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Psychology

An Exploration

Saundra K. Ciccarelli J. Noland White

Second Edition

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PEARSON

applying psychology to everyday life

Can You Really Toilet Train Your Cat?

13 What is a real-world example of the use of conditioning?



(This article has been excerpted with permission of the author and cat-trainer extraordinaire, Karawynn Long. Karawynn Long is a published writer and Web designer who lives in Seattle with her family. Sadly, since this article was written, her cat, Misha has passed away. Ms. Long can be reached at her Web site www.karawynn.net/mishacat/toilet.html. The italicized words in brackets are the author's "editorial" comments.)

There have been more books and articles about toilet-training cats than you'd think. In the summer of 1989, when Misha was a small kitten with big ears and enough meow for five cats, I searched out and read a half-dozen of them. And then tried it myself, and discovered there were a couple of things they all failed to mention . . . here's what worked for me and Misha.

The central idea is that the transition from litter box to toilet should be accomplished in a series of stages. [*This is shaping.*] You make a small change and then give your cat time to adjust before you make another small change. If at any time Felix gives the whole thing up and goes on the rug instead, you're pushing him too far too fast; back up a stage or two and try again, more slowly.

Ready? First start by training yourself. . .

The very most important thing to remember is: Lid Up, Seat Down. Post a note on the back of the door or the lid of the toilet if you think you (or your housemates or guests) might forget. And if you are accustomed to closing the bathroom door when it's empty, you'll have to break that habit too. [*In operant conditioning, this is part of "preparing the training arena."*]

Begin by moving the cat's current litter box from wherever it is to one side of the toilet. Make sure he knows where it is and uses it. Rest (this means doing nothing for a period of between a day and a week, depending on how flappable your cat is). Next put something—a stack of newspapers, a phone book, a cardboard box—under the litter box to raise it, say, about an inch. (Magazines are too slick; you don't want the litter box sliding around and making your cat feel insecure. Tape the litter box down if you need to.) Rest. Get another box or phone book and raise it a little higher. Rest. Continue this process until the bottom of the litter box is level with the top of the toilet seat. (For Misha I raised it about two inches per day.) [*Notice that this is the step-by-step process typically used in shaping.*]

At the beginning of this process, your cat could just step into the litter box; later he began jumping up into it, until at some point he probably started jumping up onto the toilet seat first and stepping into the box from there. Lift the seat on your toilet and measure the inside diameter of the top of the bowl at its widest point. Venture forth and buy a metal mixing bowl of that diameter. Do not (I discovered this the hard way) substitute a plastic bowl. A plastic bowl will not support the cat's weight and will bend, dropping into the toilet bowl and spilling litter everywhere, not to mention startling the cat.

Now you move the litter box over so that it's sitting directly over the toilet seat. (If your cat has shown reluctance over previous changes, you might want to split this into two stages, moving it halfway onto the seat and then fully over.) Take away the stack of phone books or whatever you used. Rest. [*Again, notice that everything has to be done in small steps. This is the heart of the shaping process—requiring too large a step will stop the process.*]



Misha's first attempt without the box. He scored two out of a possible four.
Karawynn Long

Here's the cool part. Take away the litter box entirely. (Ta da!) Nestle the metal mixing bowl inside the toilet bowl and lower the seat. Fill the bowl with about two inches of litter (all of this is much easier if you have the tiny granules of litter that can be scooped out and flushed).

Naturally, any humans using the toilet at this point will want to remove the metal bowl prior to their own use and replace it afterward. The next week or two the whole process is likely to be something of an annoyance; if you begin to think it's not worth it, just remember that you will never have to clean a litter box again.

Watch your cat using the bathroom in the metal bowl. Count the number of feet he gets up on the toilet seat (as opposed to down in the bowl of litter). The higher the number, the luckier you are and the easier your job is going to be...

...because next you have to teach him proper squatting posture. Catch him beginning to use the toilet as much of the time as possible and show him where his feet are supposed to go. Just lift them right out of the bowl and place them on the seat (front legs in the middle, hind legs on the outside). If he starts out with three or, heaven forbid, all four feet in the bowl, just get the front two feet out first. Praise him all over the place every time he completes the activity in this position. *[The praise is the positive reinforcement and should be done with each successful step.]*

(Misha is very doglike in that he craves approval and praise. If your cat is indifferent to this sort of thing, you can also reward him with small food treats and wean him from them later when the toilet behavior has "set." Just keep the treats as small and infrequent as possible—half a Pounce™ or similar treat per occasion should be plenty.) *[If treats are too frequent, it will make it difficult to phase out the reinforcer after the behavior is well learned.]*

When he is regularly using the toilet with his front feet out (and some cats naturally start from this position), begin lifting a hind foot out and placing it on the seat outside the front paws. Your cat will probably find this awkward at first and try to replace the foot in the litter. Be persistent. Move that foot four times in a row if you have to, until it stays there. Praise and/or treat.

