

The S Files

Success with Lee: Rockx: Loud Repetitive Vocalizations

Reported by L. McGuire and S.G. Friedman, PhD

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The S Files are real case studies of behavior challenges faced by companion parrots that were successfully resolved using systematic change strategies, without force or coercion. In all cases, the interventionists are the parrots' actual caregivers. Many of the caregivers have little or no prior experience applying the teaching technology of applied behavior analysis but all of them have a strong commitment to changing behavior with the most positive, least intrusive effective strategies.

The S Files are not behavior-change recipes. Train-by-numbers approaches often fail because every bird is a *study of one* and every relationship and setting is unique. However, the steps used in these case studies can provide the scaffolding to better understand, predict, and change behavior with your own parrots or those with whom you work. Appreciation and admiration is extended to the many caregivers described in the S Files for their willingness to share their dedication and behavior programs here. This S file describes a recent intervention implemented by one of the authors' own birds.

MEET:

Lee McGuire: Caregiver

Rockx: Approximately 13 year old, Moluccan Cockatoo

RELEVANT BACKGROUND:

In July of 2006, Rockx's previous caregiver arrived at the difficult decision to find Rockx a new home in order to provide a better quality of life. Rockx arrived in my home carrying with him a behavioral history that had worked for him in the past. Included in his past behavioral repertoire were excessive and sustained vocalizations; general apathy (inactivity); biting male family members; feather destructive behavior; repetitive circling on his perch ending with a loud vocalization plus a 30-45 second delay (latency) before he would step-up. Rockx is fully wing-feathered but he does not fly. In his former home he was a single bird housed either alone in a bird room or on a stand in the living room. He now lives with three other parrots, two dogs and a cat.

I. TARGET BEHAVIOR -- What is the one problem behavior you want to change? Describe it in unambiguous, *observable* terms.

Rockx vocalizes loudly and repeatedly during the day and at bedtime. At the most, one, sometimes two, seconds elapse between loud calls. This behavior can last anywhere from

1 minute to 30 minutes. Rockx also exhibits repetitive circling behavior on any perch. He will circle in one spot 2 ½ times. Just before he puts his right foot down to complete the third circle, he emits a loud screech. Without intervention, this behavior can last for up to an hour.

II. ANTECEDENTS -- What events or conditions immediately precede the behavior that may set it off? Specifically, consider the following possibilities:

GENERAL: Rockx is left alone.

A. WHEN is the problem behavior most likely to occur?

1. When Rockx has had no caregiver contact for more than one hour and is not actively engaged in playing with toys, foraging for a portion of his daily food intake, preening or napping.
2. With the exception of paper and wooden toys, when new events or situations occur.
 1. When put to bed at night.
 2. When the doorbell rings.
 3. When one of the other parrots flies “over” rather than flies “by” where Rockx is perched.
 4. When Rockx sights any outside bird no matter the size or airplane in the sky.

B. WHERE does the problem behavior occur?

In any location when there has been little direct caregiver attention or interaction for variable times or when one of the three parrots flies over his head. When outdoors, if wild birds or high flying planes that pass overhead Rockx screeches loudly.

C. WHO is present when the problem behavior occurs (people and pets)?

The vocalizations occur when I or other family members are present including my brother, two dogs, a cat and 3 other parrots.

D. When is the parrot most successful, that is, when doesn't the problem behavior occur?

When Rockx is receiving direct caregiver attention, chewing up wooden blocks, shredding paper, investigating the cage or play tree, preening or napping.

F. How might the behavior relate to behavior in the wild?

In the wild, the vocalizations may serve communication purposes including contact calls with mates or peers, general alarm calls or attraction of mates.

III. CONSEQUENCES - What is the purpose or “payoff” for engaging in the behavior?

A. Positive reinforcers gained:

Social: Petting and interaction with caregiver

Item or Activity: Proximity to Lee.

Sensory Feedback: Automatic sensory reinforcement for vocalizing and petting received from caregiver.

