



Module 4 : Concept Formation

- The definition of concept formation
- Types of concept learning
- What analogical reasoning means
- How concept formation is important to pets and your interaction

Concept formation defines the process by which pets learn to form distinctions between things, people, events and other pets. This is exactly what you can expect to cover in this module:

- The definition of concept formation
- Types of concept learning
- What analogical reasoning means
- How concept formation is important to pets and your interaction
- Studying your pet for better training

Concept Formation - 5m14s

4.1 Conceptual Behaviour in Pets



Scientists and psychologists believe the ability to form distinctions or conceptual classes of things, events and people, is not uniquely human.

There are nonhuman animals such as cats, dogs, birds, and other pets that can distinguish between "relations". It is possible to examine stimuli your pet receives and see a behavioural reaction to it. For example, you may live in a two-person household and walk your dog. Your dog may be walked by you or the other person. However, when both of you go out the door with your dog on the lead, it means the dog is going for a car ride. If the dog does not like car rides, it may try to run back into the house. The change in pattern and the knowledge that only one person walks him/her, unless it is a car ride, ensures the dog reacts.

What if after many walks with one person, you both decide you want to walk your dog? Your dog is not going to understand the change because their concept learning has indicated the only time both people go out the door is when a car ride is about to happen.

The way your pet learns through perceptual, associative and relational concept formation is a factor in their comfort level, recognition of objects, people and places.

4.2 Perceptual Concept Learning

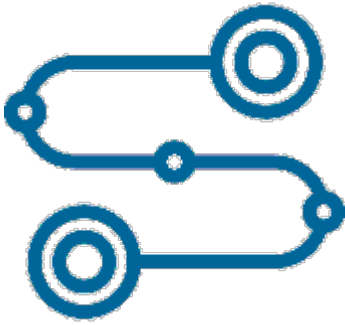
Perceptual concept learning is the ability to sort stimuli into classes, such as toys for play and toys for training.

For example, a dog can examine the physical characteristics of objects and categorise the stimuli they are being shown. The dog uses discrimination and generalisations to determine the differences. A dog can be trained to take a certain toy and put it in a certain location because of perceptual distinctions the dog can make between objects.

Studies by Smith and Medin, as well as Fetterman, have shown that an animal or pet's ability to discern items using vision is similar to humans to a degree. A human can look at an abstract picture of a cat and know it is a cat. An animal can see an outline, shadow, or other distinguishing characteristics and understand the same about certain stimuli in their life.

A good example of this perceptual class is an animal hunting at night. During the day we would find it easier to see defining characteristics; however, for animals like cats and owls, their vision is able to pick up enough characteristics of their prey and predators to understand which is which. To a degree, this makes perceptual concept learning about natural selection and the theory that the strongest survive versus the weakest.

4.3 Associative Concept Learning

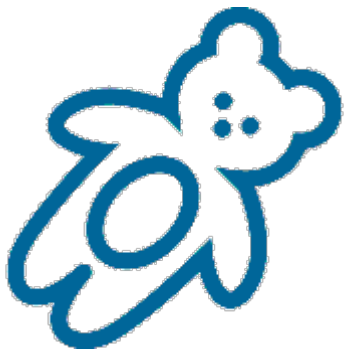


Associative concept learning is about arbitrary stimuli.

The reaction you see in your pet is associated with a common situation or outcome. You may have made a certain noise to keep your cat off the furniture, away from plants, or off the table. This noise may occur at other times, but the cat will react when they hear it, and react as you have trained them to when they are someplace they should not be.

Another example is taking your pet on the same walk each day. You have requested that your pet goes in one direction versus another during their walk. After a couple of walks, they naturally go that way, instead of stopping and looking to you, to see which way to walk. Your cues are telling your pet how to react. If the walking route is circular, it may not matter if they start by going to the left or right; however, they have learned to associate the place and your request to go in one direction rather than the other.

4.4 Relationship Concept Learning



Relationship concept learning takes perceptual concept learning a step further.

As with the example of a dog being able to distinguish between training and regular toys, there is an ability to examine the sameness or difference of an object, event, or person. If you have two toys that are exactly the same, you can see that your pet recognises this. You can also see that they can recognise if there is any difference to the toy.

Perhaps you bought a toy six months ago. It was your pet's favourite, but now it needs to be replaced. You buy the same exact toy, rub the old toy against it to get your pet's scent on it, put your scent on it, and then ask your pet to take the toy like it is their favourite. Yet, you notice they want the old toy. They recognise it is the same, but there is a relationship with the older toy, which the new toy cannot replace.

4.5 Analogical Reasoning

Analogical reasoning is considered a second order relational concept.

Pets are able to make analogies between objects whether it is the same, identical object or one that has differences. In this case, holding up three objects, where two are the same and one is not, will allow your pet to show that they can identify when objects are the same or different.

4.6 Concept Formation, Pets and Your Interaction



Starting to train and observe your pet early enough allows you to see the use of concept formation and implement it during their training.

Any pet has the intelligence to be trained, although some have more of an aptitude than others. By understanding how your pet learns, you can set a training regime that helps your pet learn. Trial and error is one way to start training a pet, but there is a better method through the idea of concept formation.

If you understand how your pet sees, feels, reacts to noises, tastes and smells, then you have the opportunity to train your pet on a higher level.

However, if you start training early, providing positive reinforcement and teach your pet through methods that they can understand, then you are creating a stronger bond.

