

**Pack theory – Is the domestic dog still a pack animal?**

**by Diane Rowles 2009**

In recent years, dog owners, trainers and behaviourists all seem to be talking about “pack theory”. Nearly every behaviour problem that can arise in the domestic dog is described as a dominance issue and training methods based on the pack theory are used to deal with the problem. It is important to look at where the pack theory comes from and what it is based on, before we can decide if it is indeed relevant to our domestic dogs.

### **What is pack theory?**

Pack theory states that like wolves and other wild canids, dogs are pack animals and that they would naturally live in complex social groups with a clear hierarchy. The alpha male and female being the highest ranked in the pack, with all other animals knowing their place, down to the lowest ranked animal, known as the omega. The alpha pair have control over resources such as food and sleeping areas and choose if and when the other members of the pack have access to these resources. The animals in the pack, relate to each other through a series of submissive or dominant gestures, depending on their rank. If the alpha becomes weak or ill, he would be challenged and replaced by the next highest ranked animal.

Pack theorists claim that all domestic dogs spend their lives trying to increase their status within their human families. They believe that the owner or handler has to constantly demonstrate their „alpha status”. Humans who do not show that they are dominant, will be dominated by the dog, resulting in behavioural problems and particularly aggression. They advise that to show their alpha status, people should eat before their dog is allowed to eat, go through a door before their dog is allowed to go through and not to allow their dogs to get onto or sleep on their beds or furniture. Very often a trainer who bases his methods on pack theory will advise physical displays of dominance. The “alpha roll” involves pulling a dog down on to its back and holding it there. The dog is held in that position until it stops struggling, at which time it is thought to have

accepted its lower rank and is then allowed up. Another method of displaying physical dominance is „scruffing” whereby a dog is grabbed by the scruff of its neck and pinned down. A more extreme method used by some trainers is to lift the dog in the air by its collar and hang it there for some time before letting it down.

Originally the pack theory was based on studies of wolves. Studies that had been carried out on captive wolves in the 1940s, were popularized by the monks of New Skett in the 1970s. In 1975, Erik Zimen, put together wolves from various origins and studied them in captivity. One of his findings was that there was fighting and competition to establish rank. Pack theorists then started applying these same principles to the domestic dog and over the next twenty years it became a much talked about and practiced subject in the world of dog trainers, behaviourists and owners. Many books were written on the subject and television programmes were made featuring dog trainers who based their methods on the pack theory.

### **Studies on pack theory**

When **Erik Zimen** did his study on wolves in 1975, it wasn't taken into account at the time, that the wolves he studied were all from different origins and had been put together and forced to live in captivity. It wasn't a natural pack as the wolves were put together without choice. It was also suggested that captivity could have been a major influence on their behaviour.

In the 1960s the general idea seemed to be that because the domestic dog was the same species as the wolf, it would behave identically in the same circumstances. **L.David Mech** published his book “The Wolf: Ecology and Behaviour of an Endangered Species”. At that time he held the opinion that wolves are pack animals and will dominate each other, therefore the same must be said for dogs.

Mech continued his studies and over the following years, his opinion changed. After a thirteen year study of wolves at Ellesmere Island, he discovered that when not in captivity, wolves lived in family groups rather than in packs. These family groups consisted of parents and their offspring. The parents would feed and care for their offspring. Between one and two years of age, the pups would leave their parents to find their own mate. They would then produce their own offspring which meant that at some stage during their life, all the animals would actually have alpha status. Conflicts within the family groups was rare. In 1999, **Mech** published “Alpha Status, Dominance and Division of Labor in Wolf Packs”, in which he corrected his earlier mistakes.

In 2008, he wrote an article, “Whatever Happened to the Term Alpha Wolf?”. This was based on his studies of wolves living in the wild and he revealed in his article that their social behaviour was based on the family unit and it consisted of cohesion and co-operation and not on conflict. The idea of wolves fighting for dominance and „alpha status“ was replaced with one where parents and older siblings would lead, guide and care for the younger offspring.

Whilst all of these studies were being carried out on wolves, it was still questionable as to whether the findings did actually relate to the domestic dog.

**Dr. Frank Beach** spent thirty years studying dogs, at Yale and UC Berkeley. Nineteen years of this was devoted to the study of the social behaviour of a dog pack, in which he studied a pack of beagles.

These are some of his findings:

- Male dogs have a rigid hierarchy.
- Female dogs have a hierarchy but it is more variable.

