THE SOCIAL CAT: FELINE

WHO TO ADOPT & HOW TO INTRODUCE CATS TO PREVENT DISASTER Ilona Rodan, DVM, DABVP (Feline)

Until recently, cats were considered asocial animals. Cats are indeed social animals, but their social structure differs significantly from that of people and dogs. Feline stress is common for our household cats because of these differences and occurs in both inter-cat and human-cat relationships. In many situations, it results in problems, such as inappropriate elimination, marking, and other behaviors that lead to surrender or euthanasia of a once beloved companion. Even if the cat remains in the home, there is a decline in the cat's physical and emotional health. To alleviate these issues, it is essential for veterinary team members to understand the social system of the cat and know how to help clients make educated decisions about cat adoption. Clients who already have a cat and are adopting an additional cat may need to be educated about how to introduce the new cat to the household. You will also need to know how to address many common problems associated with multiple cats in a household.

The Social Cat

The feline social system is flexible, meaning that cats can live alone or, if there are sufficient resources, in groups. These groups are called colonies. Females, usually related, can live in colonies and collaboratively rear and nurse kittens. Males often have a larger home range or territory in which to hunt solitarily (Crowell-Davis et al. 2004; Bradshaw et al. 2012).

Within the colony, cats will choose preferred associates or affiliates. These cats demonstrate affection toward each other by allorubbing (rubbing against each other) and allogrooming (grooming each other) to maintain the colony odor (Overall 1997a). Allogrooming occurs especially on the head and neck; using this information can help owners to pet their cats in ways that are preferred by the cat. Affiliates also engage in other behaviors that help us recognize that they like each other; these include nose-touching as well as sleeping together or partially on top of one another.

Cats are more likely to allogroom a related cat rather than one that is not related. Adopting an already socially bonded pair, such as siblings, is preferable to adopting cats from different social groupings. If it is not possible to adopt related cats, adult cats are more likely to accept kittens than mature cats (Neilson 2005; Crowell-Davis et al. 2004).

A kitten's ability to adapt to people and other environments depends on genetics, confidence (in the tom [Bowen and Heath 2005]), socialization, experiences, and whether the queen is comfortable around people. Kittens become more social with people if the queen herself is well-socialized and calm around people and if the kittens are present with their mother during positive interactions by the queen with people (Crowell-Davis et al. 2004). The sensitive period for socialization to humans is the time during which particular events will most likely have long-term effects on development (Overall 1997a); for kittens, this is between 2 and 7 weeks of age (much earlier than for puppies, which is between 7 and 14 weeks of age). Kittens that have positive handling experiences during this period cope with stress better, display less fear, and learn tasks more quickly than kittens that do not receive positive handling during this period (Overall 1997a).

Older kittens and adult cats can still learn and adapt to new experiences and individuals. Cats are great observational learners, learning by watching other cats. Learning from people best occurs through rewarding desired behavior and with patience and understanding for the cat's need for a sense of control. Punishment, either physical or verbal, is difficult to do correctly and often leads to fear.

Colony members do not welcome unfamiliar cats into their colony and usually show aggression toward these strangers. If these unfamiliar cats continue to come around the colony and become familiar, they *may* gradually be integrated into the colony. This gradual process of increasing familiarity should occur when we introduce a new kitten or cat into a household with one or more already existing cats. Educate clients about cats needing to feel safe and needing to have a sense of control in the environment. Some cats, however, may never become affiliates.

Just because cats come together for feeding or to sleep on the same bed doesn't mean that they like each other or that stress isn't occurring in the feline household. In many households, cats come together because the primary resources are placed in one location. Cats are more likely to rest or sleep alone (Crowell-Davis et al. 2004); therefore,

multiple comfortable resting areas should be provided. Cats lack dominance hierarchies as well as the ability to diffuse conflict and develop reconciliation (Bowen and Heath 2005). In the wild, cats reduce potential fights by dispersing or avoiding each other (Rochlitz 2007). This is often not possible in the multi-cat household. Inter-cat conflict and behavior problems often occur because household cats lack multiple resources in multiple places, and therefore cannot avoid the other cat(s).

Hiding is a coping behavior that cats may display in response to stimuli or changes in their environment. It is commonly seen in stressful situations and when cats want to avoid interactions with other cats or people (Carlstead et al. 1993). In a study of 60 pairs of neutered, indoor-only cats, cats spent approximately 48% to 50% of their time out of each other's sight (Rochlitz 2007).

