



The Parrot Enrichment Activity Book

Version 2.0

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FORWARD

Dear Reader,

Susan G. Friedman, Ph.D. has built a tremendous network of knowledgeable people who volunteer as teaching assistants for the Living and Learning with Parrots (LLP) course. Their commitment to help others learn the principles of Applied Behavior Analysis (ABA) is remarkable. The philosophy of behavior in this course is that parrots, like all learners, must have power to operate positively on their environment to live behaviorally healthy lives. We facilitate this power when we interact with them in such a way that they choose to do what is required for lasting companionship in our homes.

A natural science perspective guides the information presented in LLP. Students are encouraged to focus on observable behavior and the environmental elements that support it. The lectures rely heavily on the findings of many decades of scientific study of behavior across many different species of learners as personal recipe knowledge is not the only psychology we need to provide a high quality of life to our parrots.

Associated with LLP is the Parrot Behavior Analysis Solutions (PBAS) list serve group. It is an open list where LLP students as well as others who have not taken LLP can work on behavior solutions together. Helping in this group are PBAS list serve thread leaders who volunteer to work with and teach parrot owners how to improve their ABA skills to prevent and solve behavior problems with their companion parrots.

Susan, her LLP teaching assistants and PBAS list serve thread leaders are all very generous with sharing their time, knowledge and experience to help all of us improve the lives of our parrots by teaching us how to empower rather than overpower our birds.

I am forever grateful to Dr. Susan G. Friedman; her LLP teaching partner, Lee McGuire; the LLP teaching assistants and PBAS list serve thread leaders. The basic scientific knowledge about learning and behavior I've obtained from them sets me up to succeed at keeping parrots in my home. Each and every one of them inspires me to learn more about behavior science and living and learning with parrots.

In that same spirit of volunteerism, and with Susan's help, I'd like to share with you a few more environmental enrichment strategies that may benefit you and your parrots. I hope most of you are familiar with *The Parrot Enrichment Activity Book, Version 1.0*. Susan helped achieve our goal of rapid widespread circulation of that book by disseminating it through her students worldwide. I'm counting on her to help distribute this second book in much the same way.

I am delighted for this opportunity to give *The Parrot Enrichment Activity Book, Version 2.0* to Susan G. Friedman, Ph.D. Once again I am grateful to her for providing me the means and the occasion to share it with you all.

Thank you, Susan, for all you do!

Sincerely,
Kris Porter

For more information on LLP, PBAS and where to find Susan's articles please visit <http://www.behaviorworks.org/>.

INTRODUCTION

They say a picture is worth a thousand words. I am hopeful the photos of parrots engaged in active behaviors will be a source of inspiration to parrot owners looking for ways to enrich their bird's environment. With this book I plan to use photos to give you more ideas to help you provide your parrots with foraging opportunities, toys and activities for inside and outside the cage.

And I have help! On the following pages you will find articles, ideas and photos from a number of marvelously creative people all dedicated to enriching the environments of their parrots. And most importantly, they are more than happy to share these ideas with us all.

Everything you see on the next pages will be an idea that has been tried by one or more parrot owners. Some of them will be new to you and some will be toys or activities you have already incorporated into your collection of enrichment ideas. For every store bought toy or toy part referenced in this book; I have listed a supplier in the Resources section on pages 91 and 92.

When reading this book please keep parrot safety in mind. Not every idea presented here is appropriately safe for every parrot. For example, I use relatively small beads to hang on toys for my larger parrots as that is what they seem to prefer. I've watched them carefully and I'm confident they will not ingest the small bead. But for someone else's parrot, he might. Know what is safe for your parrot. Just because something is okay to give to my parrot it doesn't mean it will work for yours.

I'm sure you've heard this before, but once more for the record, *no parrot toy is 100% safe*. Please observe your parrot playing with every new type of toy you introduce to his environment before you leave him alone with it. Most of the internet sites that sell parrot toys have sections on safety tips and information on picking the right size toys. It is worth your time to click on those pages and read the information provided. There is no need to be paranoid or overly suspicious of every toy, just be knowledgeable and careful, and use good sense.

