

The Anatomy Of Parrot Behavior

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Abstract:

Parrots are possibly the most misunderstood of all companion animals. Their natural inclinations sometimes mesh poorly with the innate tendencies of their human caregivers. Most parrots are genetically influenced to be loud, independent, and monogamous. Most humans prefer obedient, cuddly, gregarious pets that like everyone equally and are quiet in the morning. When attempting to modify the behavior of parrots to better fit their image of an ideal pet, many humans are inclined to use physical force and other aggressive tactics that they believe have worked for them in the past. These strategies often produce poor results and can have a significant negative affect on a person's relationship with their companion parrot. The scientific community has documented the advantages of positive reinforcement methods over negative behavior modification techniques. These principals, when used properly with parrots, can build lasting positive relationships between parrots and their owners.

Key words:

parrot, behavior, antecedent, consequence, operant conditioning, Skinner B.F., Pavlov I., Friedman S., reinforcement, motivation, positive reinforcement, negative reinforcement, punishment, aggression, force, dominance, incompatible behavior, elephant, training, biting, phobic, abuse, screaming, bonding, communication,

Introduction

The challenges associated with companion parrot behavior sometimes outweigh the rewards of having parrots as pets. That is the reason we see so many parrots offered for sale in newspapers, flea markets, and garage sales. That is also why we are now experiencing the incredible growth in parrot sanctuaries and rescue centers around the world. What many people thought would be a cuddly, colorful, intelligent little feathered companion turned into a screaming, independent, messy, biting, foreign being.

The purpose of this paper is threefold: (1) To examine the causes and consequences of the love-hate relationship so many humans have with their companion parrots, (2) to compare and contrast the behavior of companion parrots with their wild counterparts, and (3) to discuss the scientific principals of behavior and learning relevant to companion parrots and their owners. This information can help everyone develop a better understanding of companion parrot behavior thereby decreasing the challenges and increasing the rewards of living with birds.

The Human Factor

Humans are genetically adapted, and culturally conditioned, to use aggression as a tool for shaping and modifying behavior. Aggression and force are rehearsed from very early ages and are kept close at hand through most people's entire lives. Fortunately, cultural shifts and changing laws discourage blatant use of harmful aggression on humans and other animals. However, humans are still quick to use many forms of aggression and force when attempting to modify behavior.

Experience with training dogs may also contribute to a person's use of aggression on other animals. Humans

have more success in training dogs than any other companion animal. This success is partly attributed to a dog's willingness to submit to a human's forceful training techniques. Even the most inept dog owner can have some level of success teaching a dog to obey a command in order to avoid physical aggression. This is due to the dog's ability to learn and adapt rather than the training skill of the owner. Even though positive approaches produce far better results, the illusion of success associated with aggressive techniques encourages some people to use similar hard-line methods on other companion animals.

Aggression and force are the behavior modification tools most humans reach for when attempting to modify parrot behavior. Their approach is to make the animal comply with their demands and insure the bird knows the human is the boss. Sadly, some experts in the companion parrot community also preach this sentiment, encouraging this egregious practice. However, parrots, like most other animals, respond poorly to these techniques.

A changing culture

Humans have forced their dominion over animals for thousands of years, the history of which appears in many ancient cultures. A good example of cultural differences in training techniques can be found in the training of elephants. Asian elephant trainers, known as mahouts, teach their animals to work for them in the timber forests. Though the results are similar, the methods used to train these animals vary greatly between regions. Mahouts in Sri Lanka practice some of the most aggressive forms of elephant training in the world. (C.Wemmer, oral communication, 1986). Their philosophy is to dominate the animal and force it to believe that they are the matriarch, or lead elephant in the group. Sri Lankan mahouts use very aggressive and often brutal methods to deliver this mandate.

Elephant training in the south of India involves a very different style of training. These mahouts train elephants to perform the same duties the mahouts in Sri Lanka teach their elephants. However, where the mahouts in Sri Lanka are among the most forceful of all elephant trainers, the mahouts in the south of India are the most gentle. They have no bull hook (ankus), with which to hit the elephants in order to force them to comply. Both training styles achieve the desired results; the elephants perform the necessary work in the timber forests. The dramatic difference between the two styles of training is evident in the death rate of mahouts in the two regions. The highest death rate of mahouts in the world is in Sri Lanka and the lowest death rate of mahouts is found in the south of India (C. Wemmer, oral communication, 1986).

History details the human tendency to use force and aggression when training and handling many different species of animals. Although the trend is away from these punitive methods, they still survive today. Countless animals still have their spirits broken by ruthless trainers; tigers are still threatened with whips in their faces, elephants are still stabbed with bull hooks, dogs are still beaten to teach them to sit, and parrots are still wrapped in towels for biting. These callous methods still appear to produce positive results ... to the punisher anyway.