Multiple resources with easy access and out of view of other resources must be available. This includes hiding places and use of vertical space to allow cats to be apart if they so choose. Vertical space increases overall space and allows for the cat to oversee the environment. Litter boxes, food, and water stations that are placed in different locations so that individual cats do not need to see each other reduces competition for resources, bullying, and stress (Overall 1997b). Serious consideration should be taken before adopting a new cat if cats already exist in the home. Clients should be educated to let cats choose their own affiliates, and should be made aware that the greater the number of cats in a household, the greater the chance of behavior problems.

Feline Communication

The primary goal of cat communication is to prevent altercations with others. Fighting only occurs when other means of communication have failed.

The cat's senses are superior to ours, and cats perceive their environment through their senses to become alerted to threats. Cats also use olfactory, visual, auditory, and tactile communication.

Olfactory Communication

Olfactory communication plays an important role in feline social behavior. It enables hunting cats to communicate remotely by marking a territory as their own with a long-lasting signal (Bowen and Heath 2005). The sebaceous glands located around the cat's lips and chin deposit the cat's scent on objects, other cats, and people. The interdigital sebaceous glands leave olfactory signals through scratching, and the perianal area most commonly leaves the scent through spraying, but also through urination and middening (fecal marking). Spraying is a normal olfactory communication among cats, although inter-cat conflict in the household can induce spraying.

Unfamiliar scents can frighten and arouse cats. Providing familiar scents, such as that of a favorite person, can help a cat adapt to new situations. Synthetic feline facial pheromone analog mimics the natural pheromone that is deposited when a cat rubs its face on objects and has been shown to provide a calming effect to cats in unfamiliar or stressful environments or situations (Kronen et al. 2006; Griffith et al. 2000; Gaultier 2003).

Visual Communication

Cats communicate with a range of subtle body postures, facial expressions, and tail positions to diffuse tension and avoid physical contact with unfamiliar cats. Body postures help us identify a fearful cat from a distance. Facial signals, however, change more quickly and provide more immediate indications of a cat's fear and aggression level (Bowen and Heath 2005). Erect ears show the cat is alert and focusing on a stimulus. Ears swiveled downward and sideways indicate a defensive cat. Ears swiveled back or sideways indicate aggression, which is usually secondary to fear (ibid.).

Changes in the pupils are also important in visual communication. Slit pupils indicate a calm cat, widely dilated pupils signal fear and the fight-or-flight response, and oblong pupils signal aggression (Overall 1997b).

The cat perceives staring (especially by an unfamiliar person) as a threat. As visual people, we may stand and look directly at a cat, inadvertently inducing fear. Standing to the side and not directly looking at a cat that considers us unfamiliar or threatening will reduce the cat's fear. Additionally, if a cat is blinking, this signals that the cat is seeking reassurance in a tense environment; we can help comfort the cat if we blink slowly or make "winky-eyes" in the direction of the cat. Cats are often calmer if they can hide, eliminating the visual cues.

Vocal Communication

Most feline vocalizations bring cats together; the trill and the meow are friendly greeting calls. Cats also vocalize when communicating with humans, and they learn quickly how to get humans to respond to their vocalizations for food and attention. Cats purr when they are content, but they may also purr when they are sick or dying; the purr solicits contact and care. Cats hiss, growl, or shriek in defense or aggression.

Tactile Communication

Affiliate cats engage in allorubbing; they will do this with people or other species as well if they are socialized. Well-socialized cats enjoy positive contact with humans. Allogrooming occurs primarily on the head and neck; these are preferred areas for physical touch, and cats may become upset if they are petted in other areas.

Pet Adoption Recommendations

Unfortunately, many adopters do not have realistic expectations of what it means to live with a cat and what the cat's health and home-care needs are, and they may play with the cat in ways that lead to injury. Much of this occurs because more than 50% of clients report that they did not seek cat ownership, but rather, that their cats "found them," and 69% of them did not pay anything for the cat, which usually results in the owner having little to no education about the physical and emotional needs of the cat (Bayer 2012). Cats are often punished for performing normal behaviors in undesirable locations (e.g., scratching), or for hunting prey despite being well-fed. When people have multiple pets, often the pets do not get along, and these multi-pet environments often do not allow for cats to perform safe and natural behaviors.

By developing pre-pet-adoption services in your practice, you can help clients have realistic expectations about cats so that they can make informed decisions prior to adopting a pet or adding a cat to a household with already-existing pets. This pre-adoption appointment serves to educate clients about all of these situations and helps potential adopters know what to look for if they do still want to adopt a cat.

Topics to discuss include the following:

- Is adopting another cat the best choice?
- Will the owner be happy if the pets in the household are not friends, or need to be separated long-term?
- Can the owner afford the preventive care that each cat needs and afford the needed care if a pet gets sick?
- Is there enough space for resources in multiple areas?
- If adopting, how should the owner decide who to adopt?
- How can the home be prepared in advance?
- How can the client make sure the cat is healthy?
- How can the client make gradual introductions among the pets to prevent crises?