- When you mix the sexes, the rules get mixed up. Males try to follow their constitution, but females have “amendments”.
- Young puppies have what is called “puppy license”. Basically, this means they can do almost anything. Bitches are more tolerant of this than the males.
- Puppy license is revoked at approximately four months of age. At that time, the older middle-ranked dogs will literally give the puppies “hell”. This involves psychologically torturing them until they offer the appropriate appeasement behaviours and take their place at the bottom of the social hierarchy. The top ranked dogs ignore all this.
- There is no physical domination. Everything is accomplished through psychological harassment and is ritualistic.
- A small minority of „alpha dogs” gained their position by bullying and force. Those that did were quickly disposed showing no-one likes a dictator.
- The vast majority of alpha dogs rule benevolently. They are confident in their position and don’t stoop to squabbling to prove their point. If they did become involved in squabbling, it would reduce their rank as only the middle ranked animals squabble. Middle-ranked animals do squabble. They are insecure in their positions and want to advance over other middle ranked animals.
- Low ranked animals do not squabble. They know they would lose, know their position and accept it.
- “Alpha” does not mean being physically dominant. It means that the dog is in control of the resources. Many alpha dogs are too small or too frail to physically dominate the other dogs, but have earned the right to control valued resources. An individual dog determines which resources he considers important. Therefore an alpha dog may give up a prime sleeping place simply because he could not care less about it.

**Dr. Frank Beach** considered his findings and how they related to the dog-human relationship:

- Physical force of any kind reduces your „rank“. Only middle ranked animals that are insecure in their place will squabble.
- To be alpha in the dog-human relationship, you need to control the resources. This does not mean not allowing the dog to sleep on beds or insisting that you go through doors before the dog. It is enough that your dog shows basic respect by asking them to sit before opening a door for them, giving them their food, playing a game or taking them for a walk. If you control the things that your dog wants, then you are alpha by definition.
- Train your dog. In the dog-human relationship, this replaces the phase in the dogs development of “revoking puppy license”. Children, women and disabled people are capable of training a dog, but few people are capable of physical domination.
- Reward deferential behaviour rather than rewarding pushy behaviour. If one dog pushes in front of another, give the other dog the attention or food. Make the first dog sit before it gets treated.
- Be a leader, not a boss or dictator.

Other studies carried out on both wolf packs and dog packs have also revealed that an animal who achieves alpha status through physical domination of other pack members, will not hold their status for very long before being eliminated. A finding that was also reported by Dr. Frank Beach. This finding dispels the myth that the alpha wolf or dog achieves and maintains its status through physical displays of dominance over other pack members.

This is a quote from **Myrna Milani DVM**, author and veterinary ethologist, on the subject. “ the mark of a true leader is the ability to control without force. And, in fact, wild animals who rely on brute force to maintain their status, typically get eliminated from the gene pool because this approach requires so much energy”.

## **Problems with pack theory and arguments against using it in relation to domestic dogs.**

Over recent years, the “Pack Theory” has become much talked about and widely used by trainers, behaviourists and owners. Popularity has increased due to television shows, which feature trainers such as **Cesar Milan**. Many people gain the impression from these television shows, that they offer a quick fix solution to even the very worst type of behaviour problems.

Taken to the extreme, the pack theory is used to explain every type of behaviour problem, with most of them being described as dominance issues. The same solution is given for every problem and that is the owner assuming the alpha role and showing their dominance over the dog.

Sometimes physical displays of dominance are used by the handler. These include the alpha roll, scruffing and hanging, which were previously described. The mistaken belief is that this is how an alpha animal would show dominance within a pack. Many of these ritualistic behaviours have been very wrongly misinterpreted.

One example is the alpha roll. Early researchers saw this behaviour and wrongly believed that the higher ranking wolf was forcibly rolling the subordinate, in order to exert their own dominance.

When wolves or domesticated dogs are closely observed, it is clear that this is actually an “appeasement ritual” which is instigated by the subordinate animal and not by the higher ranked animal. The subordinate dog or wolf offers his muzzle and when the higher ranked animal takes a hold of it, the lower ranking animal voluntarily rolls over and presents its belly. There is no force involved at all. A wolf would only ever flip another wolf over to expose its belly if it intended to kill it. This procedure can be extremely frightening and psychologically damaging to many dogs. Most “normal” dogs would put up resistance and some may even try to bite through fear aggression. In many cases this does happen and the dogs behaviour becomes worse. They can become more fearful or aggressive and start to lose trust in their human handler. The pack theorist will very often say that the animal is simply resisting the challenge to its status.

