
- VII. It is necessary that the behavior modifier maintain records that can be easily understood by all persons involved in modifying the behavior of a client.

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VOCABULARY

**Define the following:**

Baseline  
Contingency  
Contingency contracting  
Contingent event  
Covert punishment  
Discriminative stimuli  
Fading  
Feedback  
Guidance  
Modeling  
Narrowing  
Operant conditioning  
Punisher  
Punishment  
Reinforcement  
Shaping  
Time out  
Token economy

**Define the following processes:**

Cognitions

Cognitive Therapy:

Attribution  
Cognitive restructuring  
Coverant control  
Covert reinforcement  
Operant conditioning  
Rational emotive therapy  
Respondent verbal conditioning

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**STUDY GUIDE 1**

**TWENTY QUESTIONS AND ANSWERS REGARDING BEHAVIOR MODIFICATION**

Twenty questions frequently asked regarding behavior modification.

- I. What is behavior modification?
  - A. A number of techniques all based on the principles of learning which are effective in changing the behavior of others (or oneself) in some specifiable, observable, and predictable way.
  
- II. Why use it?
  - A. Behavior modification is an effective method of teaching new skills and modifying problem behaviors.
  
- III. Does behavior modification replace other therapies?
  - A. Behavior modification may be used along with other methods, which are compatible with it. Use the method that brings results
  
- IV. What are the steps in modifying behavior?
  - A. There are four basic steps:
    1. First, you identify specifically the problem behavior that you wish to modify or the behavior deficit that exists. At the same time you set up the target behavior.  
Target behavior refers to the behavior you wish to take the place of the problem behavior or to correct the behavioral deficit.
    2. Second, you find how often the behavior occurs and under what conditions that particular behavior occurs, now, and keep recording the data during treatment. (Behavior is any act of an organism that can be seen heard, or felt and thus recorded.)
    3. Third, you arrange a change. If you want a behavior to repeat and grow stronger, you follow it with a rewarding consequence (positive reinforcer). If you do not want a behavior to repeat or grow, you make sure that the particular behavior is not reinforced and teach another behavior to replace it.
    4. Fourth, if after a period, you do not get the change you wish, then you must check your program. The most common causes of poor results are not having the correct reinforcer to teach a new behavior or not removing the consequence, which is reinforcing the problem behavior. Also, check to see if your directions are clear, is the environment structured correctly, and are your training steps small enough. Most important, have you given the program adequate time.
  
- V. How can we tell if it is working?
  - A. Only by measuring B-D-A. Meaning before, during treatment and after treatment.
  - B. Keeping records is a vital part of behavior modification. Sometimes changes occur slowly and are not dramatically noticeable. Only an on going account will tell how treatment is progressing. (Don't expect a high frequency behavior to terminate abruptly when you start treatment).

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- VI. What is a reinforcer and what does it do?
- A. A contingent event which makes it more probable that the person will behave in a similar way when in a similar situation.
  - B. A reinforcer (both positive and negative) increases the probability of the occurrence of the behavior that precedes it.
- VII. What about behavior you do not wish increased?
- A. You do not reinforce it. (It is important to observe the behavior and what follows it most carefully to find the reinforcer.) Very often attention (of any kind) serves to reinforce behavior you do not want. So, you must ignore (withdraw your attention) so that the behavior does not increase. Ignoring, includes NOT touching more than necessary, NOT talking to, or looking at, the client.
- VIII. How soon can you expect a behavior to stop when you ignore it?
- A. It varies. There may be short periods when it gets more frequent, and other behaviors that you consider more objectionable may occur briefly (ignore these, too), but be sure to keep on.
- IX. What things can be positive reinforcers?
- A. Positive reinforcers are highly individual as we all have our individual preferences, and these also vary at different times.
- X. What are the different types of positive reinforcers? When are they most frequently used?
- A. There are five broad categories:
    - 1. Edibles: food and drink.
    - 2. Manipulables: toys, jewelry, etc.
    - 3. Visual, tactile, olfactory, auditory stimuli; pictures, clay, perfume, music etc.
    - 4. Social reinforcers; attention, praise etc.
    - 5. Conditioned generalized reinforcers: money, tokens, stars, etc
- XI. Can reinforcers be used in combination?
- A. Yes, a good rule is to give something with something of yourself.
- XII. How often do you give a reinforcer?
- A. Continuously and immediately after each time the behavior occurs, until the behavior is learned, then gradually space out the reinforcer until you are giving it intermittently
- XIII. What do you do if the behavior continues?
- A. Return to the continuous schedule and then, very gradually space out the reinforcer.

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- XIV. Why is it important to go to an intermittent schedule of reinforcement?
- A. Research has clearly shown that to teach a skill, you must reinforce the behavior each time. If you stop reinforcing, the behavior will also stop. But, if you gradually space out the reinforcer, the behavior will be maintained for long periods of time with only occasional reinforcement. So, as soon as the behavior has been learned, begin to gradually space out the reinforcers.
- XV. What is meant by negative reinforcement?
- A. Remember, both negative and positive reinforcers act in the same way; that is they reinforce the behavior that directly precedes them. To have negative reinforcement, an aversive stimulus must be present. The response that terminates that aversive stimulus is negatively reinforced and therefore, the possibility of it being repeated is increased.
- B. Examples.
1. A baby is crying. This is an aversive stimulus to the mother. The mother picks up the child; the child stops crying. The act of picking up the child has been negatively reinforced by the act of being picked up.
  2. A boy talking in class is an aversive stimulus to the teacher. She yells, "Be quiet, Jimmy" He becomes negatively reinforced Jimmy received attention for talking, which may strengthen talking behavior.
- XVI. Why not use punishment (physical or verbal)?
- A. Such punishment suppresses behavior and is a negative reinforcer. As it is usually administered, this punishment will not permanently eliminate a behavior: although, for a time, it may reduce the frequency. Also, it is important to realize that the attention accompanying the punishment is often a powerful positive reinforcer.
- XVI. Why is punishment (physical and verbal) used so much?
- A. Because punishing behavior removes an aversive stimulus and, therefore, is negatively reinforced. This increases the likelihood of the punisher continuing to punish.
- XVIII. What can be used instead of punishment to control behavior?
- A. Alternatives:
1. Withdrawing a positive reinforcer, (e.g. ignoring attention-getting behavior).
  2. Reinforcing an incompatible behavior.
- XIX. What is meant by reinforcing an incompatible behavior?
- A. You reinforce a desirable behavior, which cannot exist with the undesirable behavior.
- B. Example:
1. A child cannot scream and talk at the same time; or walk and run; or destroy and build; or hit and help. We then, focus on training that incompatible behavior.
- XX. How does behavior modification differ from the usual ways society responds to problem behaviors?
- A. Behavior modification sees problem behaviors as faulty learning and a remedial program is set up to teach more adaptable behavior. Society usually punishes in response to maladaptive behavior without correcting the faulty learning. In short, behavior modification seeks to ACCENTUATE THE POSITIVE TO ELIMINATE THE NEGATIVE.

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**STUDY GUIDE 2**  
**BEHAVIOR MODIFICATION PROCESS**  
**EXPLANATIONS AND EXAMPLES**

I. ANTECEDENTS AND CONSEQUENCES

A. Introduction

1. Don't let these words fool you. You probably already know what an ANTECEDENT and a CONSEQUENCE are since antecedents come first, let's discuss them first
  - a. ANTECEDENTS
    - (1) Explanation
      - (a) An **ANTECEDENT** is a behavior, which occurs immediately before the problem behavior
      - (b) Some people think an antecedent actually triggers the problem behavior
    - b. EXAMPLES
      - (1) Nancy called John a little brat. Johnny hit Nancy. Calling Johnny a little brat is the ANTECEDENT for Johnny hitting Nancy.
      - (2) Mrs. Jones said to Steve, "Steve, I'm not telling you again; go and sit down!" Mrs. Jones making a request of Steve is the ANTECEDENT for Steve doing the opposite
      - (3) See if you can identify the ANTECEDENT in the following examples.
        - (a) Mr. brown went to his bedroom and got his brown belt. Brian went running away. Mr. Brown getting his belt was the ANTECEDENT for Brian running
        - (b) Mr. Jones sat down at the table and ate an entire strawberry pie by himself THIS ONE IS A LITTLE TRICKY. The ANTECEDENT for Mr. Jones eating the pie was his sitting down at the table
    - c. Remember:
      - (1) What happens just before the behavior is the ANTECEDENT.

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- (2) Antecedents are difficult to detect, hard to change, sometimes necessary I as in making a request
  
- d. CONSEQUENCES: (Just like "Truth or consequences")
  - ( 1 ) Explanation:
    - (a) A CONSEQUENCE is something which happens immediately after a behavior
  
  - (2) Examples:
    - (a) Some people think CONSEQUENCES actually control behavior.
  
  - (3) Examples:
    - (a) Johnny did his chores, then his mother gave him his allowance.
  
    - (b) The CONSEQUENCE of Johnny doing hi5; chores was receiving his allowance.
  
    - (c) David hit his little sister, so he was sent to bed
  
    - (d) The CONSEQUENCE of hitting his sister was him being sent to bed.
  
- e. See if you can identify the CONSEQUENCES in the following examples.
  - ( 1 ) Mike got all of his answers to his math. Problems correct, so his instructor gave him a gold star. Hope you knew the CONSEQUENCE was getting a gold star.
  
  - (2) Mr. Carson said to his wife, "Dear this was a delicious meal". "This" was the CONSEQUENCE of Mrs. Carson preparing a delicious meal.

**II. POSITIVE REINFORCERS (REWARDS)**

**A. Introduction**

- 1. Anything that happened after a person's behavior, which increases the likelihood that the behavior will occur more often, is a POSITIVE REINFORCER.
- 2. In other words Positive reinforcers INCREASE the frequency of behavior.