Repeat with the other hind foot, until your cat learns to balance in that squat. Once he's getting all four feet regularly on the seat, it's all easy from here.

Which is fortunate, because the last bit is also the most unpleasant. I suggest that you postpone this stage until you have at least a weekend, and preferably several days, when you (or another responsible party) will be at home most of the time. I skipped through this part in about two days; I only hope that your cat allows you to move along that fast.

Begin reducing the litter in the bowl. Go as fast as he'll feel comfortable with, because as the litter decreases, the odor increases. You'll want to be home at this point so that you can praise him and dump out the contents of the bowl immediately after he's finished, to minimize both the smell and the possibility that your cat, in a confused attempt to minimize the smell on his own, tries to cover it up with litter that no longer exists and ends up tracking unpleasantness into the rest of the house.

By the time you're down to a token teaspoonful of litter in the bottom of the bowl, your next-door neighbors will probably be aware of the precise instant your cat has used the toilet. This is as bad as it gets. The next time you rinse out the metal bowl, put a little bit of water in the bottom. Increase the water level each time, just as you decreased the litter level. Remember—if at any point Felix looks nervous enough about the change to give the whole thing up and take his business to the corner behind the door, back up a step or two and try the thing again more slowly. *[Shaping takes a lot of patience, depending on the behavior being shaped and the learning ability of the animal—or person.]*

Once the water in the mixing bowl is a couple of inches deep and your cat is comfortable with the whole thing, you get to perform the last bit of magic. Take the mixing bowl away, leaving the bare toilet. (Lid Up, Seat Down.)



Misha demonstrates proper squatting posture. Note the look of firm concentration.
Karawynn Long

Text and photos from "Can You Really Toilet Train Your Cat?" by Karawynn Long. Reprinted by permission of the author.



Voila! Your cat is now toilet trained.

Some useful books on using operant conditioning to toilet train cats:

Brotman, E. (2001). *How to Toilet Train Your Cat: The Education of Mango*. Sherman Oaks, CA: Bird Brain Press.


DeCarlo, P. (2008). *Kick Litter: Nine-Step Program for Recovering Litter Addicts*. Coeur d'Alene, ID: CDA Press.

Kunkel, P. & Mead K. P. (1991). *How to Toilet Train Your Cat: 21 Days to a Litter-Free Home*. New York: Workman Publishing Company.

QUESTIONS FOR FURTHER DISCUSSION

1. Why would this technique probably not work with a dog?
 2. Are there any safety concerns with teaching a cat in this way?
 3. Are there any other difficulties that might arise when doing this training?
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chapter summary

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Definition of Learning

- 1 What does the term *learning* really mean?
- Learning is any relatively permanent change in behavior brought about by experience or practice and is different from maturation that is genetically controlled.

It Makes Your Mouth Water: Classical Conditioning

- 2 How was classical conditioning first studied, and what are the important elements and characteristics of classical conditioning?
- Pavlov accidentally discovered the phenomenon in which one stimulus can, through pairing with another stimulus, come to produce a similar response. He called this classical conditioning.
 - The unconditioned stimulus (UCS) is the stimulus that is naturally occurring and produces the reflex, or involuntary unconditioned response (UCR). Both are called “unconditioned” because they are not learned.
 - The conditioned stimulus (CS) begins as a neutral stimulus but when paired with the unconditioned stimulus eventually begins to elicit the reflex on its own. The reflex response to the conditioned stimulus is called the conditioned response (CR), and both stimulus and response are learned.
 - Pavlov paired a sound with the presentation of food to dogs and discovered several principles for classical conditioning: The neutral stimulus (NS) and UCS must be paired several times and the CS must precede the UCS by only a few seconds.
 - Other important aspects of classical conditioning include stimulus generalization, stimulus discrimination, extinction, spontaneous recovery, and higher-order conditioning.
- 3 What is a conditioned emotional response, and how do cognitive psychologists explain classical conditioning?
- Watson was able to demonstrate that an emotional disorder called a phobia could be learned through classical conditioning by exposing a baby to a white rat and a loud noise, producing conditioned fear of the rat in the baby.