It is with enthusiasm and a great deal of gratitude to *all who helped*, that I am thrilled for the opportunity to work on this project. I hope you find the following pages an enjoyable and enlightening read and that this book will be a source of inspiration and encouragement for you.

Kris Porter

Please note: If you are not familiar with The Parrot Enrichment Activity Book, Version 1.0, (PEAB V1.0) you can Google "The Parrot Enrichment Activity Book" or follow one of these web links below to download your free copy:

<http://www.alaskabirdclub.org/>

<http://www.calgaryparrotclub.ca/files.html>

<http://www.companionfids.com/>

<http://onafricanwings.com/>

<http://www.parrots.org/index.php/referencelibrary/behaviourandenviroenrich/>

1

ENRICHMENT

“There has been very little research on behavioral aspects of parrot welfare and of effective environmental enrichment. In the following sections, we therefore discuss some experimental evidence derived from studies conducted at our Orange-winged Amazon Parrot colony at the University of California Davis, that suggests that enriching three aspects of the captive environment can have significant positive effects on parrot welfare. The three forms of enrichment tested in the studies outlined are providing foraging opportunity, increasing the physical complexity of the cage, and allowing for social contact. The foraging enrichments we utilized required the parrots to perform behaviors such as chewing through barriers, sorting through inedible material, maneuvering objects through holes, or opening containers in order to access the food items. Physical enrichments provided alternate perching sites, climbing or swinging opportunities, or movable objects that could be manipulated with the beak and/or feet. In the cases where social enrichment was utilized, some parrots were housed in same-sex, same-age, non-related pairs, while others were singly housed. We found that these three forms of enrichment successfully prevented and reversed the performance of several common abnormal or undesirable behaviors and, as such, improved the welfare of the parrots involved. The behaviors studied were psychogenic feather picking, fearfulness, aggression toward human handlers, stereotypic behavior, and screaming.”¹

The more I research the subject, the more I realize that I know very little of the scientific principles on environmental enrichment as it relates to companion parrots. I do believe I have a responsibility to improve the quality of their lives with as many varied forms of enrichment I can think of and accomplish in the captive environment of my home.

For me that means providing them with foraging opportunities; different play areas set up in more than one room in the house; occasions to go out of doors for fresh air, weather permitting; toys and training sessions.

Do I think I’ve achieved this and provided an environment full of enrichment? Not by a long shot, but I owe it to them to keep trying and to keep learning.



*We could consider the roll of toilet paper a type of enrichment for Galaxy.
Photo Credit: Teresa Schnurr*

¹*The Manual of Parrot Behavior* by Andrew U. Luescher (2006 Blackwell Publishing), chapter 27, *Captive Parrot Welfare* by Cheryl Meehan and Joy Mench, pg. 306,307;

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Enrichment? What do we mean?

By Gay Noeth

I've found myself very interested in the idea of food management, training, foraging and enrichment in the last little while. I've been reading and trying to come to terms in my mind about what all this means and how they might all relate to each other and to our birds. It seems that by the definition of enrichment, they all fit together to help form the bigger picture.

So what does enrichment mean? From the website <http://www.kerwoodwolf.com/enrichp3.htm> they state there are two categories of enrichment. "**Animal enrichment** is defined as activities and tasks provided directly to the animals, for example, foraging for food, exploring a scent, solving a puzzle to obtain some sort of reward. **Environmental enrichment** is any change produced within the animals' environment which (a) Simulates the wild or is otherwise interesting in some way or is conducive to the animals' ongoing comfort and physical and/or mental stimulation, and, (b) Facilitates the animals in exhibiting both species-specific behaviors and also, facilitates them in the completion of tasks and activities provided them as part of the animal enrichment program."

With that in mind, what would be the natural behaviors of a bird in the wild? What are the main concerns that occupy their days? I think it comes down to a few basic things. Finding food, finding safe roosting spots and territory, finding mates and nest sites. These would be the basics to survival.

Each of these things, we look after for them in our homes. We generally put food in a dish right beside their perch, we keep them safe and we offer them a mate (when desired). In other words, we have taken most of their normal days away from them.

