

The Three-Term Contingency

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WHAT'S COVERED

This lesson will explore the three-term contingency by defining and discussing the following:

1. The Three-Term Contingency
2. Three-Term Contingency Examples
3. Using ABA as an Intervention for ASD

1. The Three-Term Contingency

Building on the earlier work of Edward Thorndike and John Watson, B.F. Skinner had a remarkably simple and yet powerful idea: If we want to change a person's behavior, then we should change that person's environment.

Imagine if we could change people's genetics and brain structure to enable them to function better in life. But, for now, if we want to help people behave in a way that will improve their quality of life, all we can do is change their environment.

In the behavioral way of viewing the world, a person's environment is divided into things that happen before behavior, called antecedents, and things that happen after behavior, called consequences. Behavioral intervention consists of modifying antecedents and consequences in people's environments in order to maximize their learning and motivation.

If you have previously taken courses in Learning or Behavioral Psychology, this should be familiar. The three-term contingency is the unit of analysis in behavior analysis. That is, when we are trying to increase or decrease any behavior, we must always look at these three pieces.

- Antecedents: What are the triggers or events surrounding the behavior? These occur right before the behavior.
- Behavior: What does the behavior look like? This is anything the person says or does.
- Consequence: What outcome is the behavior resulting in? This is what occurs right after the behavior.



BIG IDEA

The three-term contingency helps us see the behavior's relationship to the environment.

Video Transcription

So let's talk about the three-term contingency for a moment. In operant conditioning, we come to understand behavior by looking at what comes before it in the environment and what happens immediately following that behavior. So we look at the behavior and its interaction with things going on in the environment, and that gives us really important information regarding why that behavior is occurring.

So we break it down into three steps or three parts, basically. So we have the A, which is the antecedent, and that really refers to anything that is happening immediately before the behavior occurs. Then we have the behavior itself, which is the behavior that we're interested in. And then we have the consequence. And the consequence represents anything that happens immediately following that behavior.

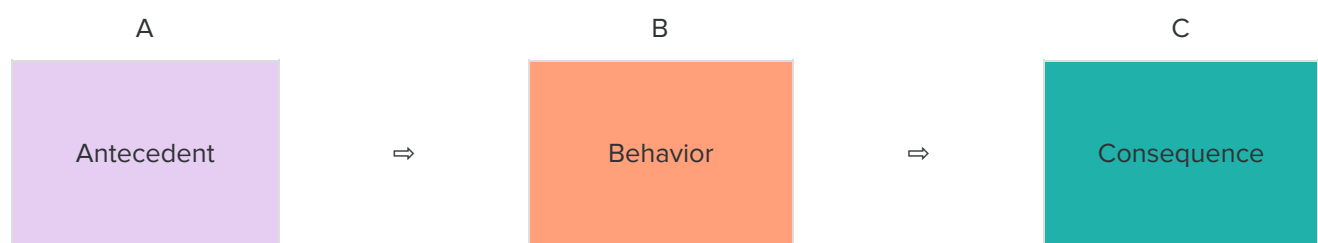
So we can come to understand and also better predict what behavior may do depending on the type of consequence that it encounters. So if I engage in a behavior and something good happens, so I receive a positive consequence, so something that I find enjoyable or pleasant, then chances are that behavior's going to increase in the future. So if something good happens, that behavior is likely going to increase in the future.

And the opposite is also true. So if I engage in a behavior and something bad happens, so there's some type of negative consequence that I don't enjoy or that's maybe even a little punishing for me, chances are what's going to happen to that behavior is it's going to decrease over time.

We know that ABA can change behavior. Using the three-term contingency facilitates behavior change. By manipulating antecedents and consequences to a behavior, we can increase desirable behaviors and decrease undesirable behaviors.