In an ideal situation, dogs are very tolerant and social animals. It is humans who like to show dominance. Dominance is very often learned and can become ingrained in a dog through miscommunication with humans. Dogs do have very strong survival instincts. Surviving means they will do whatever it is that they have to do, in order to function in their environment. All too often, this can be misinterpreted as dominance. Some dogs may display learned helplessness where as others may show aggression, bossy behaviour and even controlling behaviour. None of this is an attempt to increase their hierarchy. It is quite simply the dog acting on its survival instincts. When a dog regularly displays signs of aggression, it is usually as a result of punishment based training.

By explaining behaviour problems in terms of pack theory and dominance issues, this totally disregards all previous research on how animals learn. It does not take into account other factors that might be influencing the dog's behaviour and basic learning theories. A decent animal behaviourist or trainer will always look first at an animals past experiences. They will try and find the reason for the behaviour developing in the first place and the associative learning that has caused it. Take for example, a dog who as a puppy grew up with an older, very tolerant dog. As a puppy they may have learnt that in order to get playful interaction from the older dog, they run up to it and jump all over it. Their actions have produced the desired response from the other dog and associative learning has taken place. As the puppy gets older it may do the same to other dogs. Trainers who are hung up on pack theory would put this behaviour down to the dog trying to show dominance. They would say that the dog needs to be dominated and learn its place. Pack theorists would also say that if a dog jumps up at you, they are trying to show their dominance. Jumping up is a natural greeting behaviour for a dog, when they are happy and excited to see someone. To humans, this might not be desired behaviour, but it can easily be solved by basic training like teaching the dog to sit before any attention or reward is given to it.

In recent years, an increasing number of animal psychologists and behaviourists, have spoken up and produced research papers on why the pack theory should not be applied to the domestic dog. You will notice that the television programmes showing trainers who work on pack theory, carry a warning for people not to try these methods at home. The chances are that people would get bitten. The shows don't show the many dogs that have been traumatized by these methods and whose behaviour problems are more severe as a result of it. It has caused so much concern that the American Veterinary Society of Animal Behaviour, issued a statement on "The Use of Dominance Theory in Behaviour Modification of Animals. These are their key points:

- Despite the fact that advances in behaviour research have modified our understanding of social hierarchies in wolves, many animal trainers continue to base training methods on the outdated perception of the dominance theory. (Refer to Myths About Dominance and Wolf Behaviour as it Relates to Dogs)
- Dominance is defined as a relationship between individual animals that is established by force/aggression and submission, to determine who has priority access to multiple resources such as food, preferred resting spots, and mates (Bernstein 1981; Drews 1993). Most undesirable behaviors in our pets are not related to priority access to resources; rather, they are due to accidental rewarding of the undesirable behavior.
- The AVSAB recommends that veterinarians do not refer clients to trainers or behaviour consultants who coach and advocate the dominance hierarchy theory and the subsequent confrontational training that follows from it.
- Instead, the AVSAB emphasizes that animal training, behavior prevention strategies, and behavior modification programs should follow the scientifically based guidelines of positive reinforcement, operant conditioning, classical conditioning, desensitization, and counter conditioning

- The AVSAB recommends that veterinarians identify and refer clients only to trainers and behavior consultants who understand the principles of learning theory and who focus on reinforcing desirable behaviors and removing the reinforcement for undesirable behaviors.

The pack theory was originally based on a study of wolves and it was presumed that it could be applied to the domestic dog as they were both the same species. Dogs are not wolves and facts should be based on studies of domestic dogs for them to be relevant. Dogs exhibit behaviour that isn't seen in wolves and they also do not display all of the behaviours that wolves display. Research has shown that whether we are referring to wolf or dog packs, leadership in canine society is not won through brute physical domination.

It is wrong to assume that dogs see people as other dogs. Some dogs show aggression towards other dogs but are very friendly with people. Trying to replicate the behaviour of canines may just serve to confuse your domestic dog. Humans lack the capability to recognize and replicate the small subtleties of canine body language. Dogs on the other hand, who grow up with a human family, do learn to recognize certain human signs which relate to them. If you smile at your dog or talk to it with a certain tone of voice, the dog will know that you are relating to them and come to you with their tail wagging. If you raise your voice, they know that you aren't happy with them and may hide or adopt a submissive posture.