This is where the enrichment starts to figure in. Since we have taken away the greatest concerns of their wild counterparts, what do we do to fill their time, fulfill their species-specific behaviors, keep them mentally stimulated?

My reading tells me that birds evolved to forage for their food. Recently, I took my thoughts a bit farther and decided I would see what happened if I used foraging to add enrichment.

I've often given my birds clean branches in the past so they could rip and shred the leaves but on this occasion, I took it a step farther. I made Foraging Branches. I used raffia to tie individual peanuts to the branches. I made up little cups of veggies to hang. I tied some carrots and hung them. I cut some zucchini into large pieces and then inserted grape pieces into the flesh. When all was done, I fastened the branches to a hanging stand that three birds (Goffin, Meyers, Red Bellied) had free access to.



Once I had all the branches up I just sat back and watched (and took pictures) to see what the birds would think. Oh, it's important to tell that since I've had the Goffin, he hasn't ever had branches. Actually, he is a quiet, relatively inactive Goffin. Also my birds haven't actually foraged for their food. I had recently made some little foraging surprises and hidden them in toy bowls when I went away for a week but on my return, two of the four birds that had the toy bowls with foraging treats hadn't found them. This also was for a toy, not actually to get their food. I decided I would have to take smaller steps when adding the foraging treats to toy bowls or teach them about foraging first. These branches were for the purpose of beginning that process since several things were just hanging in sight and not wrapped or hidden.

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Within moments, the Meyers and Red Bellied were both on the branches getting peanuts. Not that astounding a thing as they are very used to branches and I knew wouldn't be intimidated by them. The Goffin though, did surprise me. As mentioned, he'd never had branches since he had been here and from what I know of his previous history, branches were never there either. While it did take him a few moments longer than the other two, that could possibly be because I was within his comfort range of proximity. After looking for a few moments though he hopped onto those branches and what was most surprising to me, went straight for a little cup hanging down, pulled that raffia up, got the cup and began eating the veggies.



I continued to watch. The foraging opportunities were embraced in full, especially by the Red Bellied, but all three birds were enjoying themselves. No position was too difficult. No food was too hard to get at.



Even after all the food treats were gone, the foraging and playing continued with the branches and leaves.

I was so amazed at how readily they all foraged for the food. No learning had to take place. It seemed so natural. This was such an enjoyable activity for them, why haven't I done it before? Why don't I do it more often? This reflection made me think even more about enrichment. Previously, I thought I kept my bird's environment fairly enriched, with a variety of toys, a variety of different perches and play areas but when looking at this, I saw how flawed my thinking was.

The following day I made another foraging tree for these same birds. This time I made it a little different. Green beans, orange segments, grapes, apple slices and carrots were skewered to different branches. I also hung some broccoli and again, a few little cups of mixed veggies. The reaction was the same. All three birds were excited to get the tidbits, regardless of how they had to stretch or hang to get them. It was interesting to watch them snip leaves off to clear the way to the treat. In some instances, you could almost see them deciding the best way to get to an item.



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While toys and a variety of stands are a good start, I think we need to go farther. We tend to make these things static. We leave the toys in the same place for days. The play areas remain in the same location probably with many of the same things on them. When I reflect on their natural curiosity to the foraging branches, I realize that for the toys and the stands to be considered enrichment on a day-to-day basis things need to change. Enrichment needs to encompass their life, not just a moment in time. I think we need to learn to make each moment, each segment of time, enriching and yes, to me, this includes foraging.

So what can we do? How can we make their lives in captivity more rewarding, more challenging, more ENRICHING? I believe some things can be easy. Move those toys around each day, putting them at a different height, different location. Make some simple food foraging items. I'm going to make a play stand cage top into a sand foraging area on occasion. Hang some of their food in different areas. Make them need to climb and reach for those food items. Hide toys and food in out of the way spots. Let them watch at first if you aren't sure they know the idea. Redecorate those play stands. Even moving things a little is a change. Hiding things in different containers is a change.

Do some training. No matter how simple, the learning is enriching their lives. They appear to thrive when their minds are challenged. We own these intelligent animals, and too often, proceed to let them stagnate. Let's see if we can all start thinking a little outside our boxes we have made. I'm quite sure our birds will be happier, more content if we can begin to do this.

