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Positive Punishment And Other Oxymorons

Let's just admit it. Behavior analysts talk funny. They say things that sound familiar but that end up meaning some whole other something else. Most sciences have their own crazy jargon that they can only speak in whispers amongst themselves, but sheesh. Is it really necessary to name a process "positive punishment"?

Unfortunately some of our terms are borrowed from "real English", but used in a slightly different way so it can get confusing. The purpose of this article is to name and explain the five most common behavior change techniques: positive reinforcement, negative reinforcement, positive punishment, negative punishment and extinction.

First consider the terms positive and negative. In philosophy, some mathematics and sciences... and in behavior analysis, these have mathematical meanings. Positive means something is added. Negative means something is removed. Hold onto that thought for just a minute.

Now consider the term reinforcement. Remember that in behavior analysis, the thing we look at and study is behavior. We are interested in the person doing the behaving and the environment in which the behavior occurs, too, but the thing we directly examine and measure is behavior. In normal language, to reinforce something means to make it stronger. In behavior analysis, the thing that is reinforced is behavior. Behavior that is made stronger increases in rate... it happens more often. If you reinforce a behavior, it will happen more often in the future.

Reinforcement is a process through which an event known as a reinforcer follows a behavior AND results in a future increase in the rate of that behavior.

A reinforcer is the event that follows a behavior AND results in a future increase in the rate of that behavior.

Here's an example of reinforcement. Fido sometimes sits in the course of the day. Jane wants him to sit more often, so whenever she sees him sit, she immediately gives him a Scooby Snack, which are Fido's favorite treats. Fido sits a lot more often in the future.

What has been reinforced? Not Fido! Sitting has been reinforced. Sitting is now a stronger behavior because it happens more often. You can't reinforce a dog or a person. Well... you could if you put a full body cast on one, I suppose, but when you speak of behavioral reinforcement, remember that you are talking about reinforcing *behavior*. You're not reinforcing the one doing the behaving.



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Notice the capitalized ANDs in the definitions. It's important to remember that just because Jane gives Fido a Scooby Snack and just because Fido eats it up eagerly does not automatically make the Scooby Snack a good reinforcer! It's only a reinforcer if it works to make the behavior it follows increase. And the process is only reinforcement if the whole scene actually results in an increase in the rate of behavior.

Positive reinforcement is the procedure through which a pleasurable event is added to the situation following a behavior AND in the future the rate of that behavior increases.

Positive reinforcement is the most powerful tool in the behavioral arsenal. There is no better or more effective way to change behavior.

The example above with Fido and Jane is an example of a certain kind of reinforcement. Positive reinforcement. The Scooby Snacks were positive reinforcers. There are two kinds of reinforcement: negative and positive.

Negative reinforcement is the process through which an unpleasant event is removed from the situation or prevented from happening, AND causes an increase in the future rate of that behavior.

A negative reinforcer is the event that was removed from the situation AND whose removal caused the increase in the rate of the behavior.

An example of negative reinforcement. Rose wanted Rover to sit, so she pulled up on the leash attached to his collar. As soon as he sat, she released the tightness on his collar.

The tightness on Rover's collar was the negative reinforcer. He sat in order to get Rose to stop choking him.

Negative reinforcement requires that some aversive situation be in place in order for it to work. But the negative reinforcer need not be something that is applied by a human to make something happen. When we run to get out of the rain, for example, our running is reinforced by the opportunity to get out of the rain. We may get up at 6:00am instead of 6:30 to avoid being chewed out by the boss. We may turn the hot water faucet on in the shower a few moments before stepping in to avoid being hit with a blast of cold water. When you see someone or some animal avoiding or escaping something, think in terms of what negative reinforcement might be in effect.



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Negative reinforcement increases behavior, but it does so at the risk of making the person or animal avoid or escape the presence of the person or situation that results in the negative reinforcement. If you want someone to do more of something... AND you don't like hanging around with him or her, negative reinforcement is the way to go.