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B. Examples

1. After John did the dishes, his mother gave him one dollar. John did the dishes the next night too. The one-dollar was the POSITIVE REINFORCER since John began doing the dishes more often.
2. Mr. Jones said to his wife, "my, this roast beef is good tonight, dear". Mrs. Jones began serving roast beef more often
3. Before you look at the next example, remember that anything that comes **after** a behavior, which causes the behavior to happen more often, is a **positive reinforcer**. Mrs. Smith yelled at Johnny, " Johnny, stop hitting your sister" Johnny started hitting his sister more often
4. Try these examples: Check the ones that illustrate POSITIVE reinforcers and underline the reinforcer.
  - a. Johnny was screaming and crying. His mother yelled "Johnny, stop the screaming, or I will give you something to scream about." Johnny screamed even more. Sure hope you checked this one and underlined mom's yelling. Right???
  - b. Steve washed the car. His dad said "Thanks, Steve, the car looks great!" Steve said "sure dad, any time'."
  - c. Mary cleaned her bedroom, then her mother gave her a dish of strawberry ice cream. Mary didn't clean her room the next day.
    - (1) EXAMPLE (2): Should be checked and dad's comment underlined since it did increase the likelihood that the behavior would occur more often
    - (2) EXAMPLE (3): But what about example (3)? Did the behavior occur more often? Was the ice cream a positive reinforcer? (You're right if you answered "no" to all of these questions.)
    - (3) Remember a POSITIVE REINFORCER is something that comes after a behavior, which increases the likelihood that the behavior will occur again.
5. TYPES:
  - a. There are many different types of positive reinforcements
    - (1) People

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- (2) Places
  - (3) Things
  - (4) Activities
- b EXPLANATION OF TYPES:
- (1) People:
    - (a) Positive reinforcers can include friends, teachers, next-door neighbors and, of course mom and dad
    - (b) Sometimes just a kind word, a pat on the head, or a few minutes of conversation with any of these people can be positively reinforcing.
  - (2) Places:
    - (a) Positive reinforcers include going to a doughnut shop, hamburger stand, vacations, museums, zoo, beach, parks, or many others
  - (3) Activities:
    - (a) Positive reinforcers include such things as going bowling, painting, sports, sex, shopping, exercise, and many others.
  - (4) Note:
    - (a) If you have difficulty identifying your child's positive reinforcers, just watch what he or she does during spare time.
- c. Use of POSITIVE REINFORCEMENT:
- (1) Positive reinforcement is easy to use as long as we follow four simple rules:
    - (a) The QUICKER the reward is given following the desired behavior; the better the chances are that the desired behavior will increase.
    - (b) What is positively reinforcing one minute, may not be the next, so use a variety of rewards.

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- (c) Start off using positive reinforcement EVERY time the behavior occurs, but then gradually change to rewarding once in a while.
- (d) Always let the person know the behavior you are positively reinforcing. ) Examples;
  - i. What would you do in the following situations?  
Check your choices

C. Behavior to be reinforced: Steve came home on time.

- 1. \_\_\_\_\_ "That's nice."
- 2. \_\_\_\_\_ "Thank\_you for coming home on time."

D. Behavior to be reinforced: John made his bed in the morning

- 1. \_\_\_\_\_ " Hey, your bed looks great. "
- 2. \_\_\_\_\_ "You did pretty good this morning, John."

NOTE: In both examples, the correct choice tells exactly what behavior was being positively reinforced.

E. Can you list four rules about using positive reinforcement?

- 1. Give reward quickly. As soon as the behavior occurs
- 2. What is positively enforcing one minute may not be reinforcing the next minute. Use a variety.
- 3. Start using positive reinforcers every time, then once in a while F Make a list of positive reinforcers for your child or client
  - a. People
  - b. Places
  - c. Things
  - d. Activities

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III. SHAPING AND MODELING

A. INTRODUCTION

1. Positive reinforcement, as you remember, INCREASES the frequency of a behavior. However, if the behavior never occurs, what should do? (If you cannot see it, you cannot positively reinforce it. Of course, you would have to teach a new behavior.

B. SHAPING

1. Shaping is the procedure of positively reinforcing each step leading to the behavior you would like to teach. Sometimes the small steps leading to the desired behavior may not even look like the desired behavior.
2. Examples:
  - a. Does a baby's "ga-ga" really sound like daddy? Not at first, but after you begin positively reinforcing the baby each time, slowly, but surely "ga-ga" begins to sound more and more like "Da-de" and finally like "daddy".
  - b. Behavior you would like to see. Mark completing his homework. If you positively reinforced each of the following steps, look what you would end with:
    - (1) Mark bringing home a school assignment
    - (2) Mark sitting at the table with his work
    - (3) Mark looking over his assignment
    - (4) Mark doing just a little work
    - (5) Mark completing the assignment
3. REMEMBER
  - a. Of course, you wouldn't expect the change to happen overnight, and you would want to make sure that each little step along the way was positively reinforced.
  - b. In fact, most of the behaviors that we have learned have been shaped.
  - c. Can you think of all the little steps you learned when you first started driving a car?

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- d. What steps would you positively reinforce if you want to SHAPE these behaviors in a child?
- e. Good table manners
- f. Being polite to brothers and sisters
- g. Doing chores

**C. MODELING**

- 1. Another way parents teach their children new behavior, is through MODELING it for them.
- 2. Examples:
  - a. Whenever Mrs. Smith gets angry at Steve she hits him Whenever Steve gets angry at his younger brother, he hits him. Steve has MODELED his behavior after his mother's
  - b. What behavior is Mrs. Jones modeling for her daughter? Mrs. Jones is on the phone and eating ice cream. "Why yes, Helen, I'm on a very strict diet."
- 3. Remember: Whenever you do MODEL good behaviors for your child and you see him or her modeling you, positively reinforce him or her .
- 4. Your thoughts:
  - a. Can you think of a behavior you may have modeled for anyone?
  - b. Can you think of one you would like to model and positively reinforce?

**IV. BEHAVIORAL CONTRACTING (contingency contracting)**

**A. Introduction:**

- 1. Behavioral contracting is a method used to help parents get along better with their children.
- 2. A behavior contract is very similar to other types of contracts that you may already be familiar with.
- 3. Examples:
  - a. Signing a lease for an apartment or taking out a mortgage for a house is a contract.

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- b. A warranty on an appliance may be another form of contract
- 4. A behavioral contract can be used to INCREASE a desirable behavior or to DECREASE an undesirable behavior

**B. RULES FOR WRITING CONTRACTS**

- 1. Contracts should be in writing
  - a. Writing it down eliminates misunderstanding'
  - b. Writing it down helps everyone remember what the agreement was.
- 2. Contracts should be voluntary, and they should be signed by everyone involved.
- 3. The behavior, which the BEHAVIORAL CONTRACT concerns, should be specific.
  - a. Check the examples below which you think are specific
    - (1) \_\_\_\_\_John must clean up his room.
    - (2) \_\_\_\_\_John must hang up his clothes
    - (3) \_\_\_\_\_John must be dressed for school by 8:30 a.m.
  - b. Hope you checked (2) and (3). They are specific
  - c. But, why isn't (1) specific? Ask yourself what does, "clean his room mean?" Can you decide what is wrong with this example? If Steve behaves well tonight, he will receive a reward.
  - d. The behavioral contract must detail the positive reinforcers your child can expect to gain for fulfilling the contract Examples:
    - (1) If John picks up all his dirty clothes, then he may go outside to play.
    - (3) If Mary eats all her meat, then she may have dessert.
  - e. The behavioral contract should detail the punishment for not meeting the terms of the contract. Punishments should be fair and reasonable. Examples:

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- (1) If Cathy does not do the dishes, then she will not be allowed to go to the movies.
  - (2) If Stanley does not take his bath tonight, then he will not be able to watch TV tonight.
- f. The behavioral contract must include a bonus to guarantee positive reinforcement for fulfilling all the terms of the agreement

V. EXTINCTION

A. Introduction

1. An important point we made in an earlier meeting was that behavior is controlled by what happens immediately after it. Behavior is controlled by its consequence.
  - a. We can make sure that undesirable behavior is not repeated.
  - b. How do you think we can make sure that undesirable behavior is not repeated by not following it with unpleasant consequences?
  - c. We can make sure that undesirable behavior is not repeated by not following it with unpleasant consequences!

B. Explanation

1. EXTINCTION

- a. The word we give to the process of ignoring a behavior until it disappears. What bigger let down is there than to be ignored for something you have just said or done.
- b. Examples:
  - (1) Have you ever worked really hard on a job or prepared a fancy meal, and the person you did it for doesn't even mention it?
  - (2) Of course EXTINCTION can only be used for some behaviors - mainly small nuisance behaviors.
- c. Examples
  - (1) Mary constantly grabs her teacher's arm whenever Mary wants attention. Her teacher begins ignoring her, and pretty soon Mary stops grabbing her teacher's arm.

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(2) John is always teasing his brothers. When he makes fun of them, they cry. Then they decide to stop crying. They ignore or extinguish John's teasing behavior.

d. Remember:

(1) Of course, it is difficult to ignore bad behavior, especially when it's really getting on your nerves.

(2) But, just remember, if you can ignore it every time it happens, it will be EXTINGUISHED.

(3) Two tricky points to keep in mind about extinction.

(a) When you first start using extinction, you can expect a temporary increase in the behavior (EXTINCTION BURST).

(b) You have to ignore the behavior each and every time it occurs.

VI. Punishment:

A. Introduction: The following should help you understand:

1. What punishment is.
2. Some types of punishment
3. The limitations of punishment

B. Review

1. Positive reinforcement increases the frequency of a behavior
2. Extinction eliminates behavior and:
3. Punishment is a procedure for **decreasing** the frequency of a behavior.

