

Alternatives to Breaking Parrots:
Reducing Aggression and Fear through Learning

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There is irony in the practice of using force to reduce aggression and fear in companion parrots. Chances are human force was involved in producing the aggressive and fearful behaviors in the first place, at least from the bird's point of view. It reminds me of the equally ironic practice of slapping a child for hitting a sibling. While I can't be sure where these pervasive practices come from in our culture, I'm sure I know some of the reasons why they persist: First, force is a familiar strategy to many of us, having ourselves been forced to do things throughout our lives. It is our cultural legacy passed down from one generation to the next and often takes the form of seemingly benevolent reasoning such as "this hurts me more than it hurts you" or "a little pain for a lot of gain." Second, force works in the short run, some of the time. This short run and occasional effectiveness intermittently reinforces the user which makes it very likely that force will be used more often in the future. It is not uncommon to see such a chain of events result in a teacher or caregiver who unwittingly grows to rely on force to the exclusion of effective, non-forceful strategies.

Still, we've come a long way. Many cowboys would rather hang up their saddles than *break their horses*; puppies are often crate-trained rather than *housebroken with physical punishment*; and, instead of *breaking our children's spirits* or their bad habits we set them up to succeed and catch them being good. With the recent reduction of force where horses, dogs and children are concerned, what explains the recent acceptance of force by some to manage aggressive and fearful parrots?

Defining Force

Before answering the question posed above I turned to Webster's New World Dictionary to check my use of the word force. Force is defined as, "The use of physical power to overcome or restrain a person; physical coercion...coercion is to compel submission or obedience by the use of superior power, intimidation, threats, etc." Interestingly, one antonym for force is *persuasion*. Webster's definition of the word break is surprisingly relevant, as well: "...to tame or make obedient with or as with force; to force one's way through obstacles or resistance..." An antonym for break is *to mend*. Persuasive mending...sometimes Webster is so on the mark it's scary.

People who advocate using force to decrease aggression and fear are captured well by Webster's definitions. They force struggling, biting, screaming birds out of their cages, sometimes by grabbing one leg, and restrain the birds by wrapping them in towels or

swinging them off their hands until they submit to being handled. This is absolutely analogous to the old horse breaking practices of hobbling horses' feet, slickering or sacking them out, and tying heavy bags of flour to their backs.

The birds so treated are frequently passed around in foreign venues from one stranger's hand to another. Learned helplessness (discussed further below) and sheer physical exhaustion is often confused by trusting clients as their bird's magically newfound willingness to be touched and held. The effects of this treatment are most often short lasting and the birds subjected to this procedure typically return to their fearful and aggressive behaviors within a few hours or days. Remarkably, physical harm is sufficiently probable with this strategy that one such practitioner does not work without the presence of a veterinarian (Parrot Chronicles, Nov-Dec. 2002, at www.parrotchronicles.com/novdec2002/birdwhisperer.htm).

Far from a new or breakthrough strategy, the procedure of reducing unwanted behavior by physically preventing an animal from making a response has been well studied by behavior scientists (e.g. Page & Hall, 1953; Baum, 1966; Staub, 1968; Morgenstern 1973; Yule, et.al, 1974; Morris, et.al, 1983; and, James, 1986). The general term for this procedure is *response blocking*. With aggressive birds the response blocked by physical restraint is typically biting. When used specifically to reduce extreme fear this procedure is called *flooding*. With flooding the subject is presented with the highly feared object or situation which is not removed until the fear diminishes. The response that is prevented in this case is escape.

Most behavior scientists, teachers, and therapists agree response blocking of aggression or fear can not properly be called teaching. The outcome of teaching is learning and the process of learning new behaviors involves the learner's *choice* to behave in a certain way to access certain outcomes or not. Our job as effective teachers is to arrange the environment and the outcomes in such a way that our birds choose to do what we want them to do. Response blocking and flooding eliminate the element of choice entirely from the behavior-change process; and, although some behaviors may be reduced, no new behaviors are learned. The bird pulled out of his cage has not been taught to step up when requested and the caretaker who pulled him out of his cage has not been taught how to teach his/her bird to step up. For the same effort and less hardship, we could be teaching the bird to do these basic behaviors.

The Behaviors of Aggression and Fear

As parrot caregivers, we sometimes find ourselves squinting to read and interpret the subtle and not so subtle meanings of our birds' observable behavior. The behaviors of aggression and fear are overlapping and range from relatively mild (avoidance of hands) to extreme (severe biting). Fear itself can also be understood as a continuum from mild anxiety and agitation (darting eyes, crouching bodies and fanned tails) to extreme, seemingly irrational panic (shrieking, falling onto their backs, flailing feet). These are often the behaviors observed by caregivers who find themselves desperately seeking help for their parrot and themselves. And these caregivers are quite correct in assessing these behaviors as evidence of a crisis situation.