Extinction is a process which occurs when reinforcers... either positive or negative... used to be available after a behavior, but that are no longer there, causing a future gradual decrease in the rate of that behavior. Sometimes the decrease is preceded by an extinction burst.

An extinction burst is a temporary increase in variability, intensity and rate of behavior once reinforcement delivery is discontinued.

Mandy used to give Gerald a big kiss every time he washed the dishes in their love nest so Gerald washed the dishes a lot. She was a successful Tupperware Career Woman and got busy doing home shows, so over time she didn't kiss him as often. Over time Gerald washed the love nest dishes less and less often.

Putting a behavior on extinction does not mean that you just ignore unwanted behavior. It means you stop providing the reinforcer that was holding that behavior in place. Extinction is one of three ways to cause a behavior to decrease in rate.

Punishment is a process through which an event follows a behavior AND results in a future DECREASE in the rate of that behavior.

A punisher is an event that follows a behavior AND results in a future decrease in the rate of that behavior.

Like with reinforcement, punishment comes in two flavors: positive and negative. Positive punishment always makes people do a double take. "What? That's impossible! There is NO positive punishment! Punishment is not positive!" Well, it's the mathematical kind of positive. It means something was added to the environment.

Positive punishment is a process through which an aversive event is added to the situation following a behavior and results in a future decrease in the rate of the behavior.

A positive punisher is an event that is added to a situation following a behavior that results in a future decrease in the rate of the behavior.

Grandpa Jones's dog, Scruffert, sometimes chewed up Grandpa's shoes. Grandpa got tired of buying new shoes, so he started spanking Scruffert with a rolled up newspaper whenever he caught him chewing up a shoe. IF Scruffert no longer chewed up Grandpa's shoes, spanking with a rolled up newspaper was a punisher for Scruffert's behavior.



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What if spanking Scruffert with the rolled up newspaper has no effect on the rate of his chewing up of shoes? Are we talking about punishment? Nope, **if hitting doesn't have any effect, it is just old fashioned abuse.**

Punishment is another way to get people and animals to avoid you or to avoid displaying a lot of behavior around you. No one has fun hanging out with people who add unpleasant events to their environments. Some people just do less in the presence of that person. Others learn to lie to increase the odds of getting away with something the aversive person might not like. Others avoid that person like the plague. Some people go through the whole gamut. If they can't avoid the person, they fake it in their presence. If they can avoid them, they do. When they've had enough, they lash out. (Ever wonder why teenagers stay holed up in their rooms, develop surly attitudes and spend a lot of time away from home? How often do we incorporate positive reinforcement compared to how often we use negative reinforcement, positive punishment and negative punishment?)

Negative punishment is a process through which something desirable is removed from the environment following a behavior AND the future rate of that behavior decreases.

A negative punisher is an event that is removed following a behavior and results in a future decrease in the rate of that behavior.

Little Joe liked to hit Freddy on the head and make him squeal. Mom got tired of it, and the next time she noticed Little Joe hitting Freddy, she took away the cables to his X-box so he couldn't play any more. Little Joe hit Freddy less often in the future.

Dr. Keith Miller, author of the textbook, Principles Of Everyday Behavior Analysis, uses the term 'punishment by contingent stimulation' or PCS to refer to positive punishment, and punishment by contingent withdrawal, or PCW to refer to negative punishment. Sounds pretty jargony, but in my opinion it's less confusing. There is a book in which the term 'increaser' is used to describe the reinforcer and 'diminisher' is used to describe the punisher. These terms, too, would be less confusing. I do not recall where I read them, and it is of little consequence since the terms never really caught on anyway. Most people in behavior analysis and in animal training refer to positive and negative punishment.

So that's the big five. Positive reinforcement and negative reinforcement cause an increase in the rate of a behavior. Extinction results in a decrease in the rate of a behavior when reinforcement is no longer available. Positive punishment and negative punishment results in decreases in the rates of the relevant behaviors.

So the next time you hear a crazy behavior analyst or clicker trainer talking about positive punishment, you'll know why. They're all a little crazy. *Kellie SniderEditor, Behavior Logic EZine*