Gay Noeth lives with her husband and animals (birds, goats, rabbits and a dog) near Paradise Hill Saskatchewan, Canada. They have been living with birds for the last twelve years and have a small, home based aviary, On African Wings. While they previously raised Congo African Greys, Timneh African Greys, and three of the Poicephalus family; Senegal, Meyers and Red Bellied, they are currently breeding only the Congo African Greys. Gay has been very interested in the behavioral aspects of birds for the last several years, attending different seminars and workshops to learn more. Gay is constantly trying to better the lives of her personal pets, plus learn how to help others better live with their companion parrots by volunteering her time as a PBAS list serve thread leader. Gay also maintains a website (onafricanwings.com) filled with information on bird care, behavior and enrichment.

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Our small parrots are all adopted and came into our home as recently as December of 2006. First to come were Tiny, a female Budgerigar (Budgie), and Boo, a male Cockatiel. In April of 2007, we found a female Cockatiel outside in a tree. We were able to coax her down and when we didn't receive a reply to our "found bird" advertisements, we adopted her and named her Gracie.

All I knew about Budgies and Cockatiels at the time was, they liked mirrors. The challenge for me was to figure out what I could do to provide them with opportunities for more stimulating activities. I got on the internet and looked for small bird toys and ordered a few to start with. Then I set about observing them and paying close attention to what appeared to be their individual motivators.

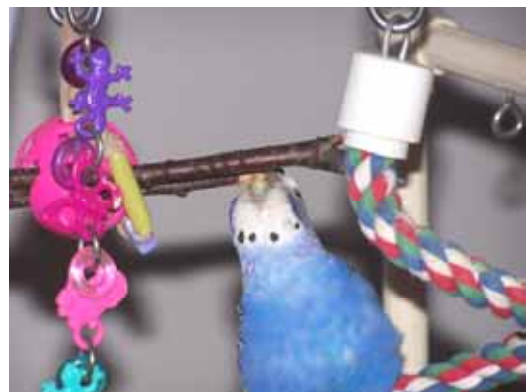
Though Gracie had a variety of toys in her cage, she seemed to spend more time chewing on the natural wood perch I had made out of a small bird safe tree branch.

That observation prompted me to try adding some small branches to the chains and toys on their play stand. At first, they didn't chew on the branches at all, but I decided to leave them in place for a few days and see what happened.



Gracie

It was three or four days before I saw any one of the birds start chewing on the twigs. But as you can see in these photos, patience and persistence paid off.



Tiny



Boo

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*Ruby and Zeus on the tree Leanna Rein built.
Photo credit: Lin Westgard*

Another way you can use natural branches to provide enrichment is to make play stands or indoor trees. Most birds love time out on a play stand and natural wood branches offer them a place to perch with varying textures and diameters.

Leanna Rein, current President of The Alaska Bird Club, built this tree for her parrots. She starts with a large birch tree branch as the trunk and then attaches perches. The base is a Christmas tree holder or a bucket filled with cement. If you decide to build one, make sure your base is heavy enough to support your birds.

Detailed instructions for making a natural wood tree stand can be found in the “How To” section at www.alaskabirdclub.org.

Gay Noeth also has instructions for a “Home Made Parrot Tree” at <http://onafricanwings.com/makeatreestand.htm>.

Lin Westgard, a member of The Alaska Bird Club, took these photos of her living room. One entire end of the room is dedicated to day cages and play areas for the birds. Lin hung ropes from the ceiling to give the birds places to climb and swing from. She also has a large tree stand for them made out of natural branches.



Lin also shares a photo of her bathroom where she has smaller versions of natural wood tree stands. She made a place for them near the shower to create a spot for the birds.

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The StarBird “Get a Grip” provides a climbing and playing environment. It can be hung or draped and it’s configuration changed as often as you like. Your bird can climb, play, go in and out of the spaces and create their own games, all the while exercising their body and mind with the grid providing secure footing. In the following photos, Dr. Susan G. Friedman’s Umbrella Cockatoo, Blizzy, shows us an example of independent play enrichment on the “Get a Grip”.