Fortunately, there is a cultural shift underway in the companion parrot community. Less than twenty years ago trainers practiced and espoused atrocious parrot taming and training methods that would be considered abusive today. Most of the purveyors of these cruel methods have either stopped practicing their craft or have changed their techniques. However, some parrot behavior experts still portray an underlying tone that parrots should be forced to comply with a person's commands. This encouragement still suggests the use of force and will hopefully one day give way to more positive methods.

The Nature Of Parrots

By nature, parrots are adaptive creatures. In the wild, they adapt to environments and situations as a matter of survival. This adaptability serves parrots well in captivity as an ability to cope with a human's aggressive and forceful nature ...but sometimes not without a fight.

Submitting does not come easily to a parrot, certainly not as easy as it does for a dog. Domestication has eased

the retaliation urge in dogs and allowed submission to protect them from repeated aggression. Parrots, on the other hand, have not experienced the benefits that domestication might have on their ability to cope with human aggression. Parrots live in a more primal state where defending themselves against aggression is the proper response. Consequently, parrots are more inclined to resist forceful handling and training techniques, which often results in a person being bitten.

Biting:

Next to screaming, biting is the most frustrating behavior for companion parrot owners. Many people have tried to justify their wounds with excuses and realizations that have little or nothing to do with the true cause of the bite. A bite is simply a behavior performed by a parrot. Like all behaviors, the consequence determines if the behavior will be repeated. If the consequence of a parrot biting a person's hand is the person leaving the room to go get a band-aid, the parrot may have just learned to perform the biting behavior in the future. A bite from a parrot may have lasting negative effects that go much deeper than superficial scaring to a person's hand.

Biting is almost unheard of in wild parrot societies. It is only in captive environments where escape is restricted and parrots are compelled to live in unnatural situations, that this uncommon behavior is seen on regular basis. In interviews with five parrot field researchers, with over 35 years of combined experience, only two incidences of a parrot biting another parrot hard enough to cause bleeding had been observed. (oral communications: A. Brice, February 1994, C. Munn, July 1998, J. Gilardi, February 1999, P. English, November 2000, D. May, May 15, 2001).

Biting is rare for parrots in the wild, but aggression is a daily occurrence. These aggressive encounters are usually associated with protecting resources like territory, mates, desirable perches, food items, etc. These interactions are most often limited to body language like the raising of the head feathers or a subtle look of the eye. Sometimes the aggression escalates to vocal displays such as growling or even more overt body language like thrusting the beak forward in a jousting fashion. In the wild, this body language is usually enough to deter an intruding bird and avoid negative physical contact with the resource holder.

Screaming:

A parrot's natural inclination to meet the sunrise with loud vocalizations is not often found on anyone's list of perfect pet traits. What many people feel is an annoying, obnoxious, and unnecessary behavior, parrots see as an expression of well being and important for establishing territorial boundaries and keeping in touch with neighbors and family members. The disagreement over the importance of early morning vocalizations will continue between humans and their companion parrots for many generations to come.

Instinctive screaming behavior, which normally occurs in the early morning and the evening, is just as natural a behavior for captive parrots as it is for their wild counterparts. Because this hard-wired behavior is innate, it is difficult to eliminate in companion parrots. Captive parrots are also prone to learning to produce these loud vocalizations in relation to desired responses, like the attention of their owners. This learned screaming behavior is much easier to extinguish with proper behavior modification techniques.

Bonding:

Another common misconception for parrot owners involves a parrot's inclination to bond to one person. Some people believe parrots should be like other house pets and accept everyone in the family equally. However, a parrot's nature is just the opposite. In the wild, parrots are monogamous creatures that generally mate for life. This natural tendency is alive and well in captive birds just as it is in wild birds. It is natural for a parrot to bond with one individual in a household. A bonded parrot will defend a territory, which could be anything from a cage, to a room in a house, to the entire house itself. A bonded parrot may also establish a personal aggression with one individual in a house who frequently invades the territory. This personal negative history can manifest itself in the form of routine biting incidents, or even full-on attacks.

Bridging the Gap

To gain a valid understanding of parrot behavior requires education in both the natural history of parrots and the science of behavior modification. Experience with companion parrots is also helpful but is a poor substitute for the former. Natural history of parrots, especially the particular species a person is working with, helps people understand the natural tendencies and instinctive behavior of parrots. Behavior modification techniques help people understand how to shape or influence undesirable behavior and how to create or strengthen desirable behavior.