As is the case with all behavior, two processes are at work where aggression and fear are concerned, biology and learning. It is a bird's biology that produces the innate behaviors associated with fear such as rapid heart rate and increased blood pressure; however, experience is the best teacher of what to be fearful of in captivity. Of course it is also a parrot's biology, most notably in the form of powerful beaks, which accounts for their effectiveness as self-defenders but it is critical to understand that serious biting is not a species-typical defense reaction in parrots. Given the choice among freezing, fleeing and fighting, a wild parrot's first defense is to flee. It should be no surprise then, that aggression in parrots is often the predictable result of what we do and the conditions we provide in captivity. There is no question that biting is an adaptation which results from pushing our birds too far, too fast or too forcefully. The good news is that learned behaviors can be unlearned and replaced with more appropriate behaviors -- but only to the extent that we can effectively teach them. Any limitation and all the responsibility is ours as teachers. Still, you can count on your parrot's extraordinary ability to learn, that is, to change its behavior based on the experiences you provide. They, like all sentient creatures, are biologically prepared to find reinforcement in the environment and adapt their behavior to get it.

Back to the Question

What then, explains the increase in the use of force to manage aggressive or fearful parrots? I believe there are three explanations and it is worth noting that *not one of them has to do with a desire to cause harm* by the practitioners or their clients: They are (1) understandable desperation to the point of absolute despair felt by the caregivers of aggressive and fearful birds; (2) practitioners' and caregivers' lack of knowledge about the negative side-effects of forceful strategies; and (3) practitioners' and caregivers' lack of knowledge and skill with effective non-forceful strategies to replace their parrot's fear with confident, adaptive behaviors.

Unbeknownst to many companion parrot caregivers and practitioners alike, the natural science of behavior has, in the course of the last 60 years, produced a highly effective teaching technology called applied behavior analysis (ABA) of which operant conditioning is a part. Positive reinforcement is the crown jewel of this teaching technology as it can be applied in endlessly creative ways and is so effective as to make the use of force obsolete. Additionally, the science of behavior has also revealed the predictable and detrimental consequences of many aversive strategies for changing behavior including response blocking.

In my opinion, one of the greatest failures of behavior science in general has been the failure of behavior scientists to effectively disseminate their information to those who need it most, the teachers, parents and caretakers. Nowadays, with our unlimited ability to exchange information with one another, the responsibility to know and apply these fundamental principles of learning and behavior is shared among all of us. At the same time, we need to abandon debilitating practices and scrutinize unvalidated claims of expertise.

The Risks of Response Blocking

Response blocking is called flooding for a reason: When it doesn't work the animal sinks rather than swims. When it does work, flooding results in a rapid reduction in fearful behavior; however it is just as likely to result in overwhelming stress, anxiety, and lasting generalized aversion to the people present during the flooding episode and to elements in the environment at large. Flooding can result in such intense resistance that physical harm can occur to the birds and people. Additionally, there is considerable research that shows the long term detrimental effects of repeated exposure to uncontrollable aversive events with both animals and people (Mazur, 2002), as is the case with repeated flooding. Learned helplessness is one such dire outcome. Learned helplessness is the expectation that one's behavior has little or no effect on the environment. This expectation results from repeated exposure to uncontrollable aversive events without opportunity to escape. Research has shown that animals subjected to this condition often suffer a loss of motivation so that they do not even try to affect their environment *even when they can*. They give up easily and show significant deficits in learning and performance. Emotional problems are frequently observed as well, for example, rats developed ulcers; cats ate less; humans suffered increased blood pressure; and monkeys became ill (Maier and Seligman, 1976).

Another worry is the recent practice of demonstrating flooding on birds at bird club meetings. Aside from the blatant disrespect shown the already fearful animal by flooding it in such a casual setting, research suggests that short duration flooding sessions, as is the case at many bird club demonstrations, can *increase* fears (Staub, 1968; Yule, et.al., 1974) and very likely increases associated aggression as well. This may account for the frequently reported short-term effects of these demonstrations with birds.

I and many other behaviorists (e.g. Burch and Bailey, 1999; Morgenstern, 1973;), experienced bird trainers (personal communication, Martin, 2002, Morrow, 2002, Heidenreich, 2005) and bird caretakers believe that this procedure is not a humane method of dealing with aggression or fear, especially in light of the many validated positive alternatives. To better assess the ethics of this procedure, I challenge readers to think deeply for one minute about *your* greatest fear: Is it snakes? Spiders or rock ledges? The dark when you are alone? Bridges or tight spaces? Now, imagine being grabbed by your leg, wrapped tightly in a sheet and restrained in the presence of this feared stimulus or condition with no control and no possibility of escape. For some of you, if restrained long enough, this feeling of sweat-breaking, breath-robbing panic will extinguish. Now, answer this: Even in cases of apparent effectiveness, is efficacy the *only* criterion for selecting best practices with our companion parrots in light of more positive, less intrusive behavior-change strategies?

