

Functions of Behavior

by Capella Partnered with CARD



WHAT'S COVERED

This lesson will explore the functions of behavior by defining and discussing the following:

1. Positive Reinforcement and Negative Reinforcement
2. Social Positive Reinforcement
 - a. Attention
 - b. Tangible
3. Social Negative Reinforcement
4. Automatic Positive Reinforcement
5. Automatic Negative Reinforcement

1. Positive Reinforcement and Negative Reinforcement

In behavior analysis, we use the term reinforcement to mean something that increases a behavior in the future. Reinforcement can include getting good stuff (positive reinforcement) or getting rid of bad stuff (negative reinforcement).

The technical term for "getting good stuff" is **positive reinforcement**, which is something being added to the environment that results in an increase in the future frequency of that behavior.

Think of the term "positive" as meaning adding something to environment, such as

- access to tangible items or activities
- attention from others
- access to preferred sensory stimulation

The technical term for "escaping bad stuff" is **negative reinforcement**, which is something being removed from the environment resulting in an increase in the future frequency of that behavior.

In this sense, "negative" refers to taking something away from the environment:

- escape non-preferred task or situation
- removal of aversive sensory stimulation

Do not confuse the term negative reinforcement with a decrease in behavior. Any type of reinforcement refers to an increase in behavior. In other words, positive and negative reinforcement increase or maintain behavior.

Video Transcription

So we talked about certain outcomes or consequences that either would increase that behavior in the future or decrease that behavior in the future. So any time that you have a consequence that results in that behavior increasing in the future, you're dealing with reinforcement.

Now, there's two types of reinforcement and two types of punishment. And a lot of it has to do with whether we are receiving something as a result of our behavior or something is being taken away. So you see the difference between a consequence can either result in something being given to you or in something being taken away. And so this is called positive and negative.

Now, I can have positive reinforcement. But I can also have negative reinforcement. And I can have positive punishment. But I can also have negative punishment. So let me give you an example of each one.

If I have been given something that I enjoy as a result of my behavior-- so if somebody gives me a pat on the back and a high five, and that's something that I like-- then I am being given something that is going to increase my behavior in the future. That is positive reinforcement. If I encounter something negative that's taken away from me-- so for instance, the loud music example. I ask for somebody to turn music down. They turn the music down. And that's a good outcome for me, because I didn't like that music-- that is actually called negative reinforcement.

My behavior of asking for the music to be turned down is going to increase in the future, because that negative thing that I didn't like, that really, really loud music was taken away. So that is an example of what we call negative reinforcement.

Let's explore some examples of positive and negative reinforcement.

Positive Reinforcement	Negative Reinforcement
Shira cries and her mother gives her candy. Shira is more likely to cry to gain access to candy in the future.	Paula's mother gives her candy so she stops crying. In the future, Paula's mother is more likely to give candy to stop the crying.
Yu finishes his math homework and his teacher tells him he did a great job. In the future, Yu is more likely to finish his math homework.	Fasil worked hard and got all of his tasks done for the week so his boss let him leave 30 minutes early on Friday. Fasil is more likely to work hard to get all tasks completed so he can leave early on Friday.
Solomon puts money into a vending machine and a drink is delivered. In the future, Solomon is more likely to put money into a vending machine.	Beata coughs several times in a row and is sent home from school. In the future, Beata is more likely to cough in school.

Whether positive or negative, the reinforcer of a behavior can be delivered by another person or can result

because the behavior itself is reinforcing. When the reinforcer is delivered by another person, we say that reinforcement is socially mediated. When the behavior itself is reinforcing, we say that reinforcement is automatic. The table below provides examples of each type of reinforcement.

Socially Mediated	Automatic
A teacher gives a student candy.	A student gets candy out of their lunchbox.
A grandparent stops asking a grandchild to clean up.	A person sings in the shower.
Peers laugh at a joke.	A person scratches an itch.
A barista hands a customer coffee.	A runner stretches.

There are four variables that most often control challenging behaviors. We want you to be aware of these four common causes or functions that lead to the continuation of challenging behaviors.