Unfortunately, most parrot owners enter the relationship with their companion parrot with no information about its natural history and no understanding of behavior modification techniques. Therefore, they are left to their own devices to interpret the behavior they see in their bird. Even the most compassionate and well meaning person is set up to fail in this novel territory where parrot behavior seems like a foreign language.

When naïve parrot owners are faced with behavioral challenges, they turn to the only resource they know. They interpret, and often attempt to modify, the bird's behavior using the same tools that have worked for them most of their lives. They resort to physical force and aggression combined with a domineering attitude. As stated earlier, this approach is problematic and rife with faults.

A scientific approach

B.F. Skinner said: "Science is more than the mere description of events as they occur. It is an attempt to discover order, to show that certain events stand in lawful relations to other events." The science of behavior provides logical explanations for the behavior we see in our animals. These principles survive years of examination, challenges, and scrutiny. They supersede anecdotal information so common in the companion parrot world today.

It is through the combined knowledge of behavior champions like Pavlov, Skinner, Lorenz and Tinbergen, and many others, that important behavioral principals that apply to all animals, including humans, have been established. These principals hold valuable keys that can unlock even the most stubborn behavioral puzzle.

Operant Conditioning, also called instrumental learning, is the most effective and humane behavior modification technique used with animals. The word "operant" is itself worth considering as it is meant to acknowledge that the animal has the power to operate on its environment to produce desired consequences or to avoid undesired consequences.

The ABC's:

The most fundamental principle of operant conditioning is that behavior is determined by its consequences. Relying heavily on the original work of

B. F. Skinner, the focus of operant conditioning is on the smallest analyzable unit of behavior, the ABCs: Antecedents, Behaviors, and Consequences. In other words, a behavior does not exist in isolation of the antecedents that occur before it or the consequences that follow it.

Antecedents are the events and conditions that are present immediately before a behavior occurs that have influence on the performance of the behavior. They set the stage for behavior to occur. Antecedents primarily include cues but also refer to the little things that can easily go unnoticed, like the clothes a person is wearing, distractions outside an open window, the way a person holds his or her hand when they ask the bird to step up.

A behavior is anything an organism does that is observable. The blink of an eye, or a flinching action when startled, are both behaviors. However, they are reflexive behaviors and not learned behaviors. Learned behaviors account for many, but certainly not all, of the behaviors we see in companion parrots.

Consequences are events that occur immediately after the behavior which influence the probability of the

the behavior occurring in the future. It is the consequence of a behavior that determines if a behavior will be repeated. If a positive consequence follows a behavior, it is more likely to be repeated than a behavior that is followed by a negative consequence. There are two basic categories of consequences. Reinforcement refers to those that result in an increase or strengthened behavior and punishment refers to consequences that result in a decrease or weakening of future behavior.

Reinforcers:

There are two types of reinforcers: primary and secondary. Primary reinforcers are instinctive elements that are genetically associated with survival. These include things like food, water, and reproduction. Secondary reinforcers are learned through their association with either primary reinforcers or other secondary reinforcers. Secondary reinforcers are things like verbal praise, a scratch on the head, and the sound of someone saying “good” just before handing a bird a favorite treat.

Reinforcement is broken down into two categories: positive reinforcement and negative reinforcement. Positive reinforcement is something the subject likes and will work to achieve. Negative reinforcement is something the subject does not like, or will work to avoid. Both types of reinforcement increase the likelihood a behavior will occur again. Some common positive reinforcers for companion parrots are treats, verbal praise, a scratch on the head, and the companionship of someone the parrot likes. Chasing a parrot around a cage to get it to step on the hand is an example of negative reinforcement. The parrot increases the frequency with which it steps on the hand to avoid being chased, or to stop the chasing action.

Punishment:

Punishment is a risky behavior modification tool, at best. Punishment is anything that decreases the frequency of the behavior it follows. Like with reinforcement, there is positive punishment and negative punishment. Positive punishment is applying something to the environment and negative punishment is taking something out of the environment. For instance, squirting a screaming parrot with a spray bottle involves positive punishment. The behavior of screaming may decrease through the application of the punishing action of spraying the bird. An example of negative punishment is putting a parrot back in its cage in response to biting. The act of taking away the companionship and freedom from its cage may reduce the incidence of biting in the future.

As with all reinforcers and punishers the value of the consequence is in the eye of the beholder. Putting a parrot back in its cage for biting may be punishing, that is, it may reduce the incidents of biting in the future, but only if the bird would rather be with the owner instead. Putting a parrot back in its cage for biting could also reinforce the biting behavior if the bird wants to go back to its cage, or get away from the owner.