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In April of 2007, I traveled to Scarborough, Ontario, Canada where I attended “Parrot Behavior & Learning: At Step Up and Beyond”, a seminar featuring Susan G. Friedman Ph.D. and Barbara Heidenreich. While there I met Lori Gibbons and she gave me some valuable toy making tips, some of which I will share with you in the chapter Toy Making 101. Right now I’d like to show you these photos Lori sent me of her bird room.



Opening this door, takes you into parrot play land. I like how Lori has this room set up with a large tree play stand and swings and boings hung from the ceiling to give her parrots lots of different places to perch or play.



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Previously in the PEAB V1.0, I shared photos of the aviary we built on our back porch. Having an aviary on the porch provides us all with many hours of shared enrichment. Here in Alaska, we appreciate any day the sun shines bright but a sunny day in summer is the best. Jerry and I will often sit out on the porch with the birds and soak in the sun while we watch them play. An advantage we have of living up here is the midnight sun which means we can sit outside late into the evening on a work day and are not limited to weekend afternoons. The disadvantage is, warm sunny days are often scarce in summer and our season is short. I will still take a parrot outdoors on a bright sunny day in winter when the temperature is above freezing. But that is limited to no more than a five minute experience, having only my arm to perch on as the play stands and hanging baskets are all stored away for the winter.

So I've tried to bring some of the outdoor aviary indoors to give my birds more play areas in different rooms of the house. The same hanging baskets that I have outdoors can be hung from the ceiling indoors.



In our bedroom I converted a corner by the window into a play area. Ditto is the most accomplished flyer in the house. I keep doors securely propped open when he is out and he will often fly off to one of the play areas in another room and play independently.

That is another reason I decided to create play areas all over the house. For the parrots who are good candidates for flight in the house, I needed to have places for them to fly to.

I added more hanging play areas off the kitchen.



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Finding room for one in the upstairs bathroom was tricky, but I fit one in. Since Ditto will often fly up here on his own, we're careful to leave the toilet lid down primarily for safety reasons.

But Ditto likes to drop toys out of his basket onto the floor below and that's another reason to get into the habit of always closing the lid.



I added a hanging play gym in the living room. I noticed in this picture the missing trim around the front door. I'd like to explain that the parrots did not destroy the trim. Jerry is in the middle of a home improvement project.

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Reading Ruth Fahrmeier’s article, “Plants and Parrots—a Personal Perspective”, has inspired me to want to add to the plants I have hanging in my house and incorporate them into some of the play areas. I have one large spider plant hanging between the two boings in the front window of the living room. I first put the plant there to create a buffer zone between Ditto and Buddy. It worked to help distract them from fighting or flying into the window and they also like to chew on the leaves of the plant.



Before parrots, a spider plant in this condition in my house would have disturbed me. Now I look at the plants as another form of enrichment and if the birds can occupy some of their time chewing on the leaves of not-toxic plants, then that’s a good thing.

Ruth Fahrmeier is an Education and Outreach coordinator for Phoenix Landing Foundation in Maryland.

I’m happy to have permission to include Ruth’s article, starting on the next page, where she shares her information on gardening for parrots.



*Lady Scarlet and Lord Grayson in Ruth’s screened in porch.
Photo credit: Ruth Fahrmeier*

Plants and Parrots – a Personal Perspective

By Ruth Fahrmeier

(As Prepared for Phoenix Landing Foundation www.phoenixlanding.org)



I am not a toxicologist or a professional horticulturist; just a long time gardener who has fallen in love with parrots. Over the last few years I have gathered information about plants and parrots. My search for ways to incorporate plants and gardening into the lives of my parrots is not finished, but I have reached a place where I feel that I have enough information to form some opinions and be comfortable allowing my parrots to play and chew on a number of plants. I would like to share the results of my search.

