Positive reinforcement boosts confidence for both bird and trainer.

by S.G. Friedman, Ph.D

his past year I had the pleasure of collaborating with well-known bird trainer Steve Martin, President of Natural Encounters Inc (NEI). Along with his impressive training and support staff we developed and taught a series of workshops designed to meet the unique needs of companion parrot caregivers. Our goal was exciting and ambitious: To unify the art and science of training to improve the quality of life for companion parrots and their care givers.

To meet this goal we targeted 10 care giver competencies (see side bar).

To my delight, at the first workshop, Team Leader Rob Bules asked me to train Sam, one bird of a bonded pair of 9-year-old, untamed, green-winged macaws. Needless to say, Rob didn't need to ask me twice! Our training target was the husbandry behavior of being weighed. This behavior will help NEI staff monitor Sam's health.

To meet this goal Sam needed to learn to do the following behaviors willingly

when requested:

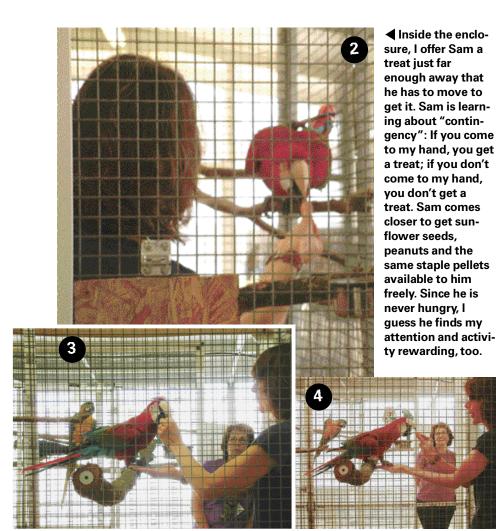
- 1) To step on and off my hand
- 2) to ride on my hand in and out of his enclosure
- 3) to step on and off the scale located outside his enclosure.

We accomplished our goal in 2½ hours of total training time with only two 20-minute sessions per day for four days. This was accomplished with a powerful, positive-reinforcement procedure for teaching new behaviors called shaping. With shaping the trainer shifts the criterion for reinforcement to closer and closer approximations (small improvements) toward the final behavior. Many of our own human behaviors are shaped. For example, standing upright is shaped into running, babbling is shaped into talking, and scribbling is shaped into writing.

This photo essay represents only the highlights of the many, many small steps and frequent repetitions that occurred for us to meet our goal successfully, quickly and without force or coercion of any kind. I'd like to thank participant Lisa de Guzman Catlett of AERAS for photographing my training sessions.

■ Sam's behavior tells me where to start. I offer him a sunflower seed from outside the cage, and he quickly climbs to get it so we start there. It's our first instance of two-way communication: I offer a seed, and he accepts. Sam is always empowered to make a choice. Since he's so comfortable taking food from my hand, we move to the next step.





▲ After reinforcing Sam for allowing my right hand to come closer — inch, by inch — I try resting it on his perch. He lunges, so I immediately remove my hand to empower this clear communication of discomfort. On the third try, Sam takes the treat, with his foot leaning against the edge of my hand. He has learned that he has power to remove my hands, so I suppose he has no further need to do so.

▲ Sam moves one foot onto my hand to get a pellet (in spite of the fact that free pellets are all over the floor). I resist the urge to raise my hand to get him to lift his other foot and instead try to remain absolutely motionless. Soon Sam chooses to eat his treats with his foot on my hand. I interpret this as increased trust and readiness to move on to the big time.

10 Competencies For Companion Parrot Caregivers

- Understand companion parrot behavior by considering its general function in the wild.
- Understand companion parrot behavior by analyzing its specific function in the home.
- Sensitively observe, interpret and respond to parrots' body language.
- Empower parrots to make choices and have control over their own outcomes without lowering standards of acceptable behavior.
- 5) Arrange the physical environment to increase the probability of successful behavior.
 - 6) Deliver high rates of positive reinforce-

ment for desired behaviors with good timing and clear criteria.

- Achieve training targets by effectively shaping small, sequenced steps toward the final behavior.
- 8) Design interventions to solve problem behaviors such as biting, excessive screaming and over-bonding using the most positive, leastintrusive training methods.
- 9) Understand the detrimental side effects of aversive behavior-change procedures, and use them rarely.
- 10) Improve critical thinking skills to better evaluate the appropriateness of popular approaches to parrot behavior management.





▲ I raise the criterion for reinforcement from one foot to both feet on my hand by moving the treat further away, thus requiring Sam to stretch a bit more to get it. I keep my hand rock solid as Sam cautiously edges onto it, but his body language conveys discomfort. He crouches, clenches his toes, tightens his feathers and maintains a fixed stare.



■ Now that he's feeling more secure, I slowly move Sam away from the perch, inch by inch. I offer Sam a very high rate of reinforcement to match the difficulty of this behavior. At about 12 inches from the perch, he holds his wings slightly away from his body, as if preparing for flight. I decide to call it quits for the day. The hardest part of training is stopping while you're ahead.