As studies of wolves have shown, an animal who does gain the status of "alpha" through physical domination and aggression, is unlikely to maintain that status for very long. Dogs are social animals and whether they live with other dogs or with humans, they do understand leadership. They will instinctively follow and respect a calm but firm leader. Domestic dogs are more likely to use displays of submission to help keep the peace, rather than displays of dominance or

aggression. If pack theory and dominance is based on a struggle to control resources, then as humans we are already in control of these resources. The domestic dog just has to learn to earn them by showing respect. If you don't appear to your dog as the calm and firm leader and insist on using bullying tactics or physical domination then this in itself may cause behaviour problems and your dog may be more likely to challenge your status.

**Dr. Ray Coppinger**, biology professor at Hampshire College, U.S.A. is an author of several books on the subject of canine behaviour. This is what he said in respect to the dominance model and "alpha rolling":

"I cannot think of many learning situations where I want my learning dogs responding with fear and lack of motivation. I never want my animals to be thinking social hierarchy. Once they do, they will be spending their time trying to figure out how to move up in the hierarchy".

One of the saddest things about pack theory is how it has affected many peoples relationships with their dogs. For a long time, dog has been known as "mans best friend". We regard them as loyal and loving companions and in most cases, as part of the family. The pack theory caused many people to re-evaluate this relationship. They were being presented with the idea that their pet dog was always planning, always scheming and just waiting for them to let their guard down, so that they could seize the opportunity to increase their rank and dominate their human family. This encouraged owners to take more of a competitive attitude towards their dogs. Always having to remind the dog who is "boss" and constantly assessing all their interactions with them instead of being able to behave naturally and instinctively.

Many highly qualified and respected behaviourists will tell you that it is fine to let your dog sleep on your bed or furniture if you are happy to let it. You don't have to make your dog wait for its

food until you have eaten first and you don't have to go through every doorway in front of your dog. The important thing is basic training based on traditional learning methods, so that your dog will get down when you tell it to, they will sit before you give them their food and they will calmly wait for you to open a door instead of scratching at it. This does not mean that your dog has "got one over you" and is likely to try and dominate you. It shows a perfectly normal, loving relationship between a dog and its human family, but one where the dog also has respect for its human leaders.

**Maureen Ross, M.A.**, author of "Alpha This, Alpha That", has spent twenty years training dogs, behaviour coaching and living with packs of dogs. She says "It is a myth that we are dogs alpha. More appropriately, we are its leader and/or parent in the human/dog household.

### **Why are present training methods still based on pack theory?**

The pack theory has been very much glamorized by television shows such as The Dog Whisperer which features Cesar Milan. Cesar Milan became a major celebrity in the dog world, having what could almost be described as a „cult“ following. Quite obviously the shows only featured cases where there was a successful outcome and many people were under the impression that these methods would offer a "quick fix" solution to any of their dog's behavioural problems. Books were written on the subject, newspaper and magazine articles were published and many websites could be found giving training advice based on the pack theory. With so much media coverage, people thought it had to be right. The basic concept of the theory was easy for people to understand. Most people have heard of the alpha male and alpha female within a wolf pack and understand that they are the highest ranking members of the pack. People welcomed the idea that all they had to do was show dominance over their dog and they could solve any behaviour problems.

Many amateur dog trainers and behaviourists were quick to jump in and claim to be experts on the pack theory and dominance issues. People who had very little or no knowledge at all of basic learning principles such as positive reinforcement, operant conditioning, classical conditioning and associative learning, could claim to alter behaviour just by taking the dominant role and being, alpha”.

Any behavioural problem they were presented with could easily be described by a pack theorist as being a dominance issue. If a dog jumped up to greet people, it was being dominant, if a dog was scared and refused to come from under a table, it was challenging your authority and again therefore it was a dominance issue. Every type of aggression would be described as a dominance issue. Rather than having to devise individual training programmes for each dog, the same simple answer could be given to each owner and that was to show your dog that you are the alpha, dominate them and not let them dominate you.

The idea of being “alpha” probably also appealed to many peoples egos.

To many people, the idea that their domestic dog was being compared to a wolf, was quite romantic and magical. They preferred to hold on to this myth, rather than to accept the reality that unlike the wolf who is a predator, the domestic dog is better described as being a scavenger, which separated from wolves over 14,000 years ago.

### **Would dogs naturally form and live in packs**

Various studies and observations have been carried out on free roaming dogs throughout the world. The results of these show us that dogs are highly social animals. They have a strong motivation to maintain contact with familiar individuals in order to avoid social isolation.