4.7 Training your Pet by Studying their Concept Formation

Assessing your pet's behaviour and ability to understand concepts in their life, will help you train your pet.

There is more to training your pet, with regards to concept formation, than understanding the different types of learning your pet experiences.

Observation

Animal behaviour is often about observing your pet in their new habitat. You have already decided that there were qualities you enjoyed either about the breed or the individual pet; hence you have brought them to your home. You now need to give your pet a few weeks to adjust to their new environment. If you move to new homes often, say once a year because you live in an apartment, then you may need to observe your pet often. Simply changing their home can start new behaviours or bring back old ones.

Anytime you have a new pet or have been asked to train a new pet, it is important to observe for a few weeks. If you have other pets, how is this new pet interacting? Are there behaviours you do not like? Do they show an aptitude for elements you are already trying to train them on?

For example, a new kitten after two weeks, will need their nails clipped. Do they enjoy the procedure because you are showing them love, or are they trying to get away from you? What happens the next time you try to clip their nails? Through observation, you can also see how they react to the elements you use to clip their nails. Perhaps you bring out treats and the nail clippers. They might try their hardest to get a treat, but wriggle away when you try to pick them up.

This is because they can recognise the objects or noises the objects make. Seeing the nail clippers can immediately bring on dislike, but the noise the treat bag makes ensures they come around.

Natural Traits of your Pet

During the observation phase, it is important for you to understand the breed of pet you have.

Even mixed breeds of dogs, cats and other pets can display a range of natural traits that fit one breed rather than another. Siamese cats enjoy being outdoors and can be trained on leads. A mixed breed cat with Siamese characteristics may also enjoy this privilege.

German Shepherds typically show leading and rescuing tendencies, with a strong ability to be trained. They are also easy to get along with and enjoy children. A mixed breed with German Shepherd DNA as part of their whole DNA strand can also display these same qualities.

The Personality of Your Pet

Training becomes easier, more enjoyable for both of you and produces rapid results when you match the training to your pet's personality.

For example:

Some breeds of dogs are so sensitive to your approval, they will immediately crouch down to the floor if you so much as raise your eyebrow.

There are the happy-go-lucky breeds (like Labradors, for example) who may need a more focused and insistent approach to get them to learn. There is also a third category of dogs who may be more independent in their thinking and may not be as easy to train.

While you may need to change your training style for a home with multiple pets, all pets benefit from

a consistent approach with clearly set boundaries.

Here's a closer look at matching training styles to different pet personalities:

- **Highly Sensitive Pets:** Use a calm, quiet and sensitive approach. They don't respond well in chaotic environments. Examples of sensitive breeds include border collies and pit bulls.
- **Happy-Go-Lucky Pets:** These are usually highly engaged with their environment and may need consistent, repeated training to get it right. They may find it challenging to turn from rambunctious to calm.
- **Independent Pets:** You may need to use a firm, calm tone while establishing your authority over them. Never use force or harsh behaviour as this may make them aggressive.

Each breed has its own characteristics, both physically and behaviourally. Within that breed, there will also be individual personalities. If you have multiple pets you will already understand this concept. You may have two dogs from the same litter. Yet, one is extremely shy and clingy while the other is outgoing and enjoys any new adventure. Some personality traits will be overt and others covert. It will take you longer to observe certain traits and identify an appropriate reason for those traits.

Consider a middle child - The older child was given all the attention until the second child came along. At this point the attention became divided, and then a third child arrived. The middle child may now feel "invisible", as the older one may seem to be the favourite (being the firstborn), and the younger child needs more attention. The middle child can start to play up in a variety of ways that they did not before. **Your pets can be like this.**

If one dog was getting all the attention and a new dog is then introduced, they may feel there is a loss of proper care. The dog could start to play up to get your attention by reverting back to behaviour you do not like. This is often seen when negative reinforcement is used versus positive reinforcement of certain personality traits.

If a dog knows he will get reprimanded rather than ignored when doing something incorrectly, the dog may opt for the reprimand. It is an association of behaviour. Through their learning, they established what and how to get what they wanted.

Testing their Skills

Returning to our example of two pets from the same litter; it should be clear that their skill levels will also be different. It may depend on how early you start to teach a skill, their concept formation learning processes, or their desire to learn. You can test for certain skills, likes and dislikes when you bring the new pet to your home.

What does your pet like the most in terms of toys, food, attention and walks? Are there certain things your pet seems to do that could be turned into a skill?

Most cats enjoy being indoors but also being free to roam outside, without the constraint of a lead.

However, Siamese is one breed that enjoys a lot of attention and will learn to walk on a lead. This aptitude is shown through their desire to go outside but also feeling comfortable in the harness. However, most cats do not like anything on their backs or the weight of the harness, but a cat that does enjoy it will keep playing and appreciate the attention they are getting from you.

The next step would be to take the cat outside. After a couple of trips outside, whenever the cat hears the sound of the harness or sees you pick it up, the cat will associate the object with a fun outdoor trip.

FACT



Dog owners who took their puppy to a socialisation class said it made training their dog much easier.

Source: canidae.com

Summary

Above is just one portion of animal psychology that will help you train your pet better.

Understanding the main ways they learn through concept formation and the second class methodologies, plus how to apply it, will ensure you and your pet's interactions are worthwhile.

This module enabled you to start to deal with the 'real' psychology of your pet and apply it analytically to ascertain the best way forward for you and the animal.

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