

Differential Reinforcement and How It Changes Behavior

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BEHAVIOR

Behavior is a lot like an iceberg...



Functions of Behavior

Obtain/Get

Attention

Item/
Activity

Sensory

Escape/Avoid

Attention

Item/
Activity

Sensory





**CHANGE
AHEAD**

WHAT IS REINFORCEMENT?

- A natural process or managed procedure that strengthens a behavior.
- Affects the **FUTURE** occurrence of behavior.

WHAT IS REINFORCEMENT?



	Antecedent	Behavior	Consequence
IF	Your child is directed to complete their homework.	Your child completes the task as directed.	You praise your child and let them go out to play.
THEN	Your child is presented with a similar homework task.	?	

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TYPES OF REINFORCERS

Edibles	Skittles, chips, Goldfish crackers, M&Ms, juice
Activity	access to an iPad or laptop, listening to music, riding bike, swinging, trip to a favorite place
Tangibles	favorite toy, stickers, play-doh, computer, phone
Social	verbal praises, high fives, thumbs-up, hugs

Reinforcement vs. Bribery

Reinforcement

- something occurs following a behavior, to increase future occurrences of the behavior
- systematic and thoughtful
- proactive (if you keep your hands to yourself and use kind words, then we can go get ice cream)
- increases a specific behavior
- benefits the learner

Bribery

- something is promised to stop an undesired behavior
- reactive (stop fighting and we will go get ice cream)
- the challenging behavior dictates the reward
- benefits the person offering the bribe

DIFFERENTIAL REINFORCEMENT

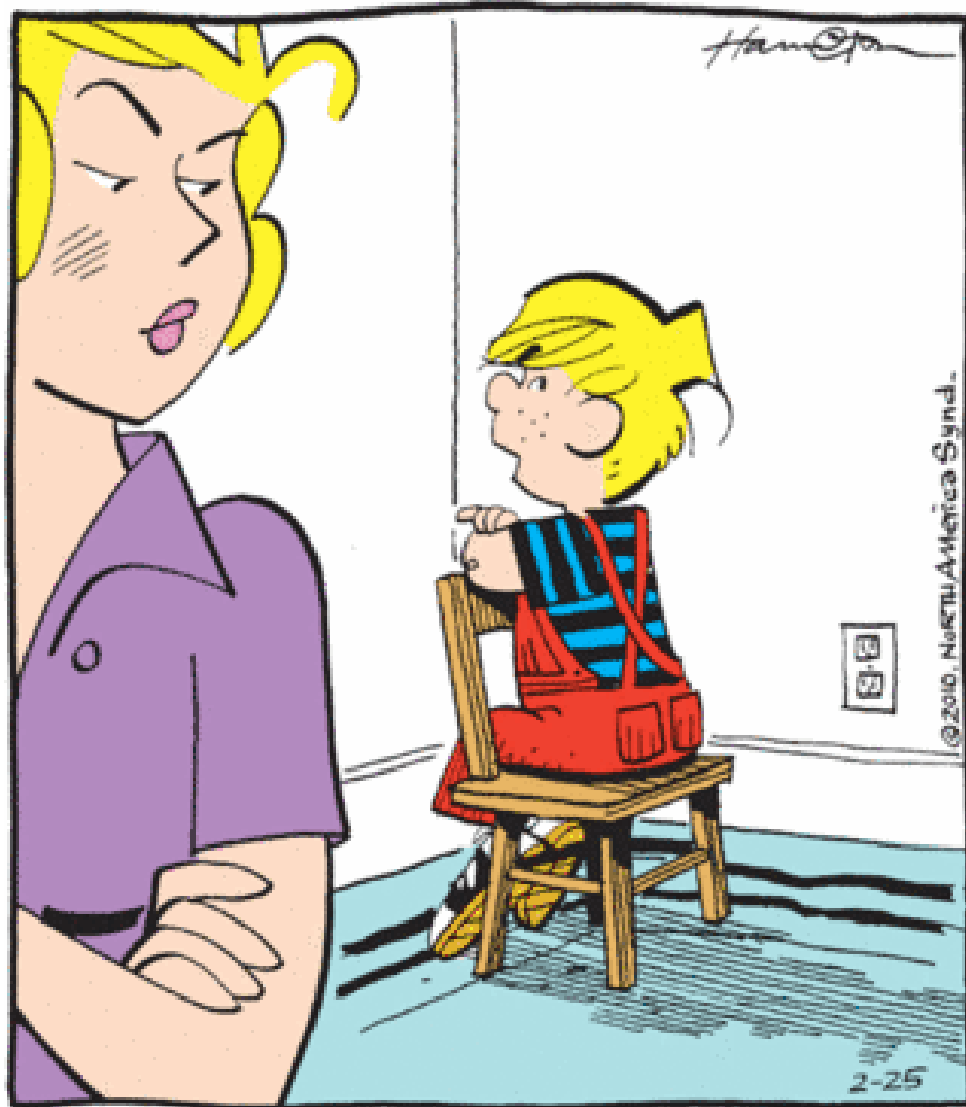
- reinforcing desired behavior while simultaneously withholding reinforcement for undesired behavior

WHY USE DIFFERENTIAL REINFORCEMENT?