- Conditioned taste aversions occur when an organism becomes nauseated some time after eating a certain food, which then becomes aversive to the organism.
- Some kinds of conditioned responses are more easily learned than others because of biological preparedness.
- Pavlov believed that the NS became a substitute for the UCS through association in time.
- The cognitive perspective asserts that the CS has to provide some kind of information or expectancy about the coming of the UCS in order for conditioning to occur.

What's in It for Me? Operant Conditioning

- 4 How does operant conditioning occur, and what were the contributions of Thorndike and Skinner?
- Thorndike developed the law of effect: A response followed by a pleasurable consequence will be repeated, but a response followed by an unpleasant consequence will not be repeated.
 - B. F. Skinner named the learning of voluntary responses operant conditioning because voluntary responses are what we use to operate in the world around us.
- 5 What are the important concepts in operant conditioning?
- Skinner developed the concept of reinforcement, the process of strengthening a response by following it with a pleasurable, rewarding consequence.
 - A primary reinforcer is something such as food or water that satisfies a basic, natural drive, whereas a secondary reinforcer is something that becomes reinforcing only after being paired with a primary reinforcer.
 - In positive reinforcement, a response is followed by the presentation of a pleasurable stimulus, whereas in negative reinforcement, a response is followed by the removal or avoidance of an unpleasant stimulus.
 - Shaping is the reinforcement of successive approximations to some final goal, allowing behavior to be molded from simple behavior already present in the organism.

- Extinction, generalization and discrimination, and spontaneous recovery also occur in operant conditioning.

6 What are the schedules of reinforcement?

- Continuous reinforcement occurs when each and every correct response is followed by a reinforcer.
- Partial reinforcement, in which only some correct responses are followed by reinforcement, is much more resistant to extinction. This is called the partial reinforcement effect.
- In a fixed ratio schedule of reinforcement, a certain number of responses are required before reinforcement is given.
- In a variable ratio schedule of reinforcement, a varying number of responses are required to obtain reinforcement.
- In a fixed interval schedule of reinforcement, at least one correct response must be made within a set interval of time to obtain reinforcement.
- In a variable interval schedule of reinforcement, reinforcement follows the first correct response made after an interval of time that changes for each reinforcement opportunity.

7 How does punishment differ from reinforcement?

- Punishment is any event or stimulus that, when following a response, makes that response less likely to happen again.
- In punishment by application, a response is followed by the application or experiencing of an unpleasant stimulus, such as a spanking.
- In punishment by removal, a response is followed by the removal of some pleasurable stimulus, such as taking away a child's toy for misbehavior.

8 What are some of the problems with using punishment?

- A person who uses aggressive punishment, such as spanking, can act as a model for aggressive behavior. This will increase aggressive behavior in the one being punished, which is an undesirable response.
- Punishment of both kinds normally has only a temporary effect on behavior.
- Punishment can be made more effective by making it immediate and consistent and by pairing punishment of the undesirable behavior with reinforcement of the desirable one.

issues in psychology: The Link between Spanking and Aggression in Young Children

A recent study has found that children who were spanked at age 3 are more likely to be aggressive at age 5 than children who were not spanked.

9 How do operant stimuli control behavior, and what kind of behavior is resistant to operant conditioning?

- Discriminative stimuli are cues, such as a flashing light on a police car or a sign on a door that says "Open," that provide information about what response to make in order to obtain reinforcement.
- Shaping, extinction, generalization and discrimination, and spontaneous recovery are other concepts in operant conditioning.

classic studies in psychology: Biological Constraints on Operant Conditioning

- Instinctive behavior in animals is resistant to conditioning or modification. Although an animal may change its behavior at first through conditioning, the behavior will revert to the instinctual pattern in a process called instinctive drift.

10 What is behavior modification, and how can behavioral techniques be used to modify involuntary biological responses?

- Operant conditioning can be used in many settings on both animals and people to change, or modify, behavior. This use is termed *behavior modification* and includes the use of reinforcement and shaping to alter behavior.
- Token economies are a type of behavior modification in which secondary reinforcers, or tokens, are used.
- Applied behavior analysis (ABA) is the modern version of behavior modification and makes use of functional analysis and behavioral techniques to change human behavior.
- Neurofeedback is a type of biofeedback in which the person is typically connected to an electroencephalograph, a machine that records the brain's electrical activity.