C. Explanation:

1. Punishment provides an unpleasant consequence after a behavior, which causes the behavior to occur **less** often.



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2. Punishment does not eliminate behavior; it only tends to make it occur less often. But, sometimes the response to punishment can be unpredictable.

D. Examples

<b>BEHAVIOR</b>	<b>CONSEQUENCE</b>	<b>RESULT</b>
John yells at his father.	His father slaps his face.	John doesn't yell at his father as often.
Debbie throws her dirty clothes around.	Debbie's mother tells her "Debbie pick up those clothes or you can forget going out tonight."	Debbie doesn't throw her clothes around as much.

E. Types of punishment:

1. There are two main categories of punishment"
  - a. Social punishment
  - b. Physical punishment
2. Social punishment
  - a. Involves taking away some pleasant social interaction.
  - b. Examples: Johnny misbehaves. Mother says:
    - (1) "I don't even want to look at you right now, you make me so angry."
    - (2) "John, I don't want you around here, you've gotten me so furious at you for hitting your sister
3. Physical punishment:
  - a. Involves some form of painful physical contact or taking away a rewarding physical object.
  - b. Examples:
    - (1) Steve yells at his brother. Steve's father tells Steve to stop yelling at his brother and slaps him.

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- (2) Mike comes home one hour late. His parents then tell him "Mike, because you were late, you cannot use the car tomorrow."

F. Time out

1. Explanation:

- a. Time out is a procedure for decreasing an undesirable behavior.
- b. Time out involves removing the person from the reinforcing situation and placing him in a situation that is not as pleasant.

2. Example:

- a. You may have said, "Steve, starting now, you are grounded for a week. What you are actually doing is using time out you are placing Steve in a situation (staying at home) that is not as pleasant, or as positively reinforcing, as going out with his friends.

G. Limitations of punishment:

1. Explanation:

- a. There are several undesirable consequences to consider before you decide to use punishment.
  - (1) Punishment sets up escape behaviors.  
Example: You gave me an incorrect answer in this meeting and I punished you with scorn. Chances are, you will desire to escape from the uncomfortable consequence of answering questions, so you may never want to answer another question again, even if you are absolutely right.
  - (2) Punishment sets up avoidance behaviors.  
Example: If I punish you for talking at this meeting, you avoid the entire situation and not come to meetings at all
- b. Often times, the escape and avoidance behaviors caused by punishment are worse than the behavior being punished'

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2. Examples: Let's look at our examples of John and Debbie.

<b>BEHAVIOR</b>	<b>CONSEQUENCE</b>	<b>RESULT</b>
John yells at his father.	His father slaps his face.	John may avoid being around his father.
Debbie throws her dirty clothes around.	Debbie's mother tells her "Debbie pick up those clothes or you can forget going out tonight."	Debbie stuff the dirty clothes under the bed and says "Mom, I cleaned up my room".

3. Remember:

- a. Punishment sets up emotional reactions, such as anxiety and *for* nervousness. An anxious or nervous person cannot behave well or learn
- b. Punishment does not destroy the motivation for engaging In undesirable behavior.
- c. Punishments lose their effectiveness with continued USE::, and as time goes by l the parent is forced to use harsher and harsher punishments for the same behavior
- d. Parents who use physical forms of punishment model aggressive behavior to their children. "Johnny stop hitting your brother," yelled dad as he hit John
- e. The person delivering the punishment becomes associated with punishment. Would you like to talk to or be friends with someone who was always hitting you or yelling at you?

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**STUDY GUIDE 3**  
**PRINCIPLES OF MIKULAS**

Behavior modification is only **one** approach, among many others, for changing behaviors. The reason behavior modification can deal with such a wide range of problems, with varying degrees of effectiveness, is because the approach draws on several basic principles of human behavior that cut across many different problem areas and situations. Experimental studies are the main ways we refine our understanding of human behavior and evaluate and evolve our behavior modification practice.

Behavior modification is **experimentally** based. The assumption of psychology is that there is a set of laws that describes factors which regardless of what the procedures called (e.g. behavior modification, analysis, influence, nondirective counseling), the change must be based on these laws. And the closer the treatment procedure comes to using these laws, the more effective it is. It is not known exactly what these basic laws are, but the experimental psychologist believes that the information from experimental studies is the best approximation we have at present. The practice of behavior modification includes the technology of applying these principles to human problems. (Note: Behavior modification is more a technology than a philosophy of the nature of human beings.) As various change procedures are developed, they too are experimentally studied in terms of such questions as how effective are different approaches for different problems, and how can a specific procedure be improved? Therefore, behavior modification is **continually evolving and improving**.

When one looks at the range of psychological problems, one finds that the major variables responsible for the majority of most problems are variables related to learning and motivation. In some cases, this involves behaviors that were learned at one time or situation, but is considered undesirable at another time or place. Small children may be knocked down a few times by large dogs and develop a fear of dogs. If this fear persists into adulthood, persons with the fear may wish to rid themselves of it. People who began smoking cigarettes as teenagers for social approval may find several years later that they learned a more complex smoking habit, which is difficult to eliminate for more than a short time. On the other hand, many problems involve behaviors that the person has not learned, but needs to learn, such as how to study, relax, handle anxiety, or be more assertive. Behavior modification then, draws strongly on learning and motivation, and much of the practice consists of helping people reduce undesired learned behaviors and learn new desired behavior.

Behavior modification arose from the school of psychology called behaviorism, an approach that suggests the study of psychology should emphasize the understanding, prediction and control of behavior. A concern of people from the medical model orientation is that behavior modification only treats the symptoms without getting at the underlying cause. If the underlying cause is not treated, it may simply manifest itself in terms of some other symptoms, a phenomenon called symptom substitution. This type of reasoning causes some people to reject a behavioral approach as only tinkering with symptoms.

Many behaviors are maintained by anxiety. Consider, for example a person who feels anxious in social situations and has adopted smoking as a means to reduce anxiety. If the behaviorist merely stopped the smoking behavior, the person might turn to some other anxiety-reducing behavior, for example, excessive drinking. Superficially, it would appear that symptom substitution had occurred. However, if

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the behaviorist treated the behavior of feeling anxious, as well as smoking behavior, then there should not be a substitute symptom

**PROPERTIES OF BEHAVIOR MODIFICATION:**

1. Behavior modification is historical. It does not matter how the individuals got where they are or how they acquired certain problems. . The question is what do we do here and now? What currently elicits and maintains undesirable behaviors? What behavioral deficits currently exist? This does not mean we disregard historical information, for it is often useful. But historical information is used to help determine current variables affecting behavior. Sometimes historical information is unnecessary. If we had a case of a student with test anxiety, it might take a long time to determine the events of the past that led to test anxiety. Fortunately, we can probably adequately reduce the anxiety in a few hours without knowing the cause of it. Also, the cause of some current problem may be another, earlier problem that might now be resolved and need not be brought up again. Being historical, behavior modification is often faster than the approaches that require tracing down historical causes
2. Behavior modification avoids labeling and categorizing people and the use of words such as "abnormal. Classification systems may be useful for some administrative and communication purposes and may suggest variables to look at during assessment, but a label or category usually adds little to a functional analysis of the behaviors. On the other hand, labeling the person may be detrimental to the person or may cause the practitioner to overlook behaviors unique to that person.

Adjectives such as abnormal, deviant, and mentally ill, are often used to describe people and behaviors, but these are basically social, political constructs by which people in a particular culture, at a particular time, define acceptable and unacceptable behaviors. Homosexuality in our culture is generally considered deviant, but this attitude has been changing in our culture; and in some cultures, such as some early Greek cultures, homosexuality was considered superior to heterosexuality. Similarly, some creative people and great leaders show behaviors that are infrequent (not normal) in our culture, but does that make them deviant or abnormal? Such terms are too poorly defined to be of much use. Behavior, regardless of how it is classified (e.g. normal versus abnormal), is acquired and can be modified by the same principles of learning and motivation. Whether the behavior is acceptable or not to some peoples or cultures, IS a separate ethical issue

3. Behavior modification is sensible. The reasoning of behavior modification or some specific program can often be explained to clients, teachers, parents, ward attendants, and others in a way the makes sense to them. They need not accept some theoretical model or learn specialized terminology. When working with a client you can both know where you are going and why? When working with ward attendants in a mental hospital you get better results and cooperation when you reason with them. If you point out how one patient throws food in the cafeteria, because it results in the nurse going and sitting with him, then it is possible to suggest reasonable ways to reduce the food throwing. On the other hand, if you describe the patient in nonsensical ways to the ward attendant, you should not expect much help from the attendant in your treatment program. If parents go to a child psychologist, they usually want some reasonable and specific suggestions for specific problems They are not interested in psychological philosophizing or categorizing the child's behavior or developmental stage.

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4. One of the biggest advantages of behavior modification is that it does not require a one-to-one relationship between the behavior modifier, who establishes and supervises the programs, and the client. Thus, the behavior modifier can train teachers to carry out programs in classrooms. This is more effective and efficient than trying to deal with all the, individual children, particularly when the parents and teachers are often unknowingly responsible for the misbehavior they wish to change.

In addition, some behavior modification programs can be carried out with groups of people at a time. Thus, more people can be treated efficiently and cheaper than approaches requiring a one-to-one relationship between the client and a highly paid trainer.

5. Finally, a large part of behavior modification is concerned with self-control, approaches geared toward teaching people how to carry out change programs on themselves. This has many advantages, including freeing the practitioner's time and hence less expense to clients, greater attitude and behavior changes, if clients attribute the changes to themselves the clients learning general strategies that they can apply in a variety of situations, and the possibility of catching problems early, or even preventing them from occurring.