The Science of Alternatives

There are many alternative strategies to response blocking and flooding. Systematic desensitization is one highly effective and commonly used technique for reducing fears. With systematic desensitization, the bird is slowly presented with *tolerable* amounts or durations of the feared object or condition. The bird is never allowed to experience a high level of fear. When the bird shows comfort behaviors at one level on the fear hierarchy

(such as preening or shaking tail feathers) the bird is rewarded with praise or other reinforcers and the feared object is moved one bit closer to the bird or the bird moved closer to the feared condition. This gradual process is continued until the bird shows no fear whatsoever when presented with the feared object or situation. Done perceptively, systematic desensitization can be relatively quick and remarkably successful. It is a joyful process to see fear melt away to be replaced with resilience and confidence!

Another strategy for reducing fear is called targeting. With targeting the bird is taught through positive reinforcement to touch a designated object or part of an object such as the end of a chop stick. Once the bird has mastered targeting you can facilitate your bird moving out of his cage by following the target stick. You can also target the bird to move successively closer to someone's hand where he can be rewarded for increasing the duration of hand perching. Few strategies are more thrilling than the gentle process of shaping a bird to your hand by rewarding small steps toward the final destination. An additional benefit is that targeting allows you to keep the rate of reinforcement high which more quickly establishes you the caregiver as a reinforcer, as well. See <http://community-2.webtv.net/Lincomacaws/Tgt/> for a more complete explanation of targeting.

Another strategy called differential reinforcement of alternative behaviors is a highly effective approach for reducing aggressive behavior. Paired with a careful reading of your birds' body language to *avoid those bites*, differential reinforcement consists of rewarding the behaviors you want to see more while at the same time ignoring those unwanted behaviors. In this way, problem behaviors are decreased using positive reinforcement for appropriate alternative behaviors. For example, biting can be replaced with a vocalization to signal to you that your bird feels uncomfortable with what you are doing; lunging can be replaced with picking up a foot toy; and, charging can be replaced with going to a designated perch.

Teaching plans should always begin with the *most positive, least intrusive methods* available to us not only because they are highly effective but also because they are more humane. Simply: *Because we can*. In the great majority of cases, building trusting relationships gradually through the skilled application of positive reinforcement will get you to your goals with no risk of distress or harm. By teaching adaptive, desirable behaviors to your bird you will replace aggression and fear with competence and confidence. With each new behavior learned, teaching the next behavior will happen faster and more easily, as your bird learns to learn from you. Your bird's trust will grow in proportion to your skill as a teacher. Aversive procedures like response blocking threaten this outcome for you and your bird. The goal is to *empower not overpower* your bird.

In Closing

Over 60 years ago, B.F. Skinner coined the term operant conditioning to convey a type of learning with which individuals have power to "operate" on their environment to produce or avoid particular outcomes. He used this concept in contrast to classical or Pavlovian conditioning which focuses on behaviors that are not choice-driven but automatic like

salivating, eye blinks and goose bumps. The observations that all animals are *active participants in learning* and their *behavior is the result of intelligent choices based on outcomes* have stood the test of time and scientific inquiry. They are perhaps the most fundamental and important discoveries of the science of behavior, applicable to improving the lives of all creatures.

Response blocking and flooding have no place in our work with companion parrots because force is the one strategy which renders animals absolutely and indisputably choiceless. Such lack of control over one's environment has been shown to be associated with short term effects and long term learned helplessness. No new behaviors are learned because in fact none are taught.

Far from a breakthrough procedure or show of skill, response blocking or flooding to gain a parrot's submissiveness is nothing short of parrot breaking. The use of this strategy is, sadly, an example of the prophetic phrase, "when everything old is new again." Those who use these strategies appear to be ignorant of both the dire side effects of response blocking and the highly effective, well validated alternative teaching strategies which make use of positive reinforcement. Although no harm may be intended by practitioners or their clients, the risk of harm is very real and totally unnecessary. This is ignorance our humanity cannot afford. Be neither drawn in by promises of quick fixes nor dazzled by showmanship; do not steal what is a bird's to give. As so plainly stated by Burch and Bailey (1999) in reference to dogs, "We owe it to them to treat them the same way we'd like to be treated." Do we owe parrots less?

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