Cognitive Learning Theory

11 How do latent learning, learned helplessness, and insight relate to cognitive learning theory?

- Cognitive learning theory states that learning requires cognition, or the influence of an organism's thought processes.
- Tolman found that rats that were allowed to wander in a maze but were not reinforced still showed evidence of having learned the maze once reinforcement became possible. He termed this hidden learning *latent learning*, a form of cognitive learning.
- Seligman found that dogs that had been placed in an inescapable situation failed to try to escape when it became possible to do so, remaining in the painful situation as if helpless to leave. Seligman called this phenomenon learned helplessness and found parallels between learned helplessness and depression.
- Köhler found evidence of insight, the sudden perception of the relationships among elements of a problem, in chimpanzees.

Observational Learning

12 What occurs in observational learning, including findings from Bandura's classic Bobo doll study and the four elements of observational learning?

- Observational learning is learning through watching others perform, or model, certain actions.
- Bandura's famous Bobo doll experiment demonstrated that young children will imitate the aggressive actions of a model even when there is no reinforcement for doing so.
- Bandura determined that four elements needed to be present for observational learning to occur: attention, memory, imitation, and motivation.

applying psychology to everyday life: Can You Really Toilet Train Your Cat?

13 What is a real-world example of the use of conditioning?

- Writer Karawynn Long used shaping, reinforcement, and classical conditioning to train her cat to use the toilet in her bathroom instead of a litter box.

**TEST yourself**

ANSWERS AT THE END OF THE CHAPTER

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Pick the best answer.

1. Learning is _____.
 - a. any temporary change in behavior.
 - b. a change in behavior due to maturation.
 - c. any relatively permanent change in behavior brought about by experience.
 - d. any permanent change in behavior due to maturation.
2. In your college dorm, any time you take a shower, someone always flushes the toilet and causes the water in your shower to turn icy cold, making you cringe. After several episodes like this, you find that you tend to cringe whenever you hear a toilet flush, no matter where you are. In this example, what is the conditioned stimulus?
 - a. the cold water
 - b. the sound of the flushing
 - c. the cringing reaction
 - d. the sight of a toilet
3. A child has been classically conditioned to fear a white rat. If the child also shows fear when shown a white rabbit, this is called _____.
 - a. stimulus generalization.
 - b. stimulus discrimination.
 - c. spontaneous recovery.
 - d. extinction.
4. You move out of your dorm into an apartment shared with three other people. Unlike the shower in the dorm, this shower does not turn cold when the toilet is flushed, and you eventually stop cringing every time you hear the flushing sound. What has occurred?
 - a. stimulus generalization
 - b. stimulus discrimination
 - c. spontaneous recovery
 - d. extinction
5. When one conditioned stimulus is used to create another, this is called _____.
 - a. spontaneous recovery.
 - b. extinction.
 - c. higher-order conditioning.
 - d. shaping.
6. Tenia ate out with some friends and had fried oysters. The next morning she was nauseated and sick for much of the day. The next time she saw someone eating fried oysters, she felt queasy and quickly looked away. Her queasiness at the sight of the fried oysters was probably due to _____.
 - a. higher-order conditioning.
 - b. a conditioned taste aversion.
 - c. stimulus substitution.
 - d. stimulus generalization.
7. The fact that some kinds of stimuli (like a taste) are more easily and quickly connected to a response (like nausea) is explained by the concept of _____.
 - a. biological preparedness.
 - b. psychological preparedness.
 - c. instinctive drift.
 - d. stimulus substitution.
8. The key to the cognitive perspective of classical conditioning is that the presentation of the conditioned stimulus must _____.
 - a. provide information about the coming of the unconditioned response.
 - b. provide information about the coming of the unconditioned stimulus.
 - c. provide information about the coming of the conditioned response.
 - d. act as a substitute for the unconditioned stimulus.
9. In classical conditioning, the _____ are important in learning, but in operant conditioning, it is the _____ that determine whether learning will occur.
 - a. antecedents; consequences
 - b. consequences; antecedents
 - c. rewards; punishments
 - d. punishments; rewards
10. Who added the concept of reinforcement to learning theory?
 - a. Watson
 - b. Thorndike
 - c. Skinner
 - d. Pavlov
11. Which of the following is an example of a secondary reinforcer?
 - a. a candy bar
 - b. a glass of water
 - c. petting a dog
 - d. praising a child
12. Joaquin's parents have given his 2-year-old daughter, Marie, a very noisy jack-in-the-box toy for her birthday. Marie loves to turn the crank and make the puppet pop up, over and over and over. Desperate to have some peace and quiet, Joaquin gives Marie a popsicle, which distracts her and produces the quiet he was craving. But when the popsicle is finished, Marie goes back to the toy, cranking and cranking. Joaquin tries another popsicle. What kind of reinforcement process is taking place in this situation?
 - a. Marie is being positively reinforced for playing with the toy by receiving the treat.
 - b. Joaquin is being positively reinforced for giving her the treat by the quiet that follows.
 - c. Joaquin is being negatively reinforced for giving her the treat by the absence of the noise.
 - d. Both a and c are correct.
13. Sherry wants her dog to "heel" on command. At first she gives the dog a treat for coming to her when she speaks the command, "Heel!" Then she only rewards the dog when it stands at her side when she gives the command and, finally, she rewards the dog only when it is at her side and facing front. Sherry is using _____.
 - a. higher-order conditioning.
 - b. biological readiness.
 - c. shaping.
 - d. generalization.