**BEHAVIORAL ASSESSMENT:**

The first task in behavior modification is to specify the problems and objectives in terms of measurable behaviors. It is not sufficient to say that a person is neurotic. Rather, it is necessary to specify which of the person's behaviors should be altered and which behaviors he does not have should be added.

Similarly, it is not sufficient to choose as an educational objective that the student develop "an appreciation of history", rather, it is necessary to specify exactly what behaviors are required of the student.

The purpose of behavioral assessment is to delineate (outline, list) behavioral deficits, inappropriate behaviors, and the frequency with which different behaviors occur, in various situations.

The first step of behavior assessment is to specify the behaviors in such a way that there is little question about whether they occurred. For example, if the behavior modifier were interested in how afraid a person is of heights, he might measure the change in heart rate when the person is at various heights, and might define fear in terms of this physiological response, or he might measure how high up a person will go by himself.

Behavioral assessment deals with behaviors and their interrelationships. It avoids mapping people into constructs or categories that cannot be directly observed or measured, but only indirectly inferred from some of the behaviors. If a person reports being "generally uptight most of the time", behavioral assessment focuses on his behavioral strengths and deficits (including interpersonal skills, vocational skills, thoughts, emotions, etc.) that lead to the person being "uptight". There is no need in behavior modification to add to this assessment hypothesized conditions of such inferred constructs as ego-strength, self-concept, or psycho-sexual development.

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One of the best sources of information for the assessment is to have the client keep a personal log or diary related to the specific problems. Behaviors are defined in terms of how they are measured, objective descriptions that others can observe and verify. In a behavior modification program it is necessary to objectively specify the **target** behaviors, the terminal behaviors that are to be produced for different conditions. It is not sufficient, and it is ambiguous, for a clinician to say that his goal is "self actualization", or "reorganization of self". The clinician must describe what behaviors the client would have to demonstrate for the clinician to attribute to the client something like self-actualization. Once the behaviors have been specified, it is much easier to decide on the procedures to produce the target behaviors, as well as to know when the goal has been achieved. Target behavior refers to the behavior you wish to take the place of the problem behavior, or to correct the behavioral deficit.

Example:      A client who bites his/her fingernails might have a target behavior of having beautifully manicured fingernails.

A self-mutilating client, who desires to have himself put into restraints, might have as a target behavior, wearing a wristwatch. Self-mutilating behavior is a social barrier to placement in the community. Also wearing restraints is a barrier, but wearing a wristwatch, even though unable to tell time, looks "socially acceptable".

Behavioral objectives should generally be stated in small, progressive steps - sequences of immediate goals on the way to long-range objectives. The target behavior for a nursery school boy may be for him to be "social" that is spend more of his time playing with others. The immediate goals may be sequenced such as .

1.      The boy watching others play games.
2.      The boy playing for five minutes with another child.
3.      The boy playing for ten minutes with another child.
4.      The boy playing for ten minutes with more than one child

By taking small steps, the behavior can be gradually changed and the amount of failure minimized, for the practitioner becomes quickly aware of any necessary changes in the procedure.

### **ETHICS**

All change agents, regardless of their theoretical model, are faced with a wide range of ethical questions. Choosing not to work with a client is an ethical issue. Choosing to minimize your influence on a client, and thus give greater weight to other sources of influence is an ethical issue. Choosing a model or approach that does not deal with your influence, as a change agent is an ethical issue.

The choice of terminal behaviors necessarily involves value judgements. Why is one target behavior chosen over another? Why is it better for the child to be social than non-social? Similarly, the choice of procedures to reach a goal often involves ethical issues, i.e. if a person is an alcoholic who can be helped, but the treatment is unpleasant, such as aversive counterconditioning, where electric shock might be paired with drinking, to what extent do the results of treatment justify the treatment procedures?

Basically, behavior modification does not specify a moral system. It is amoral, not immoral technology. It is concerned with variables affecting behavior change, independent of the ethical issues that arise at various decision points. Strength of behavior modification is that it specifies its procedures and goals

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and thus clarifies and spotlights the ethical issues that must be confronted. Many behavior modifiers are raising and discussing a variety of ethical issues related to behavior modification practice.

The field of learning and motivation not only deals with behavior change, once certain ethical decisions are made, but it is also concerned with how a person acquires a particular ethical system and how this affects his ethical behavior and decisions.

### **RESPONDENT CONDITIONING**

Someone smiling at us produces a pleasant feeling,. Pictures of good food may literally cause our mouths to water. A person with an automobile phobia may become anxious when she/he sees a car. Why should these responses occur? It is not instinctual that these stimuli elicit these responses; hence it probably is learned.

Perhaps, one reason a smile now elicits a pleased feeling is that in a person's, learning history, the stimulus of a smile was associated with other stimuli, such as affection, which produced a pleased feeling. The stimulus of the image of food was associated with the stimulus of the taste of the food, with the taste eliciting salivation The image of an automobile may have been paired with an anxiety producing stimulus such as seeing a close relative die in an automobile accident.

The learned associations may have been gradually built up over time, as in the case of the smiling and affection, or may have followed a single dramatic learning experience, as in the case of the automobile accident.

This type of learning is called *respondent conditioning* the learning model in which one stimulus, as the result of being paired with a second stimulus comes to elicit a response it did not elicit previously Usually this new response is similar to the response previously elicited only by the second stimulus. This method was first attributed to Pavlov who used dogs in his experiment. In the experiment, he placed food in front of the dog (unconditioned stimulus UCS). The dog predictably salivated (unconditioned response UCR). Then he began to ring a bell and place the food before the dog, soon the dog began to salivate (conditioned response CR), at the sound of the bell (conditioned stimulus CS) without the stimulus of food.

Respondent conditioning is often called **classical conditioning** and sometimes **Pavlovian conditioning**.

Elements of respondent conditioning, using Pavlov's dog example.

1. UCS= food
2. UCR= salivation
3. CS= bell
4. CR= salivation

Or in a classic study a loud noise was made behind 11 month old Albert whenever he reached for a white rat. This noise (UCS) was frightening (UCR) to Albert and resulted in fear (CR) of rats (CS) as well as of other furry objects (CR)

Three important variables affecting respondent conditioning are:



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1. The temporal order of the stimuli
2. Interstimulus interval
3. Response dominance

Temporal order- refers to the fact that you generally get the best conditioning if the CS precedes the UCS (i.e. you get the get results if the bell precedes the food), while you generally get little or no conditioning if the UCS precedes the CS (backward conditioning). Early attempts to treat alcoholism involved making the person sick and having him drink an alcoholic drink. This is backward conditioning and probably decreases the effectiveness of the program.

Generally you get the best results if the UCS is presented about one half second after the CS In other words, ring the bell, and present the food one half second later

Response dominance refers to the amount of anxiety elicited by the CS The bell is relatively neutral and causes no problem, but what if a snake were thrown at you every time you attempted to eat. Your response dominance would be for the snake and you would be negatively affected and probably not eat at all.

### **EXTINCTION**

Respondent conditioning is accomplished by establishing a contingency (relationship) between the CS and UCS/ The CS predicts to a certain degree, the onset of the UCS If we terminate this contingency so the CS is not associated with the UCS, eventually the CS will no longer elicit the CR. If the bell is never paired with the food again, eventually bells will no longer elicit salivation. This process is called extinction.

If a small child is scratched (UCS) by a cat (CS) and hurt (UCR), then the child may develop a fear (CR) of cats. If the child now encounters cats without anything happening, the fear may extinguish. Sometimes following extinction, the CR may gain in strength over a period of time. This is called spontaneous recovery. However, in practical situations, this is usually minimal; and with further extinction the CR will no longer appear. Extinction is the word we give to the process of ignoring a behavior

### **RELAXATION**

Teaching a client how to relax is often a powerful and needed therapeutic approach just in itself, for our culture provides more and more potential sources of stress and anxiety; and few people ever learn effective ways to relax. Thus many people report they are anxious and uptight. This may be associated with specific fears, a racing mind, or inability to get to sleep easily. Also each year more research relates many physiological problems, such as colds, ulcers, and cancer, to the stress a person experiences and how the stress is handled. Thus relaxation training is a common part of many programs. It is often useful to introduce this training early in clinical sessions because it calms the client down, shows him you have some powerful tools at your disposal, and gives the client a sense that there are things he/she can do about their own behavior.

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**FLOODING**

The non-gradual extinction approach of flooding consists of rapidly exposing the client to the CS, while minimizing the client's escape from the CS. Hence the approach is sometimes called response prevention.

To date, flooding has almost exclusively been used with situations that elicit anxiety. A major advantage of flooding is that it is much faster than gradual approaches, such as desensitization. A major disadvantage is that often it will increase the strength of the CR rather than extinguish it.

We do not know enough yet, to be always able to predict whether the anxiety will increase or decrease. The key to flooding is the rapid exposure to the CS, rather than more spaced presentations.

Flooding is a component of the treatment procedure of a variety of different therapies, including aspects of encounter groups, gestalt therapy and primal therapy.

A variation of flooding is implosive therapy or implosion. Implosive therapy is flooding with these characteristics:

1. All presentations of anxiety situations are done by having the client imagine scenes (Treatment based on imagined situations generalizes well to in vivo situations. )
2. The imagined scenes are often ones of exaggerated or impossible situations designed to elicit as much anxiety as possible.
3. The scenes are often based on hypothesized sources of anxiety, some of which are psychodynamic in nature. These sources of anxiety center around such things as hostility toward parental figures, rejection, sex and dynamic concepts like Oedipal complex and death wish.

Overall flooding and related procedures, such as implosive therapy, are fast approaches to extinguishing emotional reactions, primarily anxiety. However, in some cases more anxiety is built in rather than extinguished. Research on when flooding is an effective and desirable treatment, the best way to carry it out, and how it works is contradictory and incomplete.