Punishment is a poor training strategy for a variety of reasons. First, punishment is effective only when the first incidence is strong enough to stop the behavior from occurring in the future.^{1,2} This alone should result in obvious moral dilemma regarding the use of serious force with any animal whether it is an effective strategy or not. The problem is that when punishment is dealt mildly it is unlikely to stop a behavior. Consequently, as the behavior persists there will be a tendency to increase the level of punishment. When covering a cage does not stop a parrot from screaming a person may be inclined to shake the bird’s cage. When that does not work the owner may intensify the level of the cage shaking. Gradually, the parrot will desensitize to the cover and the cage shaking and the screaming behavior will persist

The timing of punishment is critical to its effect on behavior. Parrots are inclined to get into mischief, including the chewing of furniture. All too often a parrot owner will come into the room to find that their bird has chewed a hole in the woodwork. The innocent looking parrot is sitting on the couch minding his own business. The irate owner rushes over to the parrot, scolds him for his misdeed and puts the bird back in its cage. The punitive action is unlikely to have any effect on wood chewing behavior because the discipline was not directly associated with the behavior. Parrots, like all animals, live in the here and now. They are primarily interested in activities

occurring at the present time and are less concerned about past events, unless the past events have had significant influence on their behavior.

Negative side effects:

Poor understanding of punishment is evident in many dogs that cower when their owner calls them. It is common for some dogs to run wild in a field disregarding their owner's persistent commands to return. As the dog ignores the owner's calls, the owner gets more and more frustrated. Finally, when the dog returns, the owner beats the dog for its insubordinate behavior. Unfortunately, the dog does not know what it was punished for. Was it punished for running in the field, chasing the rabbit, smelling the tree, or more likely, the behavior occurring at the time: coming up to the owner? Dogs that cower when their owner calls are often displaying submissive behavior that is the result of poor application of punishment.

Punishment has many other side effects that make it a poor choice for behavior modification. Punishment can cause anxiety, escape, deception, anger and aggression. Punishment is often associated with retaliation or revenge and is easily used by humans. Punishment is often reinforcing to the punisher. This aspect of punishment encourages its escalation and future use by the punisher. Because of its many negative side effects, punishment should be avoided when working with parrots or any other animal.

Positive reinforcement and negative reinforcement compared:

Negative reinforcement also comes with some inherent liabilities. An animal trained with negative reinforcement will operate only at the level necessary to avoid the negative experience. If a parrot is taught to go into its cage by forcing it with a dowel stick, the bird will only perform the action in the presence of the dowel. However, if the bird is taught to go into the cage with positive reinforcement it will look forward to performing the behavior to earn the reward. Many parrots are taught to step on the hand by applying persistent pressure on the bird's body. To avoid, or stop the pressure the bird learns to step on the hand. Many parrots have also been taught to step from one hand to another by tipping or tilting the hand the bird is on to offset the bird's balance. The bird steps from the unstable hand to the more stable hand. Birds trained with this form of negative reinforcement are likely to perform the behavior only in the presence of the negative action. However, birds taught to step on the hand for positive reinforcement, such as a scratch on the head, verbal praise, companionship, or a favorite treat, are more likely to perform the behavior with no hesitation.

Another interesting comparison of the effects of positive and negative reinforcement can be seen in at the Singapore Zoological Gardens. Sri Lankan elephant trainers originally trained the elephants at the zoo. The animals were poked and prodded into performing several behaviors for public demonstrations. The addition of two young elephants to the training program presented the opportunity to compare two training strategies. The goal was to teach both young elephants the basic behavior of raising their foot on command. The Sri Lankan elephant trainer would train the young female and this author would train the young bull.

The Sri Lankan trainer began his training with a light stab of the ankus to the front foot of the elephant. A cue, or command, was presented in conjunction with the pressure on the foot. As the animal lifted its foot, the pressure of the ankus was stopped. After the elephant placed its foot back on the ground the command was given again and the pressure was applied to the foot. Again, once the elephant lifted its foot the pressure was released. This procedure was repeated several times until the animal began to lift its foot at the command in anticipation of the pressure from the ankus. Gradually the animal learned the concept of lifting its foot on command. To increase the height of the foot raise, the trainer applied strong pressure to the foot after the initial action of lifting the foot and continued the stabbing action until the desired height was reached. To encourage quick performance of the behavior the trainer stabbed sharply at the foot with the ankus immediately following the command. During the training session the animal was uneasy, often confused, and anxious to the point of vocalizing and urinating.