B. Negative reinforcers removed, escaped or avoided:

Social: Avoids being alone

IV. SUMMARY - FUNCTIONAL ASSESSMENT OF THE INITIAL PROBLEM BEHAVIORS:

A: Background: Rockx has been left alone for a period of time

Antecedent (A): One hour of no attention; not engaged in an activity

Behavior (B): Rockx vocalizes loudly

Consequence (C): Lee provides attention

Prediction of future behavior if nothing changes: Rockx will continue to vocalize to get Lee’s attention.

B: Background: Lee is in the room the same room as Rockx.

Antecedent (A): One hour of no attention; not engaged in an activity

Behavior (B): Rockx circles 2 ½ times then screeches

Consequence (C): Lee provides attention

Prediction of future behavior if nothing changes: Rockx will continue to screech

V. REPLACEMENT BEHAVIOR - What alternate behavior(s) would meet the same function for the parrot? What behavior(s) do you ultimately want the parrot to do?

Pleasant vocalizations can both meet the function that screaming and circling serves and is the ultimate desired behavior.

I. PRELIMINARY STRATEGIES - How can you adjust the environment, including what you do, so that the behavior doesn't occur in the first place? What behavior can you teach or re-teach so the parrot can successfully demonstrate the replacement behavior?

Antecedent Changes to Pre-empt the Behavior	Consequence Changes to Reinforce Alternate Behaviors	New Skills and Teaching Strategies
<p>Rockx is included as part of the family and has the opportunity to interact with both humans and other parrots throughout the day.</p> <p>on a schedule so that he will learn when Lee's direct attention is available, when it's not, as well as when it's time to go to sleep.</p> <p>a song to him just prior to bedtime.</p> <p>opportunities to the cage increasing the complexity as each one is mastered.</p> <p>configurations to increase the probability of successful toy and foraging opportunities.</p> <p>gets through the use of targeting, flapping exercises, climbing ropes/ apparatus and running games.</p> <p>that Rockx can observe activities but is not close enough to be alarmed by any of the activities but close enough that he can observe all the action and choose where or not to join in the activities. Move stands closer depending on safety and interest. Repeat in other rooms of the house.</p> <p>might observe the active 25 year old Mitred conure foraging, interacting with, and picking up, toys in the cage.</p>	<ul style="list-style-type: none"> · Reinforce each, and every, pleasant sound (talking, whistling, soft quiet vocalizations) that Rockx makes by providing immediate attention and by answering contact calls. · Reinforce longer durations of toy playing, foraging activities and independent play with a moment or two of direct attention. · Throughout the day, provide a few seconds of direct attention in the form of a few words or a quick pet while Rockx is engaged in any activity that does not involve loud vocalizations. · Leave the room with- drawing Lee's attention each time Rockx makes loud and repetitive vocalizations. Say "Goodbye" to mark problem vocalization followed immediately by withdrawal of my attention. 	<ul style="list-style-type: none"> · objects, and situations, in the home environment both inside and outside. · step-ups asked for ensuring that the outcome is not always a return to the cage, tree or being left alone. · ropes, and rope type activity centers to increase the overall amount of exercise he gets as well as increase the amount of positive reinforcement available. · "recall" which will provide increased running exercise and more reinforcement. · on cue, and slowly, over a period of time, fade offering the cue.

VII. PRINCIPLES, PROCEDURES AND OUTCOMES

After a few days of observation and data collection, I developed a systematic, multifaceted strategy to replace two of Rockx's problem behaviors - screaming and circling. While the change of homes was undoubtedly stressful to him, I made every effort to allow him the opportunity to make choices in his new surroundings always keeping a watchful eye on any body language he emitted. Any "escape" or "avoidance" movements that might indicate fear or discomfort were noted and the plan modified accordingly. In other words, I **systematically desensitized** Rockx to new rooms, movements, sounds and household objects by never going further than his comfort level, as evidenced by relaxed stance, eyes and feathers. Nearness to new toys, animals, play stands and trees were carefully shaped using tiny approximations of the final desired target behavior. Praise, petting, pine nuts and almonds were used as reinforcers.