**DESENSITIZATION**

Although in various ways desensitization (also called systematic desensitization) is basically the gradual counterconditioning of anxiety, using relaxation as the incompatible response.

The procedure, originally developed by Wolpe (1958), is one of the most powerful tools in behavior modification. It is not uncommon for a severe phobia or source of anxiety of long standing to be removed in a few weeks. Desensitization has three basic components: training in relaxation, construction of hierarchies and counterconditioning. **TRAINING IN RELAXATION:**

Since relaxation is to be used as the incompatible response in counter-conditioning anxiety, one of the first steps is teaching the client how to relax, usually using muscle relaxation methods. If this is not effective, then relaxation may be trained or elicited by some other means such as biofeedback, hypnosis, or drugs or the practitioner may decide to counter condition the anxiety with one of many incompatible responses.

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**CONSTRUCTION OF HIERARCHIES**

During assessment, it is necessary to determine what stimuli (situations and thoughts ) elicit anxiety. This is accomplished through a variety of assessment procedures, possibly including interviews, daily logs, questionnaires (such as the Fear Survey schedule), approach-avoidance behavior ( how close will the client come to the feared situation), and physiological measures.)

After the anxiety eliciting stimuli have been determined, they are divided into groups according to common elements. Some stimuli can be grouped according to a central theme, as in thematic hierarchy. For example, one person may feel anxious about being misunderstood. For this person these fears may center around the general theme of fear of adverse social evaluations. Some stimuli may be grouped according to a specific event, such as death of a loved one, or a divorce.

**COUNTERCONDITIONING**

The reduction of undesired elicited responses by respondent conditioning incompatible responses to the eliciting situations.

The sight of a bar may elicit a craving for a drink or the taste of one cigarette may lead to smoking another. In these cases, counterconditioning may involve conditioning in an unpleasant or aversive response to the stimulus situation.

Assuming we have a client who can relax and visualize scenes, we are ready to begin the actual counterconditioning. During counterconditioning it is necessary to have a measure of how much anxiety an item from the hierarchy elicits; this measure is the basis for deciding when to move to the next item. The two most common measures are physiological measures and subject report. When the client is reporting anxiety, it is important that he not interrupt the relaxed state. Wolpe has the client report anxiety by lifting a finger. The amount of anxiety can be determined by asking the client to lift his finger to questions about how many SUDS (Subjective Unit of Disturbance) the item elicited. The first item presented is a neutral item. If the client reports anxiety at this item, there probably is something about the particular desensitization setting that is producing the anxiety. And this anxiety will have to be dealt with before continuing with the specific hierarchies.

**CONTACT DESENSITIZATION**

A variation of sensitization is a combination of in vivo desensitization and modeling it is also called participation modeling and modeling with guided participation. Since desensitization and modeling are both effective ways of dealing with fear, their combination is quite powerful. It consists of three basic steps:

1. The client watches someone else (the model) approach the feared object.
2. The model helps the client approach the object
3. The model is gradually faded out as the client approaches the feared object

**Example:**

A female undergraduate student (S) who was unable to perform the required dissections in a biology course was guided through the following phases.

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1. The subject made no attempt to perform during the first phase of treatment, but merely observed the dissection procedures of her classmates. (S) located herself as far from the activities as was comfortable and watched for brief periods while occasionally reminding herself that the dissection animal, a fetal pig, was a dead non-sensing object. She gradually extended the time she observed and also gradually moved closer to the dissection scene as she became more comfortable
2. (S) obtained the assistance of a sympathetic female student who served as a co therapist (T) S momentarily placed her hand on T's while T was performing a dissection movement; S gradually extended the time she rested her hand on T's. When the foregoing could be done with ease, S progressively slid her hand forward on T's thereby approaching contact with the dissection instrument. This continued until S had her fingers directly on the dissection instrument, while T was also holding it. Finally, when S was comfortable with the arrangement she asked T to remove her hand, but to remain watching in case assistance was needed.
3. S practiced dissecting alone, first while T observed and then independently

Contact desensitization is often more effective than just modeling. And often faster and as effective as standard desensitization. A disadvantage is it can only be applied in situations, which can be readily modeled and gradually phased into. Such cases as fear of childbirth can be better treated by other approaches.

**ANXIETY ELICITING STIMULI**

After the anxiety eliciting stimuli have been determined, they are divided into groups according to common elements. The main pitfall is that the behavior modifier may group stimuli according to an inappropriate theme or even. Fears of being in filled buses, crowded elevators, and rush hour traffic jams, may be grouped according to a theme of a fear of crowds of people. The real theme, however, may be a fear of being confined in a small area. Determining the common elements or themes is a problem solving skill that comes with practice and is aided by supervision

After the fears and sources have been grouped, it is necessary to decide which need to be treated Some fears are adaptive fears and need to be left alone. A high school student felt anxious about smoking marijuana with friends in the school bathrooms. This fear should not be decreased, primarily because of local laws and enforcement. A hierarchy can be set up using a SUD (subjective unit of disturbance). The subject reports his feelings of anxiety in terms of SUDS the following is a hierarchy used to treat a 27-year-old law student with a fear of eating in a public place

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<b>SUDS</b>	<b>ITEM</b>
(95) 1	Having dinner at a girl friend's house with her parents present
(85) 2	Having dinner out with a girl
(80) 3	Having breakfast out with a girl.
(70) 4	Having dinner out with your parents.
(60) 5	Having dinner alone at an unfamiliar restaurant
(50) 6	Having dinner at the university cafeteria with some class mates
(45) 7	Having dinner at the university cafeteria by yourself.
(40) 8	Having dinner alone in a familiar restaurant.
(35) 9	Having dinner at an old friend's house.
(30) 10	Having lunch at the cafeteria
(25) 11	Having breakfast at the cafeteria
(15) 12	Having breakfast at a familiar restaurant on a Saturday morning
(10) 13	Having lunch with a long time friend
(5) 14	Having lunch in your apartment

Following a no anxiety presentation of the neutral item, the client is presented with the lowest item on the hierarchy. He imagines this until he signals, as by lifting his right index finger that he is beginning to feel anxious. When he signals anxiety he is told to "stop the scene and relax" Relaxation here may be facilitated by having the client shift to imagining a personally pleasurable scene. If the client imagines the hierarchy scene for about 10 seconds without signaling anxiety, he is again told to "stop the scene and relax". Because great individual differences occur between people concerning how quickly they can begin imagining scenes, some practitioners have clients signal, as by lifting the left index finger, when they begin clearly imagining the scene. The ten seconds, or whatever amount of time is appropriate, is then measured from this point.

After a scene has been stopped and the client has relaxed briefly, the same scene or a variation of it, is presented repeatedly until it no longer elicits anxiety, a common criterion being for clients to be able to imagine the scene two successive times without signaling anxiety At this point, the next item on the hierarchy is presented until it is counter conditioned and so on through the whole hierarchy. Through his signaling the client determines the rate at which he goes through the hierarchy, a very reassuring fact to many clients who do not want to be pushed into unpleasant situations too fast. A safe and sure approach is to stay with each item until it elicits no anxiety However, desensitization may be accomplished by substantially reducing the anxiety associated with each item, but not to (0) (e.g., reducing it from 40 to 15 SUDS) before moving on to the next item. This probably depends on

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generalization of the counterconditioning down the hierarchy as well as up. In one case, reducing the anxiety of each item by only 50% was found to be effective

The length of counterconditioning sessions and the number of sessions per week vary greatly ~ and should be geared to the, client. Some clients have been desensitized in one session (lasting -A several hours), however it is usually wise to start with short sessions (15-20 minutes) and J gradually build up longer sessions (45-60 minutes) with about 2 sessions per week. It is usually suggested to end a session with the successful completion of a scene. Also, at the beginning of a session it is best to start lower on the hierarchy than where you left off the session before This allows for some therapeutic loss or spontaneous recovery between sessions. Finally, to help the client maintain attention, it is desirable during sessions to slightly alter the scene and switch back and forth between different hierarchies.

The practitioner needs to be flexible during desensitization. Feedback from the client during or after a session my alter how the practitioner presents scenes or how much time he allows the client to imagine a scene before stopping. It is also common to alter or add to the hierarchy along the way For example, a client may rate an item as 50 SUDS; but when imagining it during desensitization, it is 80 SUDS With a little practice, the whole desensitization procedure can become fluid.

The items in the hierarchy may be approached by putting the client in the actual situations (in vivo); but generally in desensitization the client merely imagines being in the situation, "living" it as realistically as possible Usually the practitioner begins by describing the scene in some detail while the client imagines the scene One reason for using imagined situations is that they generally produce less anxiety than the in vivo ones and hence are a better starting point. A second reason is that using imagined scenes gives the practitioner greater flexibility, for any situation can be created in the imagination, while for many situations it may be impractical or inefficient to go out to them or simulate them in the clinic.

**Desensitization PROBLEM**

Client may not learn muscle relaxation sufficiently for counterconditioning. If this is the case, relaxation may be produced by other means such as drugs or hypnosis

1. Client cannot visualize scenes well enough to use imagined scenes. This can be helped by having the client practice imagining neutral scenes or by presenting the scenes via hypnosis, slides, videotapes or In vivo stimuli.
2. Sometimes the client can visualize all right, but it is suspected he is visualizing incorrect scenes (perhaps none of the practitioners scenes elicit anxiety) It is then desirable to have the client verbalize what he is imagining for a few times. .
3. An unsuitable hierarchy may be in place often noticed when desensitization goes too slow or too fast. Possibly wrong theme, weak starting point, or a client that does not consider this an irrational fear, but something truly dangerous. This type of hierarchy is not appropriate for real danger fears.

