

## How a family dog might learn his behaviour

The behaviour of a family dog is the result of many factors. Some of these may include heredity, natural instinct, basic senses, past experiences and basic drives. In analysing how a family dog might learn its behaviour, it is important to look at two schools of thought, 'nurture', where the dog learns how to behave, and 'nature' where the dog uses its animal instincts.

### Nurture

Behaviourists such as B.F. Skinner would argue a domestic dog is taught how to behave by its conditioning, or learning from its exposure to its own pack when young and thereafter with its human owners. Skinner did not believe genetics had any effect on behaviour, *"all behaviour can be explained by the principles of stimulus-response and operant conditioning"*.<sup>1</sup>

The critical periods which dogs begin to develop mentally, starts after the first 21 days of its life. Clarence Pfaffenberger, a retired teacher who devoted himself to the study of dogs and dog breeding, proved the more time a dog spends as a member of the human family, the more easily it learns its behaviour or social skills from them. *"The dog...is much like man, so much so we can sometimes study our own behaviour best, by studying the behaviour of dogs."*(p13)<sup>2</sup> A dog learns its social skills from its human family because it has the opportunity to practice, make mistakes, be corrected and receives praise for behaving well.

Almost all training is founded on Skinner's psychological principle of operant conditioning. This method works on the basis of reward or punishment for doing something. An example of operant training is when a dog returns to its owner after being called and is rewarded with a piece of liver. The piece of liver acts as a positive reinforcement of that action. By giving the dog a reward, this increases the likelihood of it returning to the owner when called.

A dog will also learn what to avoid, through negative reinforcement (e.g.) some owners use a choke chain on their dog to stop it from straining on the leash. As the dog pulls, the chain tightens around the neck and chokes the dog. Over time the dog learns not to strain on the leash, or it will be asphyxiated.

From birth, puppies use their newly developing senses to explore their environment and through the process of positive and negative reinforcement they learn how to act and be recognised as dogs.

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<sup>1</sup> *Behaviour of Organisms: An Experimental Analysis*

(*exert from online publication*)

B.F Skinner Appleton

B. F. Skinner Foundation 1999

<sup>2</sup> *Think Dog – An owner's guide to dog psychology*

John Fisher

Cassell Illustrated 2002

*“A major difference between the way we learn to behave to that of dogs, involves the use of language... A parent can explain to its six year old child that an action (praise or punishment) is related to an event in the past.”<sup>3</sup> Language can also identify and describe for that child exactly what behaviour merited the action.*

Dogs lack language skills, consequently good timing when applying the operant conditioning method, becomes critical when praising or correcting the family dog's behaviour. When training basic obedience, if the dog performed a great “sit” and the owner rewards the dog after its release, the dog gets confused as it believes it is being rewarded for standing up. Human actions towards a dog can have a huge impact on determining the dog's own behaviour.

## Nature

According to the U.S. Customs Training Manual for canine training; *“a dog's mind functions 80% of the time by instinct and 20% by knowledge acquired during its life.”<sup>4</sup> Acclaimed ethologists Konrad Lorenz, Nikolaas Tinbergen and Karl von Frisch, would probably have agreed. These ethologists cataloged the behaviour of many animals in their natural environments. Together they developed what is called an ‘ethogram’, meaning *“a complete listing of all the behaviours an animal performs in its natural environment...[the ethogram] includes both innate and learned behaviours.”<sup>5</sup> They catalogued four key behaviours; sign stimuli, motor programs, drive and programmed learning or imprinting.**

These behavioural characteristics can be seen in the family dog. Sign stimuli are used by the dog to assist in communication. Dogs communicate through their body language (e.g.) if a dog wants to warn another dog “to back off, or I'll bite”, the dog will hold its tail high, ears forward and erect, teeth are bared and its eyes will be wide to display its dominance and aggression.

The second behaviour is motor programs; a group of circuits or muscles occurring to accomplish a task. An example of this behaviour in the family dog is when it pants. When the dog is hot or anxious it subconsciously pants to cool down or to relieve stress, this is an uncontrollable response to a situation.

Drive or motivation is what causes an animal to stop one activity and start another at a specific time. How a dog is driven to act in a particular way at a particular time can be linked to its wolfish instincts of hierarchy within the pack. For instance, what drives a dog to jump up and down when visitors arrive at the owner's door? The answer lies with the behaviour of wolves in the wild. *“Dogs use their physical presence to establish*

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<sup>3</sup> *Animal Learning & Behaviour Modification* (exert from online publication)  
Kerry Vincent

Cornell University 2005

<sup>4</sup> *U.S. Customs Training & Behaviour manual* (exert from online publication)  
United States Police Canine Association  
(U.S.P.C.A) 2005

<sup>5</sup> *Behavioural Genetics & Animal Science* (exert from online publication)  
Temple Grandin and Mark J. Deesing  
Academic Press 1998

*superiority... [wolves] on returning to their pack from the hunt will lift themselves above their pack members...this reminds them [the subordinates] of their ultimate power.”(p. 152)<sup>6</sup>*

The fourth behaviour of the ethogram is programmed learning. This differs from classical or operant conditioning as programmed learning occurs early in life and only within a short time-frame known as the ‘critical period’. Additionally, unlike Skinner’s theory, no reward is necessary to ensure the animal remembers. *“During the critical period, an animal will acquire a memory through stimuli (e.g.) fruit fly larvae will imprint on the taste and smell of their food. If reared on a diet that contains apple extract, adult females will show a strong preference for apples when they search for a place to lay their eggs.”<sup>7</sup>*

Meyer’s example illustrates that imprinting is a special case of programmed learning. When the family dog is young it is a blank canvas. What puppies experience at this particular time will impact the way they behave as an adult. It is, therefore, vital that all contact with humans at this early stage be positive ones to encourage that dog to be an excellent family pet. For example, if a puppy’s first visit to the vet is a traumatic one, having been poked, prodded and inoculated, this can instill fear in the dog thereafter. Anyone who has spent time sat in a veterinary surgery will see how some dogs visibly shake while they wait their turn!

In summary, a dog’s behaviour is determined by a combination of genetics and learning, where nurture and nature go hand in hand. Despite centuries of selective breeding, the family dog still thinks like its wolf ancestors. It is a pack animal wanting to know its place in the pack and respond to the pack leader’s commands. In the mind of a domestic dog, the family are its pack leaders. How the family dog ultimately acts will be down to how it has been socialised with humans and its environment at key stages in its life, and how well the owners understand the dog’s ancestry and interpret the dog’s behaviour.

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<sup>6</sup> *The Dog Listener*

*Jan Fennell  
HarperCollins Publisher 2002  
(expert from lecture paper)  
John R.Meyer  
Department of Entomology  
NC State University*

<sup>7</sup> *General Entomology ENT 425*