2. Three-Term Contingency Examples

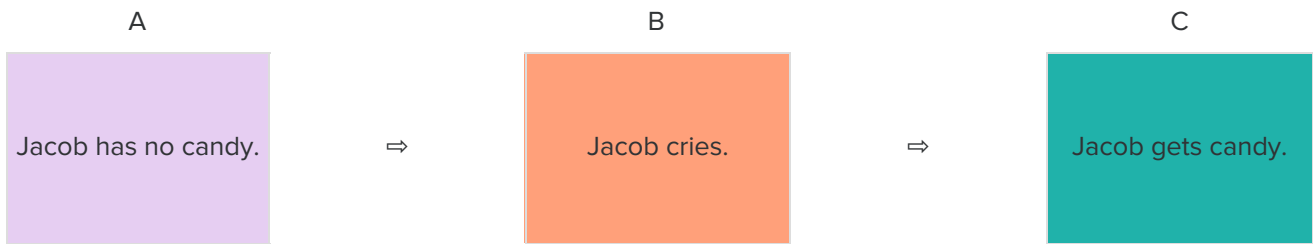
The A-B-C Model: The Three-Term Contingency



Here are some examples of the three-term contingency in action. As you explore the following examples, keep this in mind:

- A = the antecedent, or what happens immediately before the behavior
- B = the behavior, or anything the person says or does
- C = the consequence, or what happens immediately after the behavior

⇒ EXAMPLE



- **Antecedent:** In this example, the antecedent is that Jacob has no candy. Perhaps Jacob is in the supermarket in the candy aisle.
- **Behavior:** In this example, the behavior we are examining is Jacob crying. So now, we imagine that Jacob is standing in the candy aisle crying.
- **Consequence:** In this example, the consequence is Jacob gets candy. We can imagine that perhaps a babysitter or well-meaning grandparent gives him some candy.



THINK ABOUT IT

When Jacob gets candy as the consequence of crying, what is likely to happen to the frequency with which Jacob will cry in similar future situations?

In all likelihood, the crying will increase. In the future, when Jacob does not have candy, he might cry in order to get candy because in the past, he has gotten candy after crying.



HINT

When a behavior followed by a consequence increases in the future, this is called reinforcement. The consequence that followed the behavior is called a reinforcer.

⇒ EXAMPLE



- **Antecedent:** The antecedent again is that Jacob has no candy.
- **Behavior:** This time, however, the behavior is different. In this example, Jacob says, "I want candy," either on his own or with help from an adult.
- **Consequence:** In this scenario, the consequence is the same – Jacob gets candy.



THINK ABOUT IT

When Jacob gets candy as the consequence of requesting candy appropriately, what will happen to the frequency of his appropriate requests for candy in similar situations?

Once again, it is likely that it will increase. In the future, when Jacob does not have candy, he might say, "I want candy," (an appropriate request) in order to get candy, because in the past, he has gotten candy when

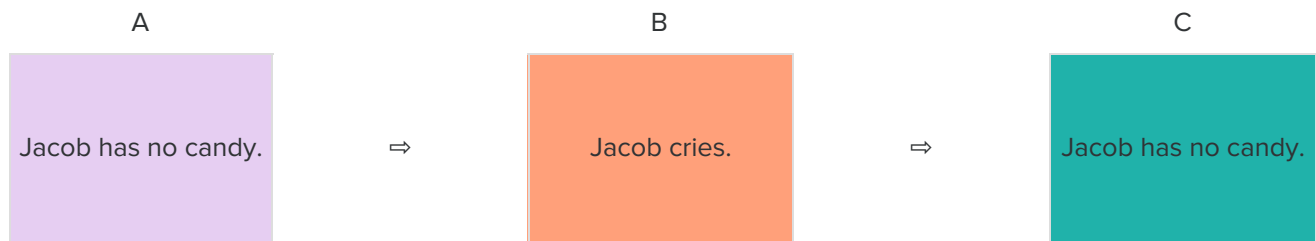
he asked appropriately.



HINT

When a desired consequence following a behavior increases that behavior, the process is called reinforcement. In this example, candy is a reinforcer.

EXAMPLE



- **Antecedent:** In this example, the antecedent is the same as the previous example where Jacob has no candy.
- **Behavior:** The behavior is the same as in the first example where Jacob cries.
- **Consequence:** But in this example, the consequence is different. The consequence is that no one gives him candy when he starts to cry.



THINK ABOUT IT

When Jacob does not get candy as the consequence of crying, what will happen to the future frequency of crying for candy in similar situations.