The combination of positive and negative reinforcement with socially mediated versus automatic access to a reinforcer allows for four functions of behavior:

1. Social Positive Reinforcement: Person gets good stuff from someone.
2. Social Negative Reinforcement: Someone lets a person escape bad stuff.
3. Automatic Positive Reinforcement: Behavior itself feels good.
4. Automatic Negative Reinforcement: Behavior itself lets a person escape something that feels bad.



TERMS TO KNOW

Positive Reinforcement

Something being added to the environment that results in an increase in the future frequency of that behavior

Negative Reinforcement

Something being removed from the environment that results in a decrease in the future frequency of that behavior

2. Social Positive Reinforcement

Social positive reinforcement can involve receiving attention from others, gaining access to tangible items or activities, or having access to preferred sensory stimulation.

2a. Attention

Social positive reinforcement could involve someone giving attention for a problem behavior. It could be

- vocal attention: reprimands, statements of concern, lecture or discussion
- facial expressions: eye contact, glaring, looks of concern or surprise
- touching: pats, rubs, spansks

Here are examples of a social positive reinforcement contingency (specifically, attention as the reinforcer):

➡ EXAMPLE

A

B

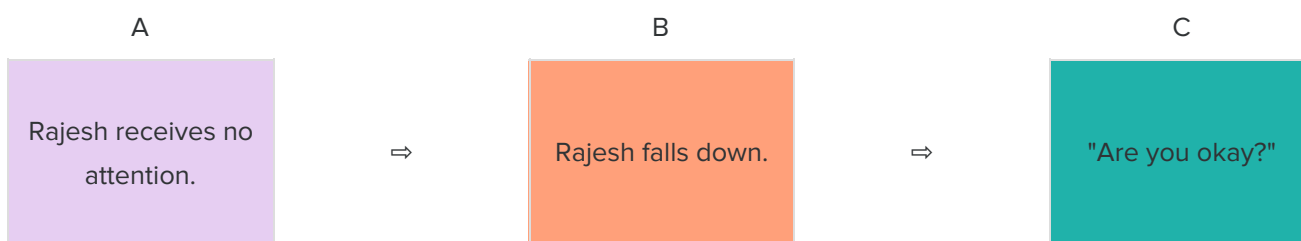
C



- **Antecedent:** Before the behavior occurs, no one is paying any attention to Julie. Maybe the teacher or behavior technician is writing notes or preparing materials for the therapy session. Or, perhaps the caregiver is on the phone and cannot pay attention to Julie.
- **Behavior:** Then, Julie hits the behavior technician or teacher or caregiver.
- **Consequence:** As a result of the hitting, the behavior technician, teacher, or caregiver starts paying attention to Julie. This attention can come in many forms, outlined below:

Attention	Impact on Behavior
“Don’t do that.”	The adult may chastise Julie, thinking that reprimanding her will make her feel bad and not hit again. But, this may not be the case. To Julie, it may not matter whether the adult says something nice or something chastising. It may just matter that she now has the adult’s attention when she did not before. So, if over time, the BCBA observes that the behavior technician or caregiver chastises Julie after she hits, and that the behavior is not improving, it is likely that the attention Julie gets when the behavior technician or caregiver says “Don’t do that” is causing the hitting to continue to occur.
“No hitting.”	Again, the behavior technician or caregiver may think that being firm with Julie will reduce her hitting. But, if over time, the BCBA sees that people are saying “No hitting” to Julie but Julie still hits, it is likely that the attention Julie gets by the behavior technician or caregiver saying “No hitting” is reinforcing the hitting, or causing it to continue.
“It’s okay.”	Sometimes a behavior technician, teacher, or caregiver may try to soothe a patient when they engage in a challenging behavior, such as hitting. It may be possible that giving this soothing attention is reinforcing the hitting. Again, a BCBA must determine if this is the reason for or function of Julie’s hitting before deciding on an intervention.
Hold her hand or look at her disapprovingly	Looks or physical touch are also forms of attention and may reinforce challenging behavior such as hitting.

⇒ EXAMPLE



- **Antecedent:** Before the behavior occurs, no one is paying any attention to Rajesh.