▲ I work with Sam to the point that we cross into the main training area. After a happy moment, I observe Sam's low stance and uneasy eyes. He's edging down my arm, and I'm concerned he may bite me. I hold him further away from my body. We both lack confidence. He has too little experience perched on a hand in a busy room; I have too much experience with companion parrots that have learned nothing short of biting gets results.



▲ Rather than ask for more than Sam can comfortably give at this time, I lead him back to his perch, where he will be more at ease. We practice stepping on and off my hand until his body language is relaxed and his confidence boosted. I'm following the NEI mantra: Repetition builds confidence and breaks down barriers.



▲ I review my plan to cross the threshold today, but check my determination at the door. I control the reinforcers, but Sam controls the pace. Starting where we left off, I offer Sam a treat, and he quickly comes over to get it. I offer my hand, and he steps up without hesitation. After a few fast repetitions on and off my hand, we're ready to boldly go where no Sam has gone before!



■ The best cure for discomfort is control, and so it's back to the perch for a confidence booster. We practice stepping up, crossing the threshold and taking a few steps into the main area. Sam shows his growing comfort, with his feet firmly planted on my hand, tall stance and relaxed feathers. This is what we need to see before moving on, so I reinforce this body language with a treat and lots of praise.



■ Today the goal is stepping onto the scale, so I ask Steve Martin to help arrange the environment for success. The first thing Steve does is survey the cart. He turns it long way out and puts something under a wheel so it won't roll. Next he moves the scale from the center of the cart to the edge so Sam can step freely without bumping his tail. Finally Steve models a way for me to lower Sam securely.

▶ Sam readily comes out of his enclosure, and we stand by the scale. His body language tells all. Rather than going all the way back to the cage for a power booster, I test the effect of heading just a few feet in that direction. A few repetitions back and forth build his confidence, and he relaxes his stance.





▲ After taking treats off the scale, Sam puts one foot on it. I keep my hand close just in case he wants to step back, but I can see from this photo that it's too close to the block, and I recall tipping him onto it. I need to position my hand an inch or two away from the block to allow Sam to make a clear choice to step onto it or not.



▲ Sam puts both feet onto the scale. I don't think I've ever seen a lovelier number than 1,377 grams. We now have a baseline weight to better manage his care. Had Sam chosen not to step on the scale, I would have simply changed my strategy. I could arrange the environment to make the right behavior easier; increase the value of the reinforcer; reinforce smaller approximations; or provide more repetitions.







■ Sam is uneasy on the scale. He's glancing back at the cage, raising and lowering his body, and tipping his wings as if he's preparing to fly. I offer my hand in front of him, but it's too close to his body to lend itself toward stepping up. I correct my mistake, and he steps onto my hand. But he's lost confidence, triggering his instinct to go up, so I duck fast to avert a bite.



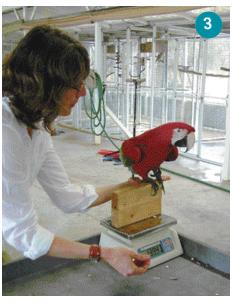
▲ Fortunately, that morning we generalized Sam's Step-up behavior to Lisa De Guzman Catlett, who calmly returned him to his cage. It was at that moment I experienced an epiphany: Given his long history of positive-only experiences at NEI, Sam had never learned that biting was a way to get out of a jam. It was not a default behavior for him, and he wouldn't bite me if I continued to use facilitation instead of force.



▲ I offer Sam an opportunity to return to his perch at the end of the day, and he surprises me by choosing to stay on my hand instead! I am happy to spend a few more minutes together reflecting on all we've achieved with positive reinforcement, choice and empowerment.



■ Totally confident that three days of positive reinforcement training would overcome yesterday's excitement, I plan on practicing the complete behavior chain from cage to scale and back again. Sam hops onto my hand enthusiastically and stands comfortably next to the scale as expected. I keep my elbow close to my side, and Sam closer to my face, providing a more stable perch and relaxed atmosphere.



Four Months Later ...

I returned to the ranch for the next workshop. No one had worked with Sam since I left. I laid my hand on the perch, and Sam stepped onto my hand. With the help of trainers Wouter Stellaard and Cassie Malina, Sam practiced stepping from hand to hand outside his enclosure. Such is the confidence of an empowered learner and the longevity of behavior acquired through positive reinforcement.



Sam reaches his left foot back to find my hand and leave the way he came. It will take no time at all to teach him to step forward off the scale. With behavior programs, we can only guess what will work best with an individual. Every bird is a Study of One, with its own ing opportunity for both of us. It is unique genetic and learning histories. The bird's behavior ultimately provides vide each other that has built a the data about the extent to which we have met our goals.

▲ Sam steps onto the scale as if he's been doing it his whole life. This time I remember to keep my hand rock solid behind him just in case he chooses to step off. Every interaction between us is a learnthe positive consequences we protrusting relationship.

S.G. Friedman, Ph.D., is a psychology professor at Utah State University. Her area of expertise is learning and behavior with a special emphasis on children's behav ior disorders. Susan also works with companion parrot caretakers, animal trainers, veterinarians, and zoo staff to apply to animals the same humane, scientifically sound teaching strategies that have been so effective with human leamers, called Applied Behavior Analysis. The guiding principle of this approach is a hierarchy of teaching interventions starting with the most positive, least intrusive, effective behavior solutions.

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