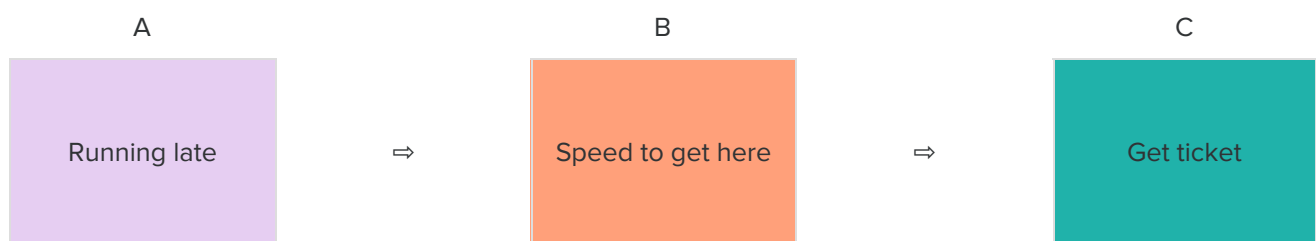
In this case, the crying will decrease. We can see here how changing the consequence changes the future frequency of crying in similar situations. In the future, when Jacob does not have candy, he is less likely to cry to get candy, because in the past, he did not get candy when he cried.



HINT

When a reinforcer no longer follows a behavior, the behavior decreases. This process is called extinction.

EXAMPLE



- **Antecedent:** The antecedent is that you are running late to get to an appointment.
- **Behavior:** Your behavior is that you begin speeding.
- **Consequence:** The consequence is that you are pulled over and given a speeding ticket.

If you get a ticket as a consequence of speeding, given that consequences control whether your speeding behavior will increase or decrease, we would expect your speeding behavior to decrease.



You've gotten a speeding ticket before, yet you periodically still speed. Why hasn't the consequence decreased your speeding?

You may still occasionally speed because the consequence has not been consistent. Most of the time when we speed, we don't get a ticket. The main point here is that consistency is crucial.

This applies to all of us and for the purposes of this training, it is critical to understand that this applies to individuals with ASD, too. If we give Jacob candy sometimes when he cries and sometimes we don't, his crying will not decrease in similar situations.

Therefore, when we implement an intervention, everyone working with the individual – behavior technicians, caregivers, and teachers – needs to be consistent in order to meaningfully change the child's behavior.

In this example, because of inconsistency, the speeding behavior did not decrease. But when a behavior followed by a consequence decreases in the future, this is called punishment. The consequence that followed the behavior is then called a punisher.

Video Transcription

So let's look at some real life examples to better understand the three term contingency and how it actually can help us understand behavior a little bit better. So let's say I see my friend walking on the other side of the street. So the antecedent would be I see my friend, OK? So when I see my friend, the behavior that I engage in, or that it prompts me to engage in, would be to wave and smile.

So the behavior would be waving with a smile, OK? And let's say the consequence that occurs because of that behavior is my friend makes eye contact with me, smiles, and waves back. So assuming that that's something that I like, something that's positive to me, what do you think is going to happen the next time I see my friend on the street?

That behavior that I engaged in resulted in something positive happening. So there's a greater likelihood that the next time I through that friend, I'm going to wave and smile. And I have sort of the expectation that I'm going to get that positive consequence again. So that behavior is going to increase. OK, make sense?

Now, let's say the opposite happens. So the next time I see a different friend. I see that friend crossing the street. I wave at them and I smile. But let's say this friend is maybe really busy or is in a bad mood.

And so instead of waving and smiling back at me, that friend maybe rolls their eyes and doesn't wave back, OK? So assuming, then, that would be a negative outcome for me, something that I didn't enjoy or maybe found a little bit upsetting, chances are when I through that friend in the future, I may not wave and try to make contact with that person, because I don't want to experience that negative consequence again. So because I experienced a negative consequence when I tried to wave at that friend, the next time that I see that friend, my behavior of waving is likely to decrease, OK?

Let's look at another example. And this is one we might all be able to relate to a little bit. So let's say it's snack time and I'm hungry and I see a vending machine, OK? So I see the vending machine and I want

maybe a bag of chips, OK?

So my behavior is I get out some coins and I put coins in the vending machine, OK? And so if that vending machine is working, what happens? I put the coins in and I get a good consequence. I get my bag of chips.

So assuming that that is a positive outcome for my behavior, the next time I'm hungry and I see that vending machine my behavior is going to go up. But let's look at it from the other angle. So let's say I put the coins in the vending machine, but the vending machine is broken. And so instead of me getting that positive outcome of getting my bag of chips, nothing happens, and I lose my money. So no chips, OK?