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**VARIATIONS OF DESENSITIZATION**

**I. GROUP DESENSITIZATION**

An advantage of behavior modification is that in many situations it is applied to groups of people at a time, thus saving time and expense. To apply desensitization in groups, it is necessary to have a hierarchy common to all the clients. This is usually more easily accomplished if the fear is relatively common, specific, and not complicated with other psychological problems. The second requirement is that the rate through the hierarchy should be geared toward the slowest client for each item; you do not advance to the next item until everyone in the group has been desensitized to the current item. This can be used with a variety of phobias; including acrophobia (fear of heights), claustrophobia (fear of enclosed places), and sexual fears. Also useful in fear of public speaking and fear of spiders.

Other researchers have devised mechanized procedures, which would free up the practitioner's time. Wolpe described a case in which the client, under the behavior modifier's supervision, made a tape of the hierarchy items and relaxation instructions. Then with a slightly modified tape recorder the client was able to treat test anxiety in a group of clients by administering the desensitization through a tape-recorded set of instructions.

Lang computerized much of desensitization with equipment called DAD (device for automated desensitization). DAD presents, via tapes instructions in hypnosis and relaxation and prerecorded hierarchy of items when the client becomes anxious DAD gives instructions to stop visualizing the scene and relax. DAD carries out desensitization effectively, and clients do not object to working with DAD.

**II. SELF DESENSITIZATION**

The client learns to relax primarily through the use of tapes. The practitioner helps the client construct the hierarchies and instructs him in desensitization procedure and then the client desensitizes himself, perhaps with the aid of tapes. One study of highly fearful snake phobias found that clients could successfully desensitize themselves using only a desensitization manual and a record of relaxation instruction. In this study the self-desensitization was as effective as therapist-administered desensitization. The research on group desensitization, mechanization of desensitization and self-desensitization shows that in at least some situations, a one to one relationship with a human practitioner is not necessary and perhaps inefficient or undesirable.

**III. PERVASIVE ANXIETY**

Desensitization requires being able to specify the stimulus situations that elicit anxiety. Sometimes a client seems to be anxious most of the time this is called pervasive or free-floating anxiety. When such a state is not caused by organic disorder, there are two basic possibilities:

- A. There are a few common situations or stimuli that elicit anxiety, which are easily dealt with by desensitization.
- B. There are many different stimuli that elicit anxiety, perhaps making standard desensitization impractical.

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The most common way of dealing with this latter situation is to emphasize general self-control approaches to anxiety control, perhaps, aided at first by drugs that facilitate relaxation. This then, amounts to self control training, plus in vivo counterconditioning.

Cautela's more general approach to pervasive anxiety consists of four procedures.

1. **REASSURANCE**  
The client is reassured that the practitioner will always be ready to help.
2. **DESENSITIZATION**  
The client is desensitized to abstract concepts (e.g. people or responsibility) related to the anxiety.
3. **IN VIVO RELAXATION**  
The client is taught how to relax himself and to use this in situations that cause anxiety.
4. **ASSERTIVE TRAINING.**  
The client is taught to assert himself in situations in which he was inappropriately passive.

**IV. AVERSIVE COUNTERCONDITIONING**

- A. We have seen earlier how counterconditioning can be used to reduce aversive-avoidance approach reactions to situations, we will see the opposite, use of counterconditioning to reduce unwanted positive- approach reactions. This is the procedure of using the response to an aversive (unpleasant) situation as the incompatible of response. i.e a person addicted to some form of drug (heroin, alcohol, tobacco) has positive associations to a particular bar and drinking friends, a calming effect associated with lighting up a cigarette, a reduction of withdrawal symptoms after taking more heroin, or socially approved relaxing of inhibitions associated with drinking alcohol. These types of positive associations continually make it more probable the person will again use the drug, thus strengthening the addiction Even though the long range effects of using the drug are undesirable and even aversive. The logic of aversive counterconditioning is to pair situations that elicit the undesired positive response (the handling and taste of a cigarette) with stimuli that elicit a dominant, incompatible, aversive response ( the reaction to electric shock) as a way of reducing the positive reaction.

Aversive counterconditioning is primarily used with self-rewarding behaviors. The person smoking an undesired amount of marijuana is reinforced (rewarded) for smoking by the results of the smoking. The person who is sexually aroused by specific stimuli (people of the same sex, young children, certain types of clothes) is reinforced by the sexual arousal and resulting sexual fantasies and behaviors. For example, aversive counterconditioning may involve electric shock paired with photos of young children that elicit undesired sexual arousal. Because aversive counterconditioning is often unpleasant, it is generally restricted to behaviors that are difficult to treat by other means and to situations in which the advantage of cure more than offsets any disadvantages of the procedure. In reality, many clients have reported they found aversive counterconditioning less pleasant than interpersonal probing, interpretations, and evaluations they experienced in some other forms of therapy. However, the use of aversive events certainly raises ethical questions and treats problems such as some clients disliking treatment, some clients becoming more aggressive or more anxious, and the fact that some procedures cannot be used with some clients (i.e. EST with some cardiac patients).



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Aversive conditioning is based on respondent conditioning, the systematic pairing of two sets of stimuli, one which elicits the undesired response and one which elicits the aversion response. The stimuli are paired independent of what responses the client makes. The clients responses are only a measure of the progress of the conditioning.

**OPERANT PUNISHMENT**

Operant punishment is based on operant conditioning. Here the aversive stimulus is presented contingent upon a particular response of the client and usually occurs, and only if, the client makes a response i.e. consider the use of an unpleasant odor in the treatment of overeating:

1. In aversive counterconditioning, the odor would be paired with cues that tend to elicit or encourage overeating, as a way of weakening the support for overeating.
2. In operant punishment, the odor would be paired with the response of overeating as a way to suppress the act of overeating.

**NOTE THE AVERSIVE STIMULUS IS CONTINGENT ON STIMULI IN ONE CASE AND RESPONSES IN THE OTHER !!**

**BASELINE:** The rate of behavior before intervention

**CONTINGENCY:** The relationship between a person's behavior and some resultant event. A student receives a certain grade as a result of achieving a certain test score. A child is reprimanded for using certain words. The contingency is the work expended for the grade, using the certain words.

**CONTINGENT EVENT:** The result of the contingency. If you study (contingency, you will earn an "A" (contingent event)

**CONTINGENCY CONTRACTING:** A variation of operant procedures is contracting, a program in which the operant contingencies are well specified and clearly understood by everyone involved. These contingencies – reinforcement and punishment that can be expected for different behaviors – are formalized in a contract, which is often written. Sometimes the contract is imposed on people, but often the best approach is to negotiate, as much as possible, with all the people in the contract.

**FADING:** Involves taking a behavior that occurs in one situation and getting it to occur in a second situation by gradually changing the first situation into the second. A small child might be relaxed and cooperative at home, but frightened and withdrawn if suddenly put into a strange classroom this fear can be circumvented if the child is gradually introduced to situations that approximate the classroom. Fading is important when a client learns new behaviors in a restricted environment, such as a clinic, hospital, or halfway house. Taking the person out of such a setting and putting him directly back into his home environment may result in a loss of many of his new behaviors and skills. It is preferable to gradually fade from the therapeutic environment to the home environment

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**The difference between fading and shaping is that shaping involves approximations on the response side, while fading involves approximations on the stimulus side.**

**FEEDBACK:** Information to the individual about the effects of their behavior.  
To move your arm requires feedback from the muscles of your arm about the effects of movement. Speech utilizes feedback from the tongue and lips, as well as auditory feedback from hearing your own voice. Education is guided by feedback on tests and papers. Every time we do something from a simple movement, to a complex social interaction, we receive varying amounts of feedback about what effects our behavior had on others, our environment and ourselves. This feedback guides our current

By keeping in mind that operant conditioning is part of feedback; it keeps us from overlooking the other important effects of feedback. When parents punish their children they should also give them feedback about exactly (punishment contingencies) they are being punished and what are preferable alternatives. Managers should not simply praise their workers, but should point out precisely what the workers did that was praiseworthy.

**THE EFFECTS OF FEEDBACK ARE:**

- A. Feedback may be reinforcement or a punishment. Receiving an " A" on a test may reward a student so that he maintains the same approach to studying for the next test.
- B. The feedback may reduce changes in motivation; such as the goals a person sets for himself. Receiving an "A" on a test may motivate the student to work harder in the class.
- C. Feedback may provide informative cues that guide learning and performance. As a person who does poorly on a test may see that it is because the test emphasized the class lectures, which the student ignored.
- D. Feedback may provide a new learning experience of rehearsal of previous learning When getting a test back a student may learn the correct answers to questions that he did not know.

**GUIDANCE:** Physically aiding the person to make some response.

**MODELING:** Involves a change in a person's behavior as a result of observing another person, the model. Thus a way of initiating behavior, particularly with a child, is to have the person observe someone doing the desired behavior and encourage imitation of the behavior.

A person's behavior often changes merely as a result of observing the behavior and behavior consequences of someone else. A teenager may adopt some of the dress and mannerisms of his socially acceptable peers. Behavior change that results from observation of the behavior of another is called modeling.

Modeling is also called observation learning, imitation, vicarious learning, and learning. What is "observed" is the behavior of the model, the

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consequences of this behavior, and the verbal cues and instructions of the model?

Modeling, like most other approaches is most effective when coupled with other procedures. i.e. in reducing fears, contact desensitization, a combination of modeling and guided participation, is generally more effective than just modeling.

**NARROWING:**

A second stimulus control approach called narrowing, involves restricting behavior to a limited set of stimuli. A person who over eats probably is eating in many situations. This results in many discriminative stimuli (e.g. reading, watching TV, having a drink, socializing) cuing the tendency to eat. To cut back on this, we might restrict the eating to one place and certain times. Or in a reducing smoking program, we might restrict smoking to when the client is sitting a certain chair in the basement.

