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David Who ??

Just as Isaac Pavlov, Burrhus Frederic Skinner, and Edward Thorndike have helped countless humans and canines with their interesting research and psychological findings, David Premack deserves a place of honour when it comes to understanding how humans/animals learn and how to effectively use reinforcements to train and change behaviours for even the most “stubborn” dogs.

The principle was derived from a study of Cebus monkeys by Professor David Premack, but has explanatory and predictive power when applied to humans and some other animals. For those of us interested in dogs and dog training this is a very powerful principle to put into play when training and has some wonderful bonuses attached to it.

Dr. David Premack's principle states that more probable behaviours will reinforce less probable behaviours.

David Premack and his colleagues conducted many experiments to test the theory of the Premack principle, specifically its effectiveness on humans. One of the earliest studies was conducted with young children. Premack gave the children two response alternatives, which were either eating candy or playing a pinball machine. These responses were measured based on which response was more probable for each individual child. Some of the children preferred one activity over the other. In the second phase of the experiment, the children were tested with one of two procedures. In one procedure, eating was the reinforcing response, and playing pinball served as the instrumental response. This means that children had to play pinball in order to eat candy. The results were consistent with the Premack principle, only the children who preferred eating candy over playing pinball showed a reinforcement effect. In another test, the roles of responses were reversed, and the results were identical to the first procedure. Only children who preferred playing pinball over eating candy showed a reinforcement effect. This study shows that the power of the Premack principle is that any high-probability activity can be an effective reinforcer for a response that the subject is less likely to perform, only if the subject prefers the high-probability activity (Domjan, 2010).

More Theories

Don't despair you don't need to learn Psychology 101 to understand and use Premack. Most of us have used these principles all our lives without knowing what it was called but what many don't know is the power of this principle in training your dog.

Premack examples

If you ever said to your children – “Eat your vegetables and you can have desert”

Clean your room and you get your allowance



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Did you ever ask your dog to sit then give him his meal?

Ask your dog to sit and throw his favourite ball

All of these are examples of the Premack principle. Eating Vegetables (low probability behaviour) gets Desert (high probability behaviour).

My dog doesn't like desert!!

Here is where you need to define first what you want from your dog. It needs to be reasonable, trainable and you need to be consistent with your desires.

Make a list. Write it down.

Now observe your dog's and identify his favourite activities. Ball chasing, tug of war, Sniffing, Running.

When I hear that clients have dogs that retrieve and play tug, I'm know that we already have the built in motivators to get the dogs to do the behaviours they want. Just need to show them how.

Premack theory works hand in hand with intermittent reinforcement, allowing you to wean your dog away from "treats" as rewards. Not only that, it allows you to utilize your everyday environment to train your dog. An important thing to always keep in mind is "what motivates my dog the most right now?"

How to start with Puppies

This is absolutely my favourite way to train puppies to stay.

Take one puppy who knows how to sit either on command or hand signal. Choose your word that means stay put and don't move such as stay or wait. Choose your word that means your dog can move (OK). Choose whatever words you like as long as you are consistent with their use. For instance don't use COME if you plan to use that as a Recall word in the future.

Set -Up

Have the puppy's food dish in one hand with delicious treats in it – 2-3 small pieces.

Get the puppies attention. Don't ask for anything yet.

Place the bowl on the floor and let the puppy eat.



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Pick up the bowl, and ask puppy to sit, say Wait and give quick hand signal don't hold the hand signal for too long, start to bend over to put the bowl down in front of the puppy about 2 feet away. Most puppies will get up – as they do – you stand up – I usually say “Too Bad”

Repeat – puppy will again try to get up to get the food.

Keep repeating until you see the puppy attempt to stay and not move – now is the time to quickly say your release word (Ok) and quickly put the bowl on the ground for the puppy to eat.

The goal is to release the puppy on the OK. If he gets up before you said OK grab the bowl and then you stand up say “Too bad” and request the sit again.

Slowly work this until you can put the bowl on the floor and take your hand off of it – But be careful, the puppy may try to beat you to the food. Your job is to get the food bowl up and out of Puppies reach. Don't let them beat you. If that puppy moves before you say OK – “Too Bad” “So Sad – No food.

Over a few days you will have a puppy who remains in sit stay position while you place the bowl on the floor and stand up, not moving until you say OK. Voila Premack in action.

Once your dog learns to give you something to get something he wants training becomes easy.

From the food bowl exercises I then teach dogs that doors while open don't mean go out until your say OK.

I start that in their crates at home. – teach them to sit by rewarding sit in crate by reaching in with food treats to teach them to sit in it. Once they are offering sit when I approach the crate – I slowly open door – if the get up, Crate door closes. Try again. Usually by the third time the dog remains sitting until you release them. Say OK and they can come out. Premack again.

Oh Yeah, But What about those Wild Childs!

Set-Up

Create a situation where the dog is sure to be over-aroused. Squeaky tennis ball, food or tug is a great way to create this hyper energy. Get your dog in a state of wild energy, the dog begins to jump or bark for the game (Instinctual Normal Dog Behaviour- trying to get the toy/solve the problem with attributes nature provided). In the middle of all that energy ask for something simple SIT/DOWN that you would prefer your dog offer rather than trying to climb your body or bark wildly for the toy. As soon as your dog picks the right behaviour “YES!” (Or clicker) and toss the toy.



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Eventually you hold the object and simply wait for the dog to offer you the (default) behaviour which will cause you to throw the ball/toy. The dog will enjoy performing the behaviour because he will think it is a cue to the game and fun. While this might sound hard to enforce, consider the mother who tells her child, “you aren’t allowed to go outside and play until you clean your room.” Cleaning her room is not a preferred behaviour for the child, yet since she is extremely motivated to play outside, she will perform the low probability behaviour for her “reward”: the high probability, or preferred, behaviour.

For our hyper active dog, once they catch on that the calm behaviour of sit or down, starts the game, of retrieve or tugging whichever activity they prefer, then I put more criteria on it.

First they must sit and now stay/wait until I say OK; then I throw or give them opportunity to tug.

Do that a couple of times then I ask for sit stay, pretend to throw the toy, most dogs fall for this and get up to chase it, I hold the toy “Too Bad” then request the sit again, and we repeat the pretend throw until the dog gets that by staying (same as food Bowl) he will hear the release work OK and that is what starts the game not me moving or throwing.

BONUS to Using Premack

The best part of the Premack principle is that it comes with a bonus. After repetition, your dog will start to love the activity that leads to the wanted behaviour. So if your dog learns to associate sitting with being allowed to go jump in the lake, the dog will be eager to do the sits, even automatically at times. If your dog learns that eye contact brings you to snap off the leash so he can go play, he will be more eager than ever to give you eye contact, even in other circumstances. So, while in the beginning, more probable behaviours were used to reinforce less probable behaviours, now the less probable behaviours have become worthy at the same levels as the more probable behaviours.

Premack Principle in action is great to watch and probably gives us the most bang for our training dollar.

Canine Caveats

If you “give in” to your dog for any of these things, then you're reinforcing the wrong behaviours. “Oh but I want to go for a walk.” Too bad. If you're serious about wanting certain behaviours, then don't give in to the unacceptable behaviour of barking and leaping at you while you attach the leash.

Remember **Dogs Do What Works**, and not only that they typically choose the path of least resistance. Enjoy them.



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References

- Wenning, C. Elements of Animal Learning: Applicable to Human Learning? [\[1\]](#)
- Domjan, M. (2010). *The principles of learning and behaviour*. Belmont, CA: Wadsworth.