The bull elephant's training began with the presentation of an apple to reinforce the acceptance of the trainer

approaching the animal's front foot. The next apple was offered for acceptance of the ankus in front of the foot. As the handle, or soft side of the ankus, was touched to the front leg of the elephant another apple was presented. The next few apples were presented in conjunction with a command and the touching of the side of the ankus on the front of the elephant's leg. The, the ankus was held approximately one inch in front of the elephant's leg and the command was given. For a few moments nothing happened as the elephant waited for the familiar touching of the ankus on his leg that he had learned signaled the apple reinforcement. Soon, the elephant made the slightest forward motion toward the ankus. As the ankus touched the elephant's leg the apple was presented. Next, the elephant moved his leg forward in a purposeful manner to touch the ankus in response to the command. The reinforcement was given when the elephant touched the ankus. Soon the elephant was touching the ankus held several inches off the ground. To increase height of the foot raising behavior, the ankus was held a bit higher. To encourage quick performance of the behavior the reinforcement was only presented for quick response to the command.

In both cases the elephants learned to raise their foot on command. Both animals learned the behavior in about the same amount of time. Ultimately, from the lay perspective of the general public who saw these animals perform in the presentations, the foot raising behavior was identical in both animals. However, there were significant differences in the results of the different training strategies.

The elephant trained with negative reinforcement eventually adjusted to the aversive nature of the ankus and her anxiety level decreased. She learned to raise her foot, but only when the trainer was near enough to strike her with the ankus if she did not respond to the command. She also learned to raise her foot only high enough to escape the pressure on the foot, or to avoid being struck for poor performance. She performed at the minimal level necessary. Her reluctance, and inconsistencies in performing the behavior, indicated her mild dislike for the performance of the behavior in the program. Her body language continued to show that performing the behavior was something she knew she had to do rather than something she wanted to do.

The elephant trained with positive reinforcement enjoyed the training sessions and looked forward to the opportunity to earn the reward. Once he understood the apple was associated with raising his foot, he began offering improved performance of the behavior, higher leg raises and unsolicited leg raises. He performed the behavior willingly, without concern for the proximity of the trainer. His body language and attention span suggested complete comfort with the training sessions and performance of the behavior. The positive reinforcement training also created in him an attitude that was extremely conducive to learning additional new behaviors.

Solving the puzzle

All behavior is a product of instinct or experience. Many of the behaviors seen in companion parrots are hardwired, or instinctive. These behaviors include things like contact calls, preening, bathing, flight, courtship displays, and territorial displays including aggression. There is also a wealth of learned behaviors displayed by companion parrots, like vocalizing for attention, biting for desired response, stepping onto a person's hand, or even saying "hello" when the telephone rings, etc.

In an attempt to simplify the interpretation of a behavioral situation, a person might ask themselves the following questions:

1. What is the motivation?
2. How does it apply to the behavior of the species in the wild?

For every action there is motivation. At a very base level the motivation is either to gain pleasure or avoid pain. Pleasure can be something as simple as a cool breeze on a hot day. Pain can be something as simple as the gentle force applied to a parrot's foot to encourage it to step up.

By asking, "what is the motivation?" a person is encouraged to view the situation from the bird's perspective.

People are inclined to apply human characteristics and traits to animals. This anthropomorphic interpretation of behavior is misleading and offers few insights into animal behavior. Anthropomorphism runs rampant in the companion bird community. One of the most egregious examples is the comparison of the intellectual capacity of parrots to that of young children. This association only promotes the misunderstanding of parrot behavior and further confounds the problems most people have with understanding their bird's behavior.

Perhaps the most significant advance of information about positive approaches to companion parrot behavior is an online parrot behavior course called Living and Learning with Parrots, offered by Susan Friedman, Ph.D. for the optional fee of \$50 donated to a worthy parrot cause. This course teaches students the scientific principals of behavior as they apply to companion parrots. Graduates of this course understand the benefits of positive approaches over negative approaches and are empowered to create fulfilling, positive relationships with their companion parrots.

Dr. Friedman teaches students to analyze the ABC's of behavior. As mentioned earlier, ABC's represent: Antecedents, Behavior, and Consequences. By taking this scientific approach to evaluating behavior people can gain valuable insights that will help them understand and modify the behavior of their companion parrots. Below are Dr. Friedman's six steps to analyzing the ABC's:

1. Describe the target in clear observable terms;
2. Describe the antecedent events and conditions that occur immediately before the behavior;
3. Describe the consequences that immediately follow the behavior;
4. Examine the ABCs in sequence and refine as needed;
5. Devise new antecedents and/or consequences to teach new behaviors or change existing ones;
6. Evaluate outcome in measurable terms and plan for maintenance and generalization.