- **Behavior:** Then, Rajesh stumbles and falls to the floor.
- **Consequence:** As a result of the falling to the floor, the behavior technician, teacher, caregiver, or peers start attending to Rajesh in some form, as outlined below:

Attention	Impact on Behavior
“Are you okay?”	Another person may check to see that Rajesh is okay in an attempt to soothe. If the BCBA observes that Rajesh continues to fall down when deprived of attention and receives attention after falling, it is likely that the behavior is maintained by attention.
Peers laugh.	While adults can most often modify the attention provided to patients engaged in challenging behavior, peers may not follow the same rules. It’s possible that when Rajesh falls, his peers find this amusing and it becomes a game. Rajesh may fall to the ground to get a laugh from peers. If, over time, the BCBA sees that peers are laughing when Rajesh falls, and Rajesh continues to fall, laughing is most likely reinforcing the falling, or causing it to continue.
Lift him up.	Looks or physical touch are also forms of attention and may reinforce challenging behavior such as falling to the floor.

Video Transcription

So can someone give me an example or a situation how you would thank someone in a friendly way?
Jackson.

Thank you?

[LAUGHTER]

Clap once if you hear my voice. [INTERPOSING VOICES] Clap once if you hear my voice.

2b. Tangible

Social positive reinforcement can also involve someone giving a tangible item or activity for the problem behavior, such as

- toys
- food
- activities (getting to go outside, watching TV, spending the night at a friend’s house)

Here is an example of a tangible or social positive reinforcement contingency:

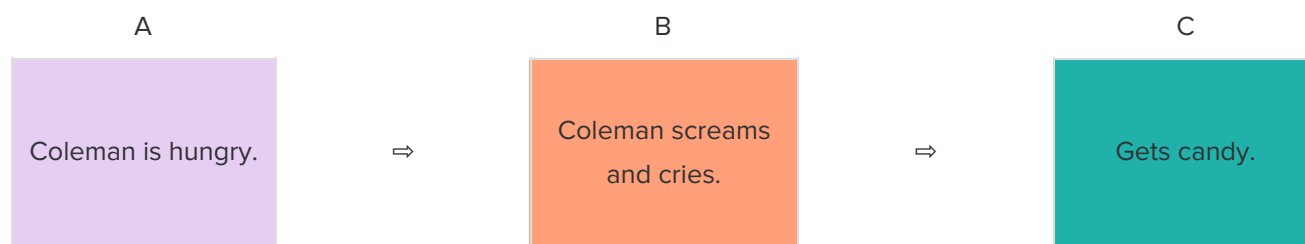
⇒ **EXAMPLE**



- **Antecedent:** Before Gyte hits, she may be told “No, it’s not play time,” a transition occurs, or it may not be apparent that Gyte wants anything at all.
- **Behavior:** Then, Gyte hits the behavior technician, teacher, caregiver, or peer.
- **Consequence:** As a result of the hitting, the behavior technician, teacher, or caregiver sends Gyte outside.

By stating, “Go outside,” the behavior technician, teacher, or caregiver may send Gyte outside to help her “calm down,” thinking that some activity and fresh air might help to soothe Gyte. If, over time, the BCBA observes that hitting is followed by being sent outside and that hitting is continuing, it is likely that Gyte is hitting to be able to go outside, or hitting is maintained by access to a preferred activity.

⇒ EXAMPLE



- **Antecedent:** Coleman hasn’t eaten in several hours.
- **Behavior:** Then, Coleman begins screaming and crying.
- **Consequence:** As a result of screaming and crying, someone provides Coleman with candy.

In this "Give him candy" scenario, there are a number of possible, seemingly logical reasons a well-meaning adult might provide candy to a screaming patient. Perhaps a child scraped their knee, cried during a visit to the doctor, or began screaming in a long check-out line at the store. While giving the candy may temporarily stop the screaming, if the BCBA observes over time that the screaming and crying continue to occur, it could be that the patient is crying and screaming because they will receive candy. Screaming and crying are likely maintained by giving access to candy.

Video Transcription

All Done. We'll watch it later, OK? We'll watch them later. We'll watch them later.

[BABY NOISE]

No, we'll watch it later.

[BABY SCREAMS]

No.

[BABY SCREAMS]

Jack, settle down. Settle down. We'll watch the computer later. It's not going anywhere.