Numerous **antecedent** changes were necessary for this intervention. One of the **setting events** for Rockx behavior that I altered was positioning the cage in a high traffic room where interaction with family members was assured. Rockx was put on an "attention schedule" that allowed him to learn when both ambient and direct attention would be available. That type of schedule allowed him to relax and engage in other activities at other times of the day, rather than anticipating unpredictable attention.

Another type of antecedent that I put to good use is known as an **Establishing Operation (EO)**. EOs change the relative value of the reinforcer that follows behavior either increasing or decreasing that reinforcer's strength. In this case, I took Rockx on a walkabout providing lots of direct attention prior to bedtime. This strategy allowed Rockx to fill up on my attention prior to going to bed thereby reducing the likelihood of vocalizing for more attention.

As can be seen from the Functional Assessment in Part IV, caregiver attention maintained the excessive vocalizations. In the morning, late afternoon and evening, I would spend about 10-15 minutes teaching Rockx new, or reviewing old, behaviors such as recall, climbing, targeting, wings out, turnaround, step-up. The effect on Rockx was twofold. He would be getting more caregiver attention plus receive greater amounts of positive reinforcement for learning new behaviors or performing old ones better. As well, a fresh daily supply of wooden, and paper, chewables were made readily accessible. As Rockx activity increased, I very slowly shaped moving more and working longer in order to engage interactively with the toys. This helped Rockx build up some stamina in preparation for activities such a rope climbing and running.

You may be asking yourself why exercise would be a component of any plan that purports to reduce excessive vocalizations. A bird that is tired from exercise is less likely to engage in maladaptive behavior such as excessive vocalizations. Additionally, the exercise itself can become an intrinsic positive reinforcer.

Positioning Rockx cage next to an active 25 year old Mitred conure who makes good use to the entire cage, inside and out, allowed **observational learning** to take place. Rockx was observed carefully watching the conure removing and interacting with toys from the toy basket on the floor of his cage and then copying the behavior.

I further used two types of Differential Reinforcement to change Rockx' behavior. **Differential Reinforcement of Incompatible (DRI)** behavior was used to rapidly reduce excessive vocalizations. The principle behind DRI is that Rockx can't loudly vocalize and talk, whistle or speak softly at the same time. When Rockx receives more attention from me, a positive reinforcer for him, for the less "noisy" behaviors those sorts of vocalizations will occur more often as they require less effort than loud sustained screeches along with garnering the attention reinforcer he was seeking. I also implemented a **Differential Reinforcement of Alternative (DRA)** strategy for interacting with foraging toys and shredding. Rockx can still loudly vocalize while chewing and foraging but if the reinforcement is sufficient - he will not. The key component was adding attention, his reinforcer of choice, in careful amounts and then fading the amount of attention as time past. I ensured that Rockx initially had easy access to chewing and foraging opportunities and then slowly increased the duration and complexity necessary to obtain the reinforcer.

Finally, I used **time out from positive reinforcement (TO)** by standing up and leaving the room whenever Rockx began to vocalize. Attempting to remove the bird may have inadvertently reinforce his screaming. **TO** is the temporary withdrawal of access to reinforcement to decrease the behavior that it immediately follows. It is a mild form of punishment (behavior decreasing procedure) in the scientific terminology of Applied Behavioral Analysis. I improved the immediacy with which I delivered the TO by marking the problem vocalizations with the word "Goodbye." After approximately 20 trials, Rockx would cease both circling and vocalizing as soon as I said "Goodbye" while I continued to follow through by leaving the room for a short time. Adding "Goodbye" quickly became a marker for Rockx that it was the loud, repetitive vocalizations that was causing my removal. He quickly learned the contingency: Screeching = goodbye = Lee leaves.

VIII. FOLLOW-UP

Within the first two weeks loud vocalizations dropped radically. Five months later, I am very pleased to report that Rockx no longer vocalizes loudly and repetitively throughout the day nor at bedtime. Rockx's contact call is a soft vocalization, a whistle or "Hi Rockx" and the circle/screech behavior has reduced to once every week or so. He is now playing and chewing more as well as becoming more confident, resilient and investigative as each day passes.