For this demonstration, the target behavior is taking the parrot off the top of its cage and putting it into its cage. The ABC's can be listed as follows:

- A. Person reaches out hand to parrot on top of cage
- B. Parrot avoids person's hand by running to back of cage
- C. Person stops attempting to take parrot off cage

In this case the expected future behavior of the parrot is to continue running to the back of the cage to escape the hand or the person. So, the trainer needs to change the target behavior to one that is in a logical step toward the original target behavior. In this case, it would be the action of stepping on the hand. The next ABC sequence might look like this:

- A. Person offers peanut to parrot on top of cage
- B. Parrot steps onto hand
- C. Parrot receives peanut

The expected future behavior of the parrot in this scenario is the parrot will step onto the hand. Then next step might look like this:

- A. Parrot sits on person's hand as hand approaches the cage
- B. Parrot steps onto perch inside cage
- C. Parrot receives piece of apple

The expected future behavior will be the parrot going into the cage.

The ABC's work well for evaluating undesirable behavior as well as creating desirable behavior for parrots or their human caregivers. Consider the next example where the focus is on the human's behavior:

- A. Parrot is in one room and person in another
- B. Parrot screams
- C. Person comes into room providing attention to parrot

The expected future behavior is that the parrot will scream when it wants attention. The person has reinforced the screaming behavior with his or her presence. A positive approach to eliminating a screaming behavior may include the following strategy:

- A. Parrot and person are in separate rooms
- B. Parrot says hello
- C. Person enters room and gives parrot a attention

The expected future behavior is that the parrot will say hello when it wants attention. Keep in mind that some behaviors, like the example above, may require many repetitions of positive consequences to shape the behavior into its final form.

Analyzing the ABC's provides great insight into behavior. When combined with other critical information like the natural history of the animal, and the reinforcement history of the animal (including the particular behavior a person is attempting to modify), the ABC's empower a person to make dramatic positive changes to behavior.

What is in it for me?

Parrots, like all animals, seem to view the world with a "what is in it for me?" attitude. When faced with a situation, parrots consider the value the situation holds for them when deciding whether or not to perform the behavior. With this in mind, it is important that a parrot owner's relationship with their bird be built on honest communication. It may be advantageous to show a parrot a peanut to entice it to step off the top of its cage. However, if the parrot receives a sunflower seed, instead of a peanut for performing the behavior, the likelihood of performing the action in response to the peanut bribe in the future will be diminished. Parrot owners should always give the bird what they offer, or, always be honest in their communication with the bird. The best approach to positive reinforcement training is to avoid showing the subject the reinforcement until after the behavior has been performed. This way the trainer has more control of the situation and the bird will not be able to judge if the type or quantity of the reinforcement warrants response.

Small window of opportunity:

Latency is a common problem with many behaviors parrots have learned to perform. This slow performance creeps into the behavioral repertoire as a result of inconsistencies, or lax criteria, in the training process. Increased motivation, in the form of special treats or other types of desirable reinforcers, help eliminate latency in the performance of behaviors. Another strategy for decreasing latency is to create a sense of urgency to perform the behavior. Consider a hawk sitting in a tree watching a mouse run through the meadow. It has a small window of opportunity to catch the mouse before it disappears down a hole. A wild parrot might miss an opportunity for a tasty morsel or get left behind as its family members fly around the corner if it is too slow to fly from a perch.

To teach parrots to perform behaviors quickly, give them a small window of opportunity to perform the behavior. If the bird does not respond quickly to the cue, stop cuing the behavior and stop the session. After a short break of sometimes only a few seconds, present the cue again. By selectively reinforcing quick responses, a trainer can discourage latency and encourage quick performance of behaviors.

Two-way communication:

Body language is an important form of communication for parrots. The slightest tilt of the head or rising of the feathers can send important messages to other flock members. This form of communication is innate to parrots and used extensively in both wild and captive environments. However, in captivity much or even most of this body language goes unnoticed to a parrot's human caregivers. They fail to notice the slick feathers, or quick head movements, as a nervous bird instinctively looks for an escape path, a common avoidance behavior. Often, the first signs of nervousness most parrot owners notice are the obvious escape attempts or the growls and other vocal displays of discomfort and fear. By this time, they have already missed the myriad of signals that have preceded this most obvious show of discomfort and have pushed the bird to the brink of aggression.

Positive relationships are built on two-way communication. Understanding a parrot's body language is at the heart of any rewarding relationship between human and parrot. Unfortunately, sensitivity to parrot body language is not stressed enough in the companion parrot community. For instance, it is far more common to hear people say to give a bird a hug for good behavior than it is to hear them encourage people to observe a bird's body language to see if it likes being hugged. It is unfortunate that many people fail to realize the action of hugging is often viewed as a threat by parrots.