3. Social Negative Reinforcement

Social negative reinforcement is escape. Someone lets the patient escape bad stuff or removes something that is aversive.

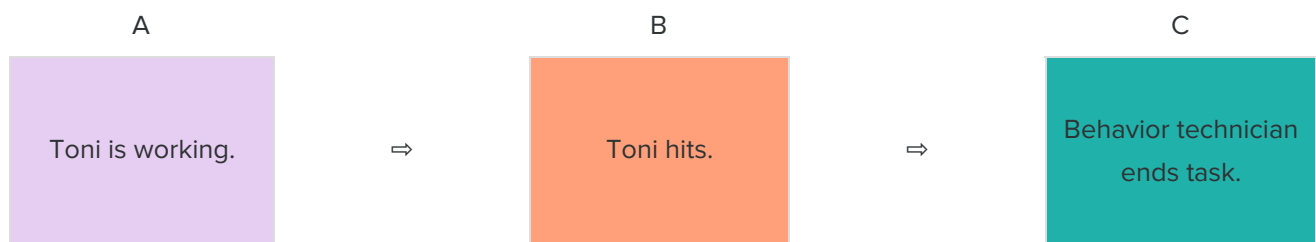
➤ **EXAMPLE** If a teenager avoids their homework night after night, you would say that homework is aversive.

Someone allowing escape from an aversive event or task contingent on problem behavior might involve

- discontinuing a demand or task
- leaving a setting (e.g., child doesn't want to be at school, so child tantrums, and teacher sends child home)

Here is an example of an escape or social negative reinforcement contingency:

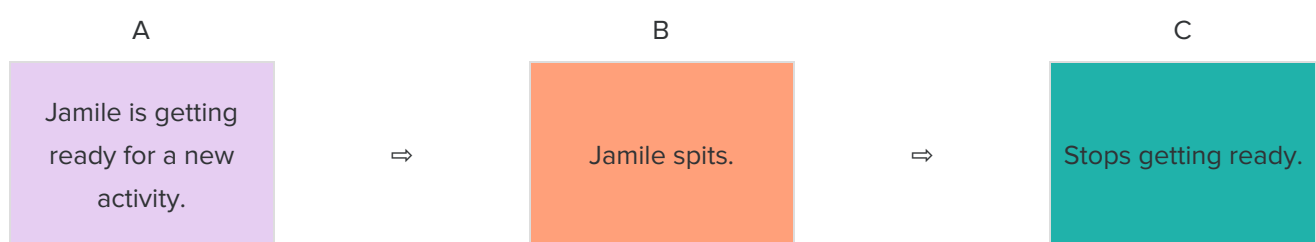
➤ **EXAMPLE**



- **Antecedent:** Before the behavior occurs, Toni is engaged in some sort of task such as sitting on the floor with a caregiver learning to put on her shoes. Or, she is sitting at a table with a behavior technician learning to count.
- **Behavior:** Then, Toni hits the behavior technician or a caregiver.
- **Consequence:** As a result of the hitting, something happens such that Toni is no longer working, at least for the moment.

Suppose the behavior technician or caregiver turns away. Toni's caregiver or behavior technician might end the task by turning away from Toni for a few seconds to indicate to Toni that they do not like what she just did. However, if the function of or reason for Toni's behavior is escape, Toni is actually being reinforced for hitting. Similarly, putting Toni in time-out would not be a good consequence for escape-oriented behavior because it allows Toni to escape and could inadvertently reinforce the problem behavior of hitting.

➤ **EXAMPLE**



- **Antecedent:** Before Jamile spits, they might be getting ready for bed, or school, or a transition to a different class.
- **Behavior:** Then, Jamile spits.
- **Consequence:** As a result of the spitting, something happens such that Jamile is no longer preparing for the next task, at least for the moment.

In this example, the behavior technician or caregiver has Jamile clean up, stopping the task to have Jamile clean up the mess made by spitting. However, if the function of or reason for Jamile's behavior is escape, Jamile is actually being reinforced for spitting. Putting Jamile in time-out would also reinforce spitting by delaying or ceasing the next activity that Jamile hopes to avoid.

Video Transcription

[INAUDIBLE] What does "hold your horses" mean? No, we need to be in our chair.