That's probably not the outcome that I was looking for. And so what is likely going to happen the next time I come across that vending machine is I'm not going to put my coins in, because I don't want to lose my money and then not get my chips. So if I see that vending machine maybe the next day, chances are I'm going to probably avoid it, because I don't want to lose my money again and get that negative outcome, OK?

3. Using ABA as an Intervention for ASD

Now that we've learned the three-term contingency, let's discuss how we apply this to individuals with ASD to accomplish the following:

- increase appropriate behaviors such as language, play skills, social skills, etc.
- decrease inappropriate behaviors such as stereotypy, noncompliance, tantrums, and aggression

You may recall the deficits and excesses in behavior we discussed previously that are seen in individuals with ASD. These may include deficits like language, social skills, and executive functions and excesses like stereotypy, tantrums, and aggression.

We manipulate antecedents and consequences to increase behavior. By manipulating the A's (antecedents) and C's (consequences), we increase the deficient repertoires such as language, play skills, and social skills.

🔗 **EXAMPLE** With regard to language skills, for instance, we want to increase the variety of language a child can use. We also want to increase the frequency with which the child speaks.

We also manipulate the antecedents and consequences to decrease behavior. By manipulating the A's (antecedents) and C's (consequences), we decrease the excessive behaviors such as noncompliance, stereotypy, tantrums, aggression, and self-injury.



HINT

As a behavior technician, you will not need to design the interventions that make changes to antecedents and consequences. The board certified behavior analyst (BCBA) will make those changes and instruct you in how to implement them.

Video Transcription

Let's look at one more example in regards to maybe an individual with autism spectrum disorder. So if I have a client and the client is hungry and sees cookie, OK? So hungry and sees cookie.

And so the client decides to start crying. And so the mother sees that the client is crying and doesn't want to see the child crying. And so the mother then gives the child a cookie.

So what has now happened is that that antecedent situation of seeing the cookie and being hungry led to the child starting to cry, which led to the positive consequence of being given the cookie. And so what's going to happen to that behavior in the future? It's probably going to increase, OK?

So we have to look at understanding the antecedents and the consequences in order to understand, number one, why the behavior might be occurring, and number two, what we can do to either increase that particular behavior or try to decrease that particular behavior.

Early intensive behavior intervention (EIBI) is recommended. Research shows application of principles of behavior are effective in reducing inappropriate behaviors and teaching skills to remediate deficits.

To maximize the benefit of EIBI for individuals with ASD, treatment needs to be

- initiated early in a child's life
- intensive, encompassing most waking hours
- comprehensive, addressing all excesses and deficits

For optimal outcomes, the following are recommended:

1. Treatment should begin early, prior to age 4 or earlier if possible, although EIBI is still effective if started later.
2. Intervention should be intensive, with a 1:1 therapist to child ratio, for 30-40 hours.
3. Intervention must be behavioral, based on principles of applied behavior analysis.
4. Treatment must be individualized, designed based on individual characteristics and modified based on the individual's response to interventions.
5. Treatment must be comprehensive, meaning all skill domains must be assessed and treated, and all inappropriate behaviors that hinder ability to succeed should be addressed.
6. Treatment should occur in the child's natural environments.
7. Caregiver involvement should be active to ensure that strategies are used across all environments.
8. Treatment should provide opportunities to learn from and interact with typical peers.
9. Duration of treatment should encompass two or more years, with some longer.
10. Treatment supervision should be provided by individuals with ASD experience and BCBA certification.

Research shows that ABA-based treatment programs are the only proven effective treatment for individuals with ASD.



THINK ABOUT IT

Name one common behavioral excess demonstrated by individuals with ASD and one type of behavioral deficit commonly seen in individuals with ASD.



SUMMARY

In this lesson, you learned about **the three-term contingency**, a method used within ABA that focuses on antecedents, behavior, and consequences to facilitate behavior change. By manipulating antecedents to and consequences of a behavior, we can increase desirable behaviors and decrease undesirable behaviors. The three-term contingency helps us see the behavior's relationship to the environment. Next, you explored several **examples of the three-term contingency**, reviewing different scenarios using the A-B-C Model.

Lastly, you learned about **using ABA as an intervention for ASD**, and how therapists manipulate antecedents and consequences to increase appropriate behavior and decrease inappropriate behavior. You discussed the recommendations for optimal outcomes when using early intensive behavior intervention, noting that research shows that ABA-based treatment programs are the only proven effective treatment for individuals with ASD.