**OPERANT  
CONDITIONING:**

If the contingent event makes it more probable that the person will behave in a similar way when in a similar situation, the event is called reinforcer. BF Skinner is the person associated with operant conditioning.

Positive reinforcement is an increase in the probability of a behavior due to an increase in the contingent event. Carol, a new manager in a company I began praising workers for submitting their reports on time. This increased on time reports. Used properly it is the most powerful of all behavior tools

Negative reinforcement is an increase in the probability of a behavior due to a decrease in the contingent event. A person learns to use relaxation skills to offset anxiety, with the decrease in anxiety being a negative reinforcer. A client is reinforced for putting out a cigarette by the negative reinforcer of the offset of the hot smoke in his face. Thus negative reinforcement is based on the decrease of something undesired such as pain or anxiety. Negative reinforcement is not punishment. Reinforcement by definition is an increase in the probability of the behavior, while punishment is a decrease. Negative reinforcement is the basis of escape conditioning. Learning to escape an aversive situation and being reinforced by the decrease in aversion. Scotty may learn to leave a neighbor's house when the neighbor gets drunk and obnoxious.. Many politicians avoid important issues in which no matter what position they take a moderate number of people will get mad and perhaps later vote against them. Votes and money are two strong reinforcers accounting for much political behavior.

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PUNISHER:	If the contingent event makes the behavior less probable than the event is called a punisher.
PUNISHMENT:	Punishment of one behavior suppresses that behavior and results in other behaviors occurring. When a mother spansks her child the behavior he is engaging in is disrupted (stopped), but then he may whine or act out in another way. Punishment is not a particularly efficient or desirable approach.
REINFORCEMENT:	There is no clear agreement on the nature of reinforcement. It is also not clear whether reinforcement affects learning and / or motivation. That is, does the reinforcement somehow strengthen the learning, such as facilitating the physiological changes that underlie the learning and / or does the reinforcement change the person's motivation, such as providing incentives for certain behaviors.
REINFORCER:	If the contingent event makes it <b>more</b> probable that the person will behave in a similar situation, the event is called a reinforcer
SHAPING:	Involves starting where the client is, taking small enough steps so the client's behavior smoothly changes, providing reinforcement and support for the changes, and catching mistakes or problems early because of the small steps. Practitioners often also need to use shaping when trying to change the philosophy of programs of the agency or organization where they work.
TIME OUT:	Time out (or time out from reinforcement) is the punishment procedure in which the punishment is a period of time during which reinforcement is not available. For example, if a child misbehaves, he may be sent to spend minutes in a time out area, perhaps a screened off corner in the back of the classroom.
TOKEN ECONOMY:	<p>In some contingency contracting programs. the client is reinforced with tokens (poker chips, marks in a chart etc.) Which can later be exchanged for a choice of reinforcers.</p> <p>By having a large number of items and privileges available on a reinforcement menu, the tokens are reinforcing for most of the people most of the time this reduces the problem of people being satiated by a particular reward.</p> <p>Strength of the token economy is that it deals with the issue of delay or reinforcement. The tokens are often easily dispensed and can be given fairly immediately after the desired behavior for example. a teacher may walk around a classroom putting checks on each students board for appropriate behavior and accomplishment. The checks are immediately reinforcing, even though they will not be cashed until later.</p>

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Most situations in which contracting is applicable also lend themselves to token economies. This includes classrooms, businesses, mental hospitals, prisons, half-way houses, communities and the military.

**USES OF BASELINE IN OPERANT CONDITIONING:**

Operant conditioning is the establishing of a behavior contingency that alters the probability of a behavior ~ from its baseline. If we terminate the operant contingency then the behavior will often return toward the baseline level, a process called extinction. Thus reinforcing a behavior increases its probability from the baseline; while later withholding the reinforcement extinguishes the behavior back toward the baseline. Punishing a behavior will reduce its probability from the baseline.

**STIMULUS CONTROL**

Altering the stimulus situations in which behaviors occur and reinforcing them, extinguishing them and/or punishing undesired behaviors, reducing the reinforcing effects of events that support undesired behaviors, and combining operant procedures with other approaches.

One approach is to remove the discriminative stimuli the i.e. , the undesirable behavior i.e. remove ashtrays on the table to lessen "smoking" cues. Eliminating cues and narrowing can often be combined. For example, in Improving study habits an important component is establishing good study areas. If a student sits on the sofa when studying, eating, listening to music and interacting with dates, then the sofa will cue thoughts, feelings and behavior that may be incompatible with studying. It is preferable to set up an area in which nothing takes place except studying. (Remove from the area stimuli (e.g. pictures, food) that cue other behaviors.

Similarly, treatment of insomnia might involve only going to bed when sleepy: not reading or eating or watching TV in bed (all wakeful stimuli). Stimulus control deals with the **antecedent** side of operant conditioning.

**REINFORCING DESIRABLE BEHAVIORS:**

The most common operant approach consists of reinforcing desirable behaviors. And this should generally be a component of all operant programs, even when the emphasis is on some other approach, such as extinction. It is important to identify reinforcers and use them. Surprisingly, it is often overlooked that we must identify what actually is reinforcing to the person, not what we expect to be reinforcing to him. A good approach is to ask the person what IS reinforcing. Events we may consider not to be reinforcing, in fact are. A common example is the teacher who yells at a student as an intended punishment, when really the teacher may be reinforcing the student with attention and/or causing the student to receive social reinforcement from his peers for getting the teacher mad.

**PREMACK THEORY**

Suggests that high probability behaviors can be used to reinforce lower probability behavior also called "grandma's rule". Telling a child that he must eat his carrots (low probability) before he can go out and play (high probability)

**WAYS TO HELP INITIATING BEHAVIOR TO BE REINFORCED**

To reinforce desirable behavior, the behavior must first occur. **If** a catatonic patient has not said anything for five years, it would not be an effective approach to wait for him to say something to reinforce his

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talking Thus an 1mportant part of the operant approach is to use ways to initiate the behaviors to be reinforced There are many ways to do this, including shaping, modeling, fading, punishment and guidance. Several variables affect the effectiveness of reinforcement. The three most common are:

1. Amount of reinforcement
2. Delay of reinforcement
3. Schedule of reinforcement

Amount of reinforcement refers to both the quality and quantity of reinforcement Generally as the amount of reinforcement is increased the effect of reinforcement is increased

Delay of reinforcement refers to the amount of time between the person's behavior and the reinforcement for the behavior. Generally, you get the best results with reinforcement occurs right after the behavior. As the delay of reinforcement increases, the effectiveness of the reinforcement diminishes. If a student turns in a paper and gets it back two weeks later, the reinforcing effects of the " A" rate much less than if the paper were returned the next day

If a child is required to do specified tasks around the house for his allowance on Friday, we find the child lax in doing the chores at the beginning of the week, but working well the Thursday or Friday. This can be improved by combining token economy with the procedure. i.e. Having a chart upon which stars are placed for compliance with chores and then having the allowance be contingent upon the number of accumulated stars.

Schedule of reinforcement refers to the pattern of reinforcement by which the reinforcers are related to the responses. Learning is faster with continuous reinforcement than with intermittent reinforcement. Therefore, it is strategic to first teach the behavior under continuous reinforcement and than gradually switch to intermittent reinforcement to maintain it.

### **EXTINCTION**

Establishing a contingency between a behavior and a contingent event is operant conditioning, terminating the contingency is operant extinction. Reinforcing a behavior increases the probability of that behavior; withholding the reinforcement decreases the probability. A twenty one-month-old baby had tantrums, which were reinforced by his parents, after he was put to bed If the parents left the room before he went to sleep, he would scream until they returned to the room. This tantrum behavior was easily extinguished by simply letting him scream and rage at night. Without reinforcement (returning to his room) eventually there were no more tantrums. It is generally better to emphasize reinforcing a desired behavior in place of the undesired behavior. A problem is that it may be difficult or undesirable not to attend to some behaviors, such as destructive or disruptive behaviors. Extinction may also have emotional side effects such as frustration, anger, or confusion. These side effects can be minimized if we are simultaneously reinforcing alternate behaviors

### **REDUCING NERVOUS HABITS**

Many people have nervous habits such a tics, biting fingernails; some forms of stuttering Two ways of dealing with these habits are negative practice and habit reversal

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**Negative Practice**

The reduction of a nervous habit by continually repeating the response in as realistic a way as possible. A person with a nervous twitch of the mouth would intentionally make this twitch repeatedly until fatigued. A 26-year-old man had been banging his head into his pillow while asleep resulting in restless sleep and damage to the skin of his forehead. Negative practice consisted of banging his head over and over in the same manner he used while asleep, as observed and photographed by his wife. The negative practice was done before he went to sleep and done to the point of being aversive. Four such sessions virtually eliminated the habit and resulted in peaceful sleep and less fatigue and anxiety the next day.

**Habit Reversal**

A more complicated program for dealing with nervous habits. The client is first taught to be aware of each occurrence of the habit. Then the client is taught to make a response which is incompatible with the undesired response such as clenching your fists at your side is incompatible with nail biting. This incompatible behavior is made whenever the undesirable habit occurs or is about to occur, and the client is taught how to do this in everyday situations. Successful with nail biting, thumb sucking and head jerking.

**PUNISHMENT**

The most common approach people use to reduce undesired behavior particularly in others, is punishment. This consists in applying a contingent event to a behavior that results in a **decrease** in the probability of the behavior. There are two types of punishment, positive and negative.