I asked you that question first.

Hey, we're finishing our questions, bud. We can get out of our chair when we have 20 serious answers. Thanks for sitting on your chair.

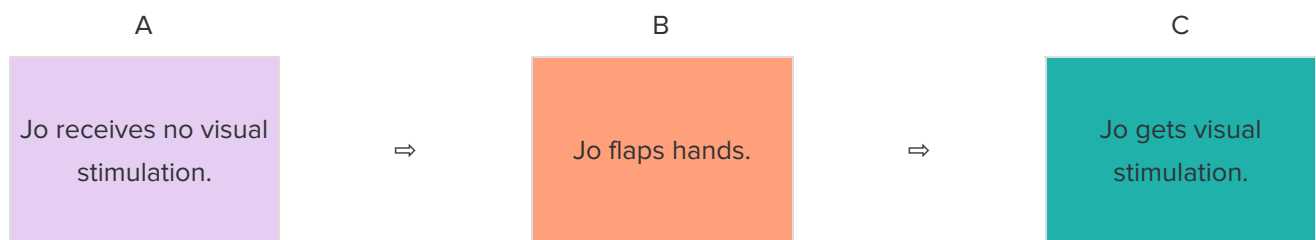
4. Automatic Positive Reinforcement

This is the third of the four main functions of behavior. With automatic positive reinforcement, the behavior itself feels good and is reinforcing. A patient might engage in stereotypy to receive sensory input, for example:

- hand flapping
- delayed echolalia
- twirling

Here is an example of an automatic positive reinforcement contingency:

🔗 EXAMPLE

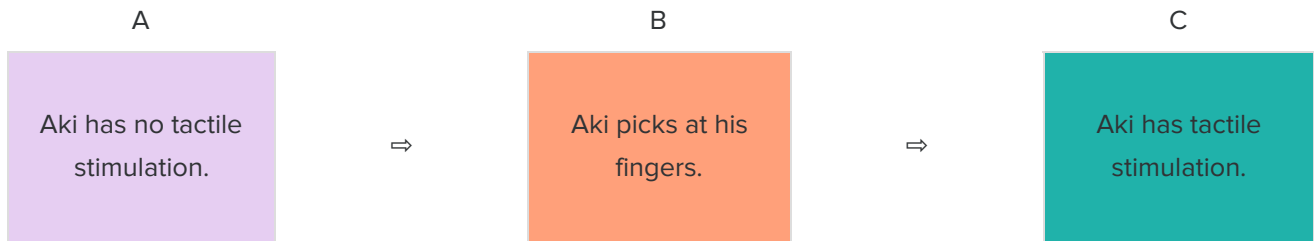


- **Antecedent:** Before the behavior occurs, Jo may be sitting on the couch with nothing visually stimulating around him.
- **Behavior:** Then, Jo begins to flap his hands up and down in front of his eyes.
- **Consequence:** The flapping hand in front of his eyes provides visual stimulation.

In this example, if hand flapping occurs regularly, it may be that the visual stimulation that Jo receives as a

result of the hand flapping is reinforcing this behavior.

➤ EXAMPLE



- **Antecedent:** Aki may be sitting at his desk with nothing to do.
- **Behavior:** Then, Aki begins to pick the skin around his fingers.
- **Consequence:** The picking at his fingers provides tactile stimulation.

If skin picking occurs regularly, it may be that the tactile stimulation that Aki receives as a result of the skin picking is reinforcing this behavior and therefore causing it to continue.

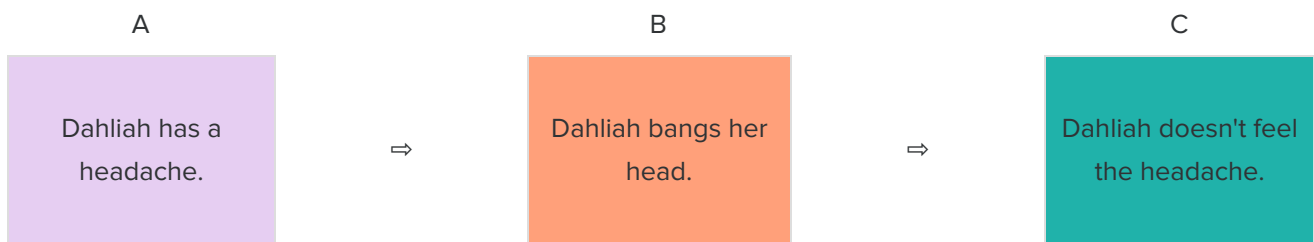
5. Automatic Negative Reinforcement

With automatic negative reinforcement, terminating or avoiding the behavior itself feels good and is reinforcing.