**Effective practice to
reduce challenging or
interfering behaviors**



**Effective in
producing
prosocial or
desired behavior**



"WOULDN'T IT BE EASIER JUST TO TELL ME
WHAT I CAN DO?"

TYPES OF DIFFERENTIAL REINFORCEMENT

- Differential Reinforcement of Alternative Behavior (DRA)
- Differential Reinforcement of Incompatible Behavior (DRI)
- Differential Reinforcement of Other Behavior (DRO)
- Differential Reinforcement of Lower Rates of Behavior (DRL)

DRA

- Reinforcement is provided for a behavior that is a more appropriate or functional alternative to the behavior targeted for reduction.
- To be effective, the alternative behavior should
 - match the function of the problem behavior and
 - be equally or less effortful

BROOM HILDA RUSSELL MYERS



DRI

- Reinforcement is provided for one behavior that cannot occur simultaneously with the behavior targeted for reduction.
- The problem behavior and incompatible behavior cannot occur at the same time.
- The incompatible replacement behavior must be in the child's repertoire.

GUIDELINES FOR USING DRI/DRA

1. Select Incompatible or Alternative Behavior to Strengthen
2. Select Powerful Reinforcers that can be delivered consistently.
3. Reinforce Incompatible or Alternative Behavior Immediately
4. Withhold Reinforcement for the Challenging Behavior

DRO

- Reinforcement is provided for any behavior **OTHER THAN** the behavior targeted for reduction.
- Only “zero displays” of the inappropriate behavior during the time period are reinforced.
- DRO is “omission training”... a child is reinforced for the absence (rather than the presence) of behavior.

STEPS FOR APPLYING DRO

1

An interval of time is figured from observation data

2

Reinforcement is given if the undesirable behavior was NOT emitted during the designated time interval

3

(Usually) Any display of the inappropriate behavior results in a re-setting of the clock (start another time interval)

GUIDELINES FOR USING DRO

1. Select Reinforcers that are Powerful that can be delivered with consistency
2. Set Initial DRO Intervals that Assure Frequent Reinforcement (< or = mean baseline)
3. Do not Inadvertently Reinforce other Undesirable Behaviors
4. Gradually increase DRO intervals

DRL

- Reinforcement is provided when the number of responses in a specified time period is less than or equal to a prescribed limit.

GUIDELINES FOR USING DRL

1. Use baseline data to guide the selection of the initial response.
2. Gradually thin the DRL schedule to achieve the desired final rate of responding.

EXTINCTION PROCEDURE

Reinforcement of a previously reinforced behavior is discontinued.
The maintaining reinforcer is no longer provided.



EXTINCTION BURST



***Screaming used to work.
I'll just have to scream louder
until they pay attention to me.***

Type	Definition	Example
DRA – Differential Reinforcement of Alternative Behavior	Reinforcement is provided for a behavior that is a more appropriate or functional alternative to the behavior targeted for reduction.	Student will get reinforcement for asking for help or asking for a break which is a more functional alternative to swiping the desk clear of materials.
DRI – Differential Reinforcement of Incompatible Behavior	Reinforcement is provided for one behavior that cannot occur simultaneously with the behavior targeted for reduction.	Student will get reinforcement for “hands to self” which is incompatible to hitting.
DRO – Differential Reinforcement of Other Behavior	Reinforcement is provided for any behavior OTHER THAN the behavior targeted for reduction.	Student will earn reinforcement (e.g., a token) at the end of a 5-minute interval in which spitting has not occurred.
DRL – Differential Reinforcement of Lower Rates of Behavior	Reinforcement is provided when the number of responses in a specified time period is less than or equal to a prescribed limit.	Student will earn reinforcement when he asks for help 5 times or fewer within a 30-minute time period (down from 10 times).

Scenario I

When Sarah's parents ask her to do various chores at home, she yells, "No", "I don't want to", refuses to complete the job, and runs off to her room.

Plan your responses using
Differential Reinforcement

What do you want her to do instead?

How will you reinforce the desired behavior?

How will you respond to the challenging behavior?

Scenario II



Scenario III

Jose takes more than an hour to get ready for school and has incurred a lot of tardies. Despite lots of verbal reminders from his parents, the situation is not improving.

Plan your responses using
Differential Reinforcement

What do you want him to do instead?

How will you reinforce the desired behavior?

How will you respond to the challenging behavior?