**Positive Punishment**

Is a **decrease** in the probability of a behavior due to an increase in the contingent event. If each time a child starts eating his mother's houseplants, she shows disapproval, and if this reduces the probability of him eating the plants in the future, then the disapproval is positive punishment. Disapproval, criticism, pain and fines are common forms of punishment this is what most people refer to when they use the word punishment. If every time Al tells his algebra teacher he is having trouble keeping up with the class he is then given extra remedial work, then the extra work may act as a punisher resulting in a decrease in his requesting help.

**Negative Punishment**

Is a decrease in the probability of a behavior due to a decrease in the contingent event. This corresponds to a decrease in something desirable following some behavior. If every time a person stutters it briefly turns off a movie he is watching and describing, and if this results in a decrease in stuttering, then the offset of the movie is a negative punisher. Our culture is punishment oriented. One reason is that people often punish out of their own anger or inability to handle a situation. Also there is an immediate suppressing effect of the punishment which is reinforcing to the punishing agent, even though the long term effects of the punishment may be ineffective. It is then used for its disruptive effects rather than its suppressive effects. As part of a self-control program a person may wear a rubber band around his wrist which he snaps on the underside of his wrist to disrupt unwanted thoughts or feelings. Also, just wearing the rubber band then acts as a reminder about his behavior.

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**Covert Punishment**

would consist of carrying out the punishment in the imagination There IS almost no information on such an approach. a 24 year old male "paranoid schizophrenic" who had auditory and visual hallucinations of his deceased mother and brother. The hallucinations were eliminated by teaching the client to punish them (hallucinations) with thoughts of eating cottage cheese, which the client disliked.

**STIMULUS SATIATION**

A client is flooded with the reinforcer repeatedly until it loses much or all of its reinforcing effect, a child who keeps playing with matches might be sat down with a large number of matches to strike and light. This would be continued until lighting matches lost their reinforcing effect.

**ASSERTIVE TRAINING**

Many people are inappropriately unassertive. They are not standing up for their rights, or honestly and openly expressing their feelings and opinions. Thus, they are not as personally and professionally successful as they might be Assertive training is not intended to make the person aggressive, a common error in some therapy programs, but to teach the person reasonable, appropriate, effective assertive behavior. What such behaviors are naturally varies with the clients and the situations they encounter. Assertive training then, is equally applicable with clients who are too aggressive, but such cases are less frequent than unassertive cases. Much of assertive training is discrimination learning, for the client generally does not know what the appropriate assertive behavior is, or is ineffectual at acting in an assertive manner

Modeling is often used to demonstrate the desired assertive behavior.

Assertive training can be carried out in small groups. Advantages to assertive training in groups include the fact that with more people you can have a greater variety of models and better approximate some social situations, the groups can learn from watching others be assertive.

**COGNITIONS OR COGNITIVE PROCESSES**

Cognitive processes or cognitions refer to a range of processes within the Individual that has varying degrees of effect on the person's behavior Included are perceptions: beliefs, thoughts images and systems of processing coding and retrieving information.

Cognitive change may basically consist of acquiring new information that guides behavior. A student may be instructed in strategies to improve study habits, or a couple in therapy may require substantial sexual education.

Masters and Johnson report that a major fallacy in our culture is assuming that a man naturally knows what is pleasing to his partner. In other situations the cognitive changes may involve altering a person's misconceptions or faulty assumptions

On *the* other hand, many cognitive approaches are basically our behavior modification procedures mediated by language. So, cognitive changes may result in general behavior changes, but often they do not. In some cases the client simply does not have the desired behavior in his repertoire. Convincing a client to be more assertive may be inadequate. He may not know what to do and could go to the other extreme and act too aggressive. It is better to provide assertive training. In some cases cognitive changes are inadequate to overcome strong behaviors. For example, it is common for a person with a



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strong fear to understand the nature and cause of the fear, consider the fear undesirable and irrational, and know how a non-fearful person would act in these situations; but this seldom helps reduce the fear. Rather the client needs some behavior treatment such as desensitization. And in other cases, as with some small children, retarded individuals, and severely mentally ill, cognitive approaches are impractical or inefficient. Often following a behavior change program the person's cognitive attitudes, thoughts, self concept alter, even though no attempt was directly made to change them.

**ATTRIBUTION**

An Important contribution to behavior modification from social psychology is the concept of attribution, the perception and explanation of causes and event. People perceive various factors affecting their lives; and this perceived causality (attribution) may affect their behavior. Essentially everyone, in varying degrees, misperceives himself and his environment in complex ways. Ie a person who has trouble getting along with his neighbors may attribute this to religious or racial differences, when in fact it may be because of inadequacies in his general interpersonal behavior. An important part of many counseling programs is to identify and perhaps "correct" the client's attributions. One implication of attribution research relates to the importance of emphasizing self-control approaches to behavior modification.

**COGNITIVE RESTRUCTURING**

Cognitive restructuring is basically cognitive therapy facilitated by behavioral strategies It helps the clients modify their internal sentences, what they say to themselves, "self talk" First, the client learns how his internal sentences have been causing his emotional problems. The client imagines problematic situations (perhaps in hierarchical order), learns to catch undesired self statements (negative self talk) that he makes in these situations, and then practices desirable self-statements in place of undesirable ones.

**COVERANT CONTROL**

It is often useful to consider thoughts as covert responses that can be altered by operant conditioning. The term coverant is a contraction of "covert operant". Covert control is an approach to operantly condition thoughts. In its simplest form it is a behavior modification technique, which consists of first identifying thoughts, or self-statements we wish to increase in the client in different situations The client is taught to emit these coverants when in the appropriate situation and reinforce himself for doing this.

The coverants should be short believable statements. In a study a 49-year-old depressed female whose description of herself was all negative was given 6 positive statements about herself. She put these on a card in her cigarette case She read one or two statements before smoking and gradually added new statements to the list This led to a general increase in positive thoughts and decrease in depression. This can also be used to reduce unwanted behavior Identify the stimulus for the behavior. In the presence of this stimulus, the client would emit a coverant against the undesired behavior, followed by a coverant for some desired behavior, and followed by reinforcement. For example to reduce smoking, a client in the presence of cigarettes may say to himself "smoking causes cancer", followed by "my health will be better if I don't smoke", followed by drinking some juice.

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A variation of reinforcement, which involves the client imagining a pleasing scene such as skiing down a mountain, as the reinforcement. As study of clients who feared snakes involved having the subjects imagine snake scenes, then relax, then imagine their reinforcing scent.

The relaxation and imagining the pleasant scene may counter condition some of the anxiety associated with snakes

**RATIONAL EMOTIVE THERAPY**

A cognitive therapy whose major approach is modifying the client's thinking and related assumptions and attitudes. Many psychological problems and much emotional suffering are seen as due to irrational ways of perceiving the environment irrational thinking, and related self-statements. Part of therapy consist of identifying and correcting irrational beliefs -such as the belief that it is necessary to be loved or approved of by everyone of the belief that one should be thoroughly competent in all that he does to deemed worthwhile Desirable changes have been effected with hyperactive and impulsive children, in people wishing help with creativity, worry, stress, snake and test related anxiety first the model (therapist) performs the task while talking out loud to himself, modeling self statements. Then the client performs the task with instructions from the model; next the client performs while instructing himself out loud Then the client performs while whispering. Finally the client performs while giving himself instruction covertly the verbalizations and related images that are self-reinforcing statements or coping statements to deal with frustration, uncertainty, or anxiety. i.e. go slowly, relax, stop, think before you answer, defer judgements or use different analogies. The result was that clients showed an increase in "healthy" talk and showed improvement in cognitive and attention tasks.

**RESPONDENT VERBAL CONDITIONING**

While operant conditioning may be used to increase or decrease the probability of certain thoughts, words or verbalizations, respondent conditioning may be used to change their effect, such as the emotional reactions elicited by specific words In a study which consisted of counterconditioning the negative of phobic related words, college students with snake phobias were instructed to associate the word "beautiful" with the word snake and thus create an image combining the two words. (e.g. imagining a beautiful snake). They reported that this procedure resulted in the word "snake" being evaluated less negatively, resulting in less fear of snakes

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Slide 1



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Slide 2

Behavioral Analysis  
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- Introduction
- Purpose
- Outline of Definitions to Remember

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Slide 3

Introduction

- All behavior can be learned and unlearned?
- Requirements of a program implementation
  - Observe
  - Measure
  - Record
- 4-Step Process
  - Assess: specify behavior in measurable terms
  - Establish baseline
  - Implement program for change
  - Evaluate the outcome

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Slide 4

Principles to Remember

- Maladaptive (challenging) behavior prevents adequate functioning
- Draws from several principles of human behavior: (learning and motivation)
- Experimentally based: continually evolving and improving
- Many behaviors maintained by anxiety
- Ahistorical: what do we do here and now?

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Slide 5

Definitions

- ABC's of B-Mod (examples)
- Symptom substitution
- Amoral
- Pavlovian conditioning
  - Unconditioned stimulus
  - Unconditioned response
  - Conditioned stimulus
  - Conditioned response

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Slide 6



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Slide 7

More Definitions

- Extinction
- Flooding
- Desensitization
- Modeling
- Contact desensitization
- Aversive counterconditioning
- Respondent verbal conditioning

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Slide 8

MIND GAMES

THE LAST WORD

DE CONCEPTS, TALKING AND THE MIND...  
HOW TO...  
HOW TO...  
HOW TO...

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Slide 9

UNARMED CHILDREN WILL BE GIVEN AN ESPRESSO AND A FREE PUPPY

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Slide 10

Still more definitions

- Contingency
- Fading
- Operant conditioning
  - REINFORCEMENT
  - Shaping
  - Time out
  - Token economy
  - Premack theory

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Slide 11

Types of Reinforcement

- Primary-food
- Secondary-praise, attention, affection
- General- staff, money, collectables
- Intrinsic- motivation for accomplishing tasks is rewarding by itself (no outside +R needed)

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Slide 12



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