➤ EXAMPLE Rubbing a bruise can help to alleviate pain or scratching a mosquito bite can help ease the itching sensation.

Let's take a look at a few other examples.

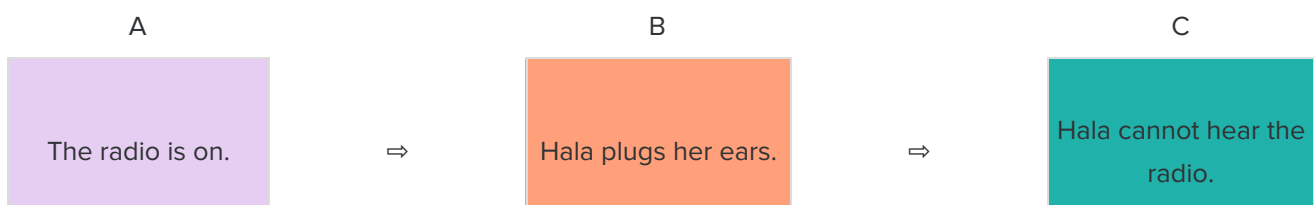
➤ EXAMPLE



- **Antecedent:** Dahliah is experiencing an aversive stimulus in the form of a headache.
- **Behavior:** Then, Dahliah begins to bang her head against her sofa.
- **Consequence:** Dahliah's headbanging provides relief from the pain of the headache in some way.

If headbanging occurs regularly, it may be that the relief from an internal aversive event is reinforcing this behavior and therefore causing it to continue.

➤ EXAMPLE



- **Antecedent:** It may be that the radio is too loud or what is playing is otherwise aversive.
- **Behavior:** Then, Hala puts her fingers in her ears.
- **Consequence:** Hala's plugging her ears reduces the aversiveness of the radio.

If covering ears occurs regularly, it may be that the relief from the radio is reinforcing this behavior and therefore causing it to continue.



BIG IDEA

Typically, the four functions just discussed will be seen on the patient's behavior intervention plan (BIP) and will often be discussed using these terms:

1. Attention
2. Access to Tangibles
3. Escape or Avoidance
4. Automatic Reinforcement

Once the function of the problem behavior has been determined, a function-based intervention for that problem behavior will be designed.



TRY IT

Now is a great time for you to practice gathering ABC data! Identify an inappropriate behavior in your natural environment that you are able to observe, or look up a YouTube video of a person engaging in inappropriate behavior. Observe until you are able to view 3 or more instances of this behavior. Write down the antecedents (what happened before behavior), the behavior (practice defining it), and the consequence to the behavior.



SUMMARY

In this lesson, you learned that in behavior analysis, the term reinforcement is used to mean something that increases a behavior in the future, and that there is both **positive reinforcement** and **negative reinforcement**, which are the technical terms for "getting good stuff" and "escaping bad stuff," respectively. Remember that positive and negative reinforcement increase or maintain behavior. You learned that reinforcement can be socially mediated, meaning the reinforcer for a behavior can be delivered by another person, or automatic, meaning the behavior itself is reinforcing. You explored many examples of the four common causes or functions that lead to the continuation of challenging behaviors: **Attention/ social positive reinforcement** and **tangible/social positive reinforcement**, when a person gets good stuff from someone; **escape/social negative reinforcement**, when someone lets a person escape bad stuff; **automatic positive reinforcement**, referring to when the behavior itself feels good; and lastly, **automatic negative reinforcement**, when the behavior itself lets a person escape something that feels bad.



TERMS TO KNOW

Negative Reinforcement

Something being removed from the environment that results in a decrease in the future frequency of that behavior

Positive Reinforcement

Something being added to the environment that results in an increase in the future frequency of that behavior