Incompatible behaviors:

Problem behaviors are common in the companion parrot community. Dealing with these problem behaviors can be a challenge for even the most astute bird owner. One strategy for eliminating undesirable behavior is to teach the bird to perform an incompatible behavior, or, a behavior that cannot possibly occur at the same time as another behavior. For instance, if a parrot bites a person when it sits on his or her hand, the person can train the bird to sit on the hand in an upright manner. It is impossible for the parrot to bite the person on the hand when the bird is in this upright position. To eliminate a screaming behavior a person can reinforce the bird for presenting a more acceptable sound, like a soft whistle. Screaming is incompatible with the soft whistle in that the two behaviors cannot be performed at the same time. If chewing on the couch is the problem behavior, sitting on a "T" stand in the middle of the room might be the incompatible behavior that can eliminate the chewing. A parrot cannot chew on the couch when it is sitting on the stand.

Learning to misbehave:

Many of the problem behaviors we see in companion parrots are the direct result of an owner inadvertently reinforcing an action. It is not uncommon for parrots to learn to scream when people are on the telephone. This very common problem behavior occurs because of its reinforcement history. The reinforcement is often something as simple as the owner approaching the cage to quiet the bird. This very subtle, almost imperceptible, action can easily encourage the bird to perform the screaming behavior in response to the antecedent of seeing the owner on the telephone.

Another common problem behavior is the small nipping on the arm that a parrot might do when it wants attention, or a bite of something a person is eating. The antecedent is the owner eating a cookie, the behavior is a small nibble to get the owner's attention, and the reinforcement is the presentation of a piece of the cookie to distract the parrot and temporarily stop the annoying behavior. A single reinforcement in a situation like this is often enough to teach a bird to bite a person's arm.

Height dominance:

Although there is no scientific evidence supporting the height dominance theory in parrots, this construct is easily accepted by naïve parrot owners searching for easy explanations of complicated problems. Perhaps personal experience with dominance hierarchies allows people to accept the height dominance theory. After all, dominance hierarchies, even ones associated with height, are common in human culture. Even some domesticated animals, such as dogs and chickens, exhibit dominance-based hierarchies, although there is current discussion over the accuracy of this commonly held belief regarding straight-line dominance hierarchies, or so called pecking orders,

with dogs.

Parrots have no innate urge to dominate other parrots to establish a hierarchy. Parrots do, however, attempt to dominate other parrots in contests over resources such as food, desirable perches, nest sites, etc. However, these aggressive interactions are specific only to the situations and are not associated with the formation of rank or pecking order. A parrot that wins one dispute might just as easily lose the next dispute with the same bird.

It is very possible that people mislabel, or confuse height dominance with aggression. It is common for parrots to learn to use aggression to avoid human interactions. Parrots have a natural desire to be up high where they can get a good view of the surroundings, and for some, get out of people's reach. A parrot's aggression can occur as a result of the consequence history of being taken off the cage and locked inside. At first, avoidance behavior temporarily delays the bird's compliance. However, it may eventually learn to lash out aggressively in opposition to the negative pressure. If the consequence of the bird's aggression is the cessation (even temporary cessation) of the negative action, the aggressive behavior may be reinforced.

Phobic birds:

Visits to companion parrot behavior Internet lists often reveal discussions of phobic parrots. There are even discussions of parrots faking phobic behavior. It is suspect that these accounts are accurately described as phobic behavior. A phobia is an "irrational fear" of something. It is the experience of this author that most phobic behavior described in parrots is more accurately described as "rational fear" behavior resulting from being forced into a frightening situation.

An important distinction between fear and phobic behavior lies in the responsibility for the antecedents associated with the fear behavior. It is easy for some parrot owners to take their parrots into situations that cause fear response. Unfortunately, some people blame the bird's fear response on the illusion that the bird is "phobic," thus relieving him or herself of responsibility for the action. They place the blame on the parrot when the blame should really fall on them.

Parrots, like all animals, have an innate tendency toward some level of distrust in novel situations. This is a survival strategy that protects them from predators and other potentially dangerous situations in the wild. This natural tendency to distrust new experiences varies greatly in individual parrots. Past experiences, especially during early formative months, have significant influence on a parrot's ability to cope with novel experiences later in life.

It is true that many parrots display fear response behavior when faced with novel situations. However, this is most often a natural event, not phobic behavior. It is the responsibility of the parrot owner to protect parrots from situations that can cause physical and psychological harm, including fear. "He's phobic" should never be an excuse, or relieve a person of responsibility, for forcing a bird into a fearful situation.

Abused parrots:

"Abuse" and "rescue" are buzzwords common in companion parrot culture today. These words are often tossed around carelessly with little regard for the indictment they suggest. It may be for this reason that these words have begun to lose their significance.

No one has defined "abuse" as it applies to parrots. Additionally, there are no "official" standards for the care and management of pet parrots. Only the subjective judgment of parrot owners dictates what is best and what is right for companion parrots. One person's idea of proper care or housing for a parrot can easily be another person's idea of abuse. One person's purchase at a pet shop may be another person's "rescue."