Introducing a New Cat

Most owners introduce cats by putting them together right away. Although some cats adapt quite readily, the majority have a more difficult time doing so. How cats are introduced can make a tremendous difference in the levels of stress experienced by all the household cats and can make the new cat feel comfortable.

There are several different suggested methods for how to introduce a cat, but the most important principles are the following:

- The owner(s) must have patience and make introductions very gradually
- Increase familiarity
- Provide a sense of control
- Have multiple resources available, and each resource in multiple places
- Reward the positive
- If a problem occurs at any time, start over

The speaker's preferred method:

• Prior to bringing home the new cat, set up a separate room so that the new cat can have its own safe space with all resources. Add synthetic feline pheromone to all cat areas, including both the new cat's space and

- that of the other cats. Ensure that the rest of the home has all the resources needed and that each of these resources is found in multiple places.
- Confine the new cat to the separate room so that the other cats can first become familiar with its scents and sounds. Spend quality time with the newcomer, but also with all the other cats. Provide safe hiding places for the new cat in its space so that it can hide if desired; this is an important coping strategy for a cat.
- Once cats are comfortable with the scents and sounds—which usually takes days to weeks—start to play and feed the most enticing food on each side of the door. Calm and curious behavior should be rewarded with special treats. Encourage the cats to paw at toys under the door.
- Bedding or a towel with the scent can be swapped to see how the cats react. If things are going well, open the door a crack so that cats can see each other. This can easily be done with rubber door wedges on each side of the door or a hook and eye. It is important to remind clients that patience and time are our friends with introductions. Weeks to months can make a lifetime of difference.

Multi-Cat Households

There may be many social groupings in a multi-cat household; in fact, each cat may be its own social group. Many cats do not get along well in multiple-cat households, but because they do not fight, it goes unnoticed unless behavior problems or stress-associated sickness occurs. People often misinterpret cat behavior, thinking they like each other when they come together to eat or sleep; however, this behavior occurs because the primary resources are all in one location. Many cats in multiple-cat households learn to avoid, and even "time share," using the same resting places and other areas, but at different times. By understanding the cat's communications and body postures, we can recognize the subtle signs of the aggression. Providing multiple resources with easy access, in multiple locations that are out of view of other resources, gives the cat choice and a sense of control. Resources include food, water, toileting, resting, and elevated areas. Vertical space increases overall space and allows the cat to monitor its environment. Litter boxes, food, and water stations that are placed in different locations so that individual cats do not need to see each other reduces competition for resources, bullying, and stress (Overall 1997b).

Conclusion

We are so fortunate to live with such fascinating creatures. Cats improve our lives in so many ways. When we understand them and treat them as the species they are, we can enrich their lives and increase their welfare, further enhancing the bond we share with them.

References

Bayer Veterinary Care Usage Study III: Feline Findings. Bayer HealthCare, 2012.

Bowen J, Heath S. An overview of feline social behaviour and communication. In *Behaviour problems in small animals: practical advice for the veterinary team.* London: Saunders, 2005.

Bradshaw JWS, Casey RA, Brown SL. *The behaviour of the domestic cat*, 2nd ed. Oxfordshire, UK: Cabi, 2012. Carlstead K, Brown JL, Strawn W. Behavioral and physiological correlates of stress in laboratory cats. *Appl Anim Behav Sci* 1993;38(2):143–158.

Crowell-Davis SL, Curtis TM, Knowles RJ. Social organization in the cat: a modern understanding. *J Feline Med Surg* 2004;6:19–28.

Gaultier E. Current research in canine and feline pheromones. *Vet Clin North Am Small Anim Pract* 2003;33:187. Griffith CA, Steigerwald ES, Buffington CA. Effects of a synthetic facial pheromone on behavior of cats. *J Am Vet Med Assoc* 2000;217:1154–1156.

Kronen PW, Ludders JW, Erb HN, et al. A synthetic fraction of feline facial pheromones calms but does not reduce struggling in cats before venous catheterization. *Vet Anaesth Analg* 2006;33:258–265.

Neilson JC. Top 10 cat behavior tips. Vet Med 2005;100(10):743–749.

Overall KL. Normal feline behavior: clinical behavioral medicine for small animals. St. Louis: Mosby, 1997a, 45–76.

Overall KL. Recognizing and managing problem behavior in breeding catteries. In August JR, ed., *Consultations in feline internal medicine*. St. Louis: Saunders, 1997b, 634–646.

Rochlitz I. Housing and welfare. In Rochlitz I, ed., *The welfare of cats*. Dordrecht, Netherlands: Springer, 2007, 177–203.