However, it is very rare that they actually form “packs”. When they do, these packs are very

loosely structured and animals will join and leave quite randomly. It has been observed that feral dogs seem to prefer to live in pairs or in small groups. Again these small groups or pairs are loosely structured and very often subject to change. Sometimes there will be a common ground where these pairs and groups will meet and greet other dogs but then leave with their former companions. One theory for this is that unlike wolves, dogs are scavengers, not predators. Most groups of feral dogs will live on the outskirts of towns or near to refuse sites. To live in larger groups or packs, would mean that there is greater competition for the valuable resource of food.

Personal observation after working with street dogs and feral dogs for several years, has shown that even the third generation of dogs born feral, prefer to live in pairs or in very small groups. In some cases mother dogs may leave their offspring not long after weaning, as they regard them as competition for food. The mother dog will usually pair up with another dog or join another small group. The puppies tend to stay together until about four to five months of age. At this time, it is not uncommon for fights as they do try to establish a hierarchy. This is also the time when they are most likely to split up from the rest of their siblings and form smaller groups or pairs. Once they have formed smaller groups or pairs they soon establish their social hierarchies, which allow them to live together and resolve conflict without having to use force. One dog clearly has control over resources. Whilst a group is trying to establish a hierarchy, it is not uncommon for the smallest or weakest member to be driven away from their group. This youngster may pair up with an older dog, who has been forced to leave another group. Their need for social contact is very great. Dogs that are not able to join a group and are in total isolation, seem to suffer psychologically.

A group of feral dogs will usually avoid direct contact with humans, but one feral dog on its own is more likely to eventually overcome their fear and make contact with people. The fear of social isolation is so great that sometimes a feral dog will join a human „pack” rather than be on its

own. Dogs may prefer to live in smaller groups or pairs, but there are situations where they are forced to live in a pack. Rescue centres are sometimes set up with a minimum of funds, especially in countries where there is little or no animal welfare. The centre may only consist of a piece of fenced land where the dogs live in a pack but are given food, water and shelter. Another example of dogs being forced to live in a pack is in a multi dog house hold. Social hierarchies are established, but they are complicated and only one of the factors that influence the dogs behaviour . Environment, past experience and motivation will also influence the behaviour of individual animals within the pack.

The social hierarchy is established and maintained by a variety of subtle signals and ritualized behaviours such as vocalizations, body postures and eye contact. Without a social hierarchy, these cues are not respected, which results in fighting. A position or rank within the hierarchy will be established by each member of the group, based on the outcome of their interactions with other pack members. Higher ranked animals will control access over valued items such as food, sleeping places and mates. In a multi dog household, these valued items may be food, toys, beds and even their owners attention. Studies have shown that there are different types of hierarchies when dogs live together in packs. These are:

- The Despotic hierarchy – a single individual is dominant over the whole group.
- Linear hierarchy – there is a clearly defined pecking order within the group.
- Triangular hierarchy – an unstable hierarchy where no particular dog appears to be in charge.

The highest ranking dog in the pack will not always be the first to eat, or sleep in the best spot. Motivation plays a major part in behaviour and at times the top dog may not be hungry or may

not be bothered where it sleeps and it is quite happy to let others step in without any display of rank or aggression.

## **Conclusion**

Dogs, like wolves are a social species and naturally live within a group structure, instead of living alone. Our perception of a wolf pack is one that has a strong structure, led by an alpha male and alpha female, with all other members of the pack, knowing their rank, down to the lowest ranking omega animal. Studies show that a pack of dogs living together, do not have the same strong structure. Whilst there is a certain amount of dominance and hierarchy, dogs prefer to live in smaller groups or pairs, in which animals join or leave quite randomly.

It may be more accurate to describe the domestic dog as a highly social animal who prefers to live in a group, either with other dogs or a human family, rather than to describe it as a pack animal.

The pack theory which has been applied to domestic dogs, was originally based on the study of wolves and their behaviour. Over the last twenty years, prominent wolf biologists have changed their opinions, acknowledging that wolves are more likely to live in family groups than in packs. We could not rightly describe the domestic dog as being a pack animal when it is now questionable whether wolves, upon which the pack theory was based, do themselves actually live in packs or in family groups.

## **Resources:**

[www.diamondsintheruff.com/pack theory.html](http://www.diamondsintheruff.com/pack%20theory.html)  
[www.tarynblyth.co.za/articles/pack theory fact or fiction/](http://www.tarynblyth.co.za/articles/pack%20theory%20fact%20or%20fiction/)  
[www.4pawsu.com](http://www.4pawsu.com)  
Journal of Applied Animal Welfare Science 7 (4), 279-285  
[www.dogtalk.com](http://www.dogtalk.com)

Diane Rowles 2009.