One might consider the question of "from whose perspective is abuse determined?" Is only the human perspective

important to consider, or is it possible to consider the perspective of the parrot? Is it possible, or practical, to evaluate what an animal is thinking, or feeling, or is it enough to justify people's actions with their good intentions?

Are a parrot's physical and mental health good indicators of abuse? An avian veterinarian can determine the physical health of a parrot as it relates to possible abuse. Mental health can be evaluated using a bird's body language to determine levels of stress, anxiety, apathy, fear, etc. For instance, if a person forces a parrot into a situation where it is growling, screaming, hissing, and frantically trying to flee, abuse is possibly at work. Of course, there are times when increased levels of stress cannot be avoided, such as during an examination by a veterinarian. Emotional stress, and mental well being, although currently ill defined in parrots and beyond the scope of this paper, should also be considered as part of a parrot's overall health.

The thought of allowing parrots a voice in the evaluation of their care is a novel concept for most people, but one with huge potential. For this idea to take root many people will have to change their attitude and practices when working with parrots. Some people will have to adopt new, more positive, methods when working with their birds to avoid creating increased levels of stress. The result of these positive methods will most likely lead to better relationships with their companion parrots. The concept and practice of dominating a parrot will not survive in this new era of positive relationships. Past relationships built on negative interactions will give way to positive reinforcement of good behavior that will lead to more enjoyable and fulfilling relationships between bird and human.

People will also begin to evaluate their housing and management of their parrot using these new criteria. For instance, the woman who wrote on a list recently that she had just rescued an abused parrot from a pet shop will be encouraged to evaluate from the parrot's perspective what is more comfortable, life at the pet shop with other birds and people, or life alone in her home. For many people, keeping a parrot alone in a cage while they are at work seems absolutely normal. For a parrot, it is a dramatically unnatural living environment. Wild parrots are almost never alone. Unless the female is sitting on eggs or young hatchlings, most parrots have a mate or partner constantly by their side 24 hours a day, every day of their life. This is significantly different from the 3-5 hours a day of companionship many parrots receive in captive environments. The effects of this isolation are unknown and so far unstudied.

Abuse, as it applies to companion parrots, is a term that warrants definition. This may be the first step toward the creation of standards for the care, management and training of companion parrots.

The veterinarian's role:

In the minds of many companion bird owners, there is no higher bird authority than their avian veterinarian. That puts avian veterinarians in a unique position to protect and improve the well being of companion parrots by educating their human caretakers. Historically, many pet owners have relied on their veterinarians for medical advice only. How fortunate that nowadays, more and more people turn to their veterinarians for behavioral advice, as well. An avian veterinarian's role extends beyond the physical health of the birds and involves the bird's mental health as well. Right or wrong, veterinarians are the behavior "experts" to many, if not most, of their clients.

Veterinarians have the power to persuade people and influence important trends in the companion bird community. Positive reinforcement is a tool that can revolutionize pet bird ownership, and veterinarians can empower people to use it. By educating clients about sound strategies to avoid force and aggression by using positive reinforcement, a veterinarian might save a parrot from an abusive situation. They can also help parrot owners understand their responsibility to protect their birds from stressful situations by becoming more sensitive to their body language and avoid forcing them to do things they do not want to do. This will surely have an important positive impact on the lives of companion parrots.

Additionally, veterinarians can encourage a proper understanding and use of terms like, “abuse, rescue, phobic, and height dominance.” The evaluation of these terms with a client may reveal valuable insights and information that can change the way people think about and work with their birds.

There is an increasing amount of parrot behavior information available to veterinarians, the range of which extends from one end of the spectrum to the other. If there is no other way to judge the value of this information, let the welfare of the bird be the guide. A person can never go wrong suggesting positive methods over negative methods.

Conclusion

Parrots are beautiful, entertaining, and treasured companions for millions of people. However, their natural inclinations occasionally conflict with their owners’ impression of what a perfect pet should be. A parrot’s tendency toward things like celebrating the sunrise with loud obnoxious screams, or customizing the furniture with their powerful beaks, requires extraordinary levels of compassion and restraint in their human caregivers. Even the best behaved parrots can challenge the patience of their owners.

Modifying parrot behavior is one of the grandest challenges of all for companion parrot owners. A person’s propensity to use aggression and force significantly hinders their ability to create enduring positive behavioral change in companion parrots. The scientific community has detailed the advantages of positive reinforcement over negative approaches when modifying behavior. These concepts, although still relatively new in the companion parrot community, hold the key to decreasing the frustrations and increasing the rewards of companion bird ownership.

References:

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