

# Lecture 12

**Book: Behavior Modification – What it is and How to do it**

## **Chapter 12: Eliminating Inappropriate Behavior through Punishment**

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### **Summary**

The principle of punishment: A punisher is a stimulus whose presentation immediately after a behavior causes that behavior to decrease in frequency. Punishers are sometimes referred to as aversive stimuli or aversives. Associated with the concept of a punisher is the principle of punishment: If, in a given situation, someone does something that is immediately followed by a punisher, then that person is less likely to do the same thing again when she or he next encounters a similar situation. For behavior modifiers, punishment is a technical term referring to the application of an immediate consequence following an individual's specific behavior in a specific situation that has the effect of decreasing the likelihood of future instances of that individual engaging in that specific behavior in that specific situation. Like positive reinforcement, punishment affects our learning throughout life. For e.g. the immediate consequences of touching a hot stove teach us not to do that again. Early in life, the pain from a few falls helped to teach us better balance.

Types of punishers:

- Pain inducing punisher: It is also referred to as a physical punisher. It is a stimulus immediately following a behavior that activates pain receptors or other sense receptors that typically evoke feelings of discomfort. E.g. spankings, pinches, electric shock etc. such stimuli or events are called unconditioned punishers, which are stimuli that are punishing without prior learning.
- Reprimand: A reprimand is a strong negative verbal stimulus immediately contingent on behavior. An example would be a parent saying “No! that was bad!” immediately after a child emits an undesirable behavior.
- Timeout: A timeout is a period of time immediately following a particular behavior during which an individual loses the opportunity to earn reinforcers. There are 2 types of timeout: exclusionary and nonexclusionary. An exclusionary timeout consists of

removing an individual briefly from a reinforcing situation immediately following a behavior. Often a special room called a timeout room is used for this purpose. A non exclusionary timeout consists of introducing into the situation, immediately following a behavior, a stimulus associated with less reinforcement. An e.g. according to Foxx and Shapiro (1978), children in a classroom wore a ribbon that was removed for a short time when a child was disruptive.

- Response cost: It involves the removal of a specified amount of a reinforcer immediately following a behavior. Response cost is sometimes used in behavior modification programs in which learners earn tokens as reinforcers. E.g. of response cost in everyday life are library fines, traffic tickets etc.

The direct effect of punishment is the decreased frequency of a response because of its immediate punishing consequences. The indirect acting effect of punishment is the weakening of a response that is followed by a punisher even though the punisher is delayed.

Factors influencing the effectiveness of punishment:

1. The conditions for a desirable alternative response: To decrease an undesirable response, it is generally considered to be maximally effective to increase some desirable alternative response that will compete with the undesirable behavior to be eliminated. We should attempt to identify the discriminatory stimulus that control the desirable behavior and present these to increase the likelihood that the desirable behavior will occur. To maintain the desirable behavior, we should also have effective positive reinforcers that can be presented on an effective schedule.
2. Cause of the undesirable behavior: identifying the antecedents and consequences of a behavior is referred to as a functional assessment. It is important to emphasize that punishment may often not be necessary. Maximizing the causes of the undesirable behavior while maximizing the conditions for a desirable alternative behavior may cause the desirable behavior to compete so strongly with the undesirable behavior that it is greatly reduced or completely suppressed without the use of punishment.
3. The punishing stimulus: If punishment is to be used, it is important to be sure that the punisher is effective. In general the more intense or strong the punishing stimulus, the more effective it will be in decreasing the undesirable behavior. however, the intensity of the punisher that is needed to be effective depends on the success in minimizing the causes of the undesirable behavior while maximizing the conditions for a desirable alternative behavior. even a mild punisher such as a reprimand can be effective if the reinforcer for the undesirable behavior is withheld following instances of the behavior and if a desirable alternative behavior is reinforced with a strong reinforcer.
4. Antecedents for punishment: An SDp is a stimulus in the presence of which a response will be punished. When we were children many of us learned that asking our parents for something when they were in a bad mood often led to a reprimand. The

parental behaviors characteristic of “being in a bad mood” continued an SDp. Research on the effects of SDp has shown that if in the presence of an SDp a punisher is consistently applied following a response, then that response is less likely to occur when the SDp is encountered.

5. Delivery of the punisher:

- Guideline 1: The punisher should be presented immediately following the undesirable behavior.
- Guideline 2: the punisher should be presented following every instance of the undesirable behavior.
- Guideline 3: the delivery of the punisher should not be paired with positive reinforcement.
- Guideline 4: the person administering the punisher should remain calm when doing so.

Therapeutic punishment: Behavioral journals describe numerous reports of the deliberate use of punishment as a treatment strategy sometimes referred to as therapeutic punishment, with individuals who have severe behavioral challenges. For e.g. there was a 16 year old girl with a case of severe bruxism – the constant grinding of teeth. Her teeth were severely worn out and were in danger of being lost. Behavior analysts were consulted about the problem and they conducted a mild pain inducing punishment procedure. Each time she audibly ground her teeth, a staff member touched her face with an ice cube for a few seconds. Her teeth grinding decreased considerably with a few days and after 2 months her bruxism had almost completely ceased. There are also many reports of therapeutic punishment with children involving response cost, time out and reprimand punishers.

Potential harmful side effects of punishment:

1. Aggressive behavior: Punishment tends to elicit aggressive behavior.
2. Emotional behavior: Punishment can produce undesirable emotional side effects, such as crying and general fearfulness, it can interfere greatly with desirable behavior.
3. Escape and avoidance behavior: Punishment may cause the situation and people associated with the aversive stimulus to become conditioned punishers. Thus instead of helping them to learn, punishment may drive him or her away from everything having to do with the learning situation.
4. No new behavior: punishment does not establish any new behavior; it only suppresses old behavior.
5. Modeling of punishment: children often model or imitate adults. If adults apply punishment to children, they are apt to do the same to others.
6. Overuse of punishment: As punishment often results in rapid suppression of undesirable behavior, it can tempt the user to rely on it and neglect the use of positive reinforcement for desirable behavior.

### Guidelines for the effective application of punishment:

- ❖ Select a response: Punishment is most effective with a specific behavior rather than a general category of behavior.
- ❖ Maximize the conditions for a desirable (non punished) alternative response: select a desirable alternative behavior that competes with the behavior to be punished so that the alternative behavior can be reinforced. And provide strong prompts to increase the likelihood that the desirable alternative behavior will occur.
- ❖ Maximize the causes of the response to be punished: try to identify and eliminate as many as possible of the discriminatory stimuli for the undesirable behavior early in the training program. And try to eliminate any possible reinforcement for the undesirable behavior.
- ❖ Select an effective punisher.
- ❖ Present clear SDps: Tell the learner about the plan before starting and give a clear “warning” or “reminder”.
- ❖ Deliver the punisher: it should be presented immediately following the response to be decreased and after every instance of the response to be decreased. It should be administered in a calm matter of fact manner.
- ❖ Take data: in all programs involving punishment, careful data should be taken on the effects of the program.