14. One-year-old Ben learned to say the word *duck* when his mother showed him a duck in their backyard. That evening he sees a cartoon with a rooster in it and says “duck,” pointing to the rooster. Ben is exhibiting _____.
 - a. generalization.
 - b. discrimination.
 - c. spontaneous recovery.
 - d. shaping.
15. For every 10 boxes of cookies that Lisa sells, her scout troop gets a dollar. Lisa is being reinforced on which type of schedule?
 - a. fixed ratio
 - b. fixed interval
 - c. variable ratio
 - d. variable interval
16. Dennis buys a lottery ticket every Saturday, using the same set of numbers. Although he has only won \$25 on one occasion, he keeps buying the tickets. In fact, he’s a little afraid that if he doesn’t buy a ticket, that would be the one that would win really big. The fact that Dennis seems addicted to buying lottery tickets is a common characteristic of which schedule of reinforcement?
 - a. fixed ratio
 - b. fixed interval
 - c. variable ratio
 - d. variable interval
17. Sandy had learned that if her mother was smiling at her when she came into the kitchen, it meant that Sandy would probably be given a treat to eat if she asked nicely. But if her mother was frowning, she would not give Sandy anything and instead would shoo her away. Sandy’s mother’s facial expression was serving as a _____.
 - a. conditioned stimulus.
 - b. discriminative stimulus.
 - c. positive reinforcer.
 - d. negative reinforcer.
18. Liz failed her math test, so her parents told her that she could not play video games for a month. Her parents are using _____.
 - a. positive reinforcement.
 - b. negative reinforcement.
 - c. punishment by removal.
 - d. punishment by application.
19. To make punishment more effective, it should be _____.
 - a. very intense.
 - b. applied every other time the bad behavior occurs.
 - c. an aggressive type, such as spanking.
 - d. paired with reinforcement of the correct behavior.
20. In applied behavior analysis, _____.
 - a. skills are broken down into their smallest steps and then reinforced.
 - b. punishment by application is often used to control behavior.
 - c. researchers develop new theories of learning rather than actually solving problems.
 - d. the basic form of learning used is classical conditioning.
21. Jody has had repeated failures at asking guys out on dates. Finally, she gives up. One day at the office a really nice guy seems interested in her, but she refuses to even approach him. What concept might explain her reluctance?
 - a. latent learning
 - b. learned helplessness
 - c. insight learning
 - d. observational learning
22. Jared’s father is ill and cannot prepare his famous chili recipe, which Jared has watched his father make many times. When his father tells Jared that he must cook the chili, he panics at first. But then Jared finds that he knows how to put the recipe together anyway. His ability to prepare the recipe is an example of _____.
 - a. latent learning.
 - b. learned helplessness.
 - c. insight learning.
 - d. discovery learning.
23. Archimedes was told by the king to find a way to prove that a gold crown was really gold. While in his bath, he noticed the water that his body displaced out of the tub and shouted, “Eureka!” which means “I have found it!” If the crown was really gold, it should displace the same amount of water as an equal amount of real gold. This is a famous example of _____.
 - a. latent learning.
 - b. learned helplessness.
 - c. insight.
 - d. observational learning.
24. Jared realized that he had learned how to prepare his father’s famous chili recipe by watching his father in the kitchen for many years. This kind of learning is called _____.
 - a. discovery learning.
 - b. helplessness learning.
 - c. insight learning.
 - d. observational learning.
25. Barry would really like to learn to do ballroom dancing, but he has a severe limp in his left leg. Although he watches ballroom dancing on television and can remember all the moves and dips, he will be very unlikely to be able to learn to dance this way because he is missing a key element of observational learning. What is it?
 - a. attention
 - b. memory
 - c. imitation
 - d. motivation