At the end are some web sites with extensive listings of toxic and safe plants and other related material. (With sincere thanks to all of the authors who contributed to my education!) These are just a few of the sites out there that I have found particularly helpful and reliable. Even so, you will see some differences among the lists. It is best to avoid any plant that is on the toxic side of any list, until you learn the reason why the plant is sometimes considered toxic and sometimes safe. Then, you can decide if your intended use of that plant will be safe for your feathered friends. *Note: A last minute “Google” search turned up a site that includes four plants I have considered safe on the “unsafe” list. They are indicated with an asterisk(*). For myself, I will continue to use these plants because of my personal experience and the fact that the lists I have learned to rely on consider them to be safe.*

But, *please*, after you read the materials, make your own decisions based on your individual parrots and how comfortable you are with the issues involved. This handout is a thumbnail sketch of some basic principles I have found and I hope it will be a helpful beginning for you.

Basic Principles are: The plant itself must not be toxic to parrots. The plant should be free of pesticides, especially systemic ones. Soil should not have chemical additives, such as slow release fertilizer, or be must be completely inaccessible to the parrot. Containers should be made of material that is not toxic to parrots or be out of reach. Location and placement of a plant is important for your parrot’s safety and the survival of the plant, unless you consider the plant disposable.

Safe Plants include some common and easily grown plants such as: spider plant, jade, corn plant*, dracaena*, pony tail palm, impatiens*, Swedish ivy, petunias, snap dragon, hibiscus*, and nasturtium. Some vegetables (kales, edible flowering cabbage) are attractive and nutritious.

Some plants are part safe and part dangerous. The leaves and stems of plants that produce safe and healthy fruits, such as the tomato and its relatives, mango, peaches, plums and cherries are toxic. Some plants that are not toxic can cause physical injury. Young citrus plants and bougainvilleas have sharp thorns. The thorns can be removed.

Accurate identification of a plant is important. Many plants have a variety of common names. So, check for the scientific name. You can “Google” to find plant identification sites or catalogues that show pictures.

Branches from woody plants, shrubs and trees make fun perches and stands. Lilac, butterfly bush, dogwood, birch, pine, poplar, and willows are excellent sources. Outside plants need special preparation to make sure bugs, bird droppings and other contaminants that may harm parrots have been removed. There are a number of approaches. (See references on pg. 15 and discussion at www.wellvet.com/disinfectantbird.html) Grapefruit seed extract (GSE), Oxyfresh Gele, and vinegar are recommended cleaning agents. Scrub, rinse, and dry. A note on pine: the sticky sap can mess up feathers, so peel the bark and let the branches age until they are no longer sticky.

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Pesticides can make a safe plant dangerous. You can grow plants from seed or take your own cuttings. When you buy plants, ask the nursery about the use of pesticides. Once you have healthy plants established, a good spray with water keeps many pests off. (Parrots can enjoy a shower at the same time, weather permitting.) In the summer when my plants go outside or on the porch, the good bug population (ladybugs and the like) take over the job. At your discretion, you may decide you need to use some of the natural insecticides based on garlic, hot peppers and the like. Make sure your parrot does not breathe the vapors if you spray your plants.



does not breathe the vapors if you spray your plants.

The soil in which plants grow can pose a danger. My personal choice is to use soil made of natural materials without chemical fertilizers. Identifying such soils and sources is not always easy. Ask and read labels carefully. Be aware that soils might be safe for mammals, but may contain materials that are not safe for parrots. There are recipes for making potting soil using peat moss or coconut fiber, perlite or vermiculite, and compost. I assume that ornamental plants have chemical fertilizer in the soil and buy very small plants, gently shake off the soil and repot in my preferred mixture.

Access to the soil can be limited in a number of ways, remembering that soil needs air to remain healthy. Well cleaned stones and rocks, a plastic mesh cover placed over the top of the soil are some ideas. Also, plant location (more later) can keep a parrot out of the dirt.

Mold and fungus are dangerous. Appropriately watered plants are not supposed to develop these diseases...but...things happen. One preventative is adding grapefruit seed extract to the water every so often. Water plants with a solution (10-15 drops GSE per gallon) every two or three weeks. If fungus or mold develops, remove the plant from any area in which the parrot will be or is a source of air it will breathe, and destroy or decontaminate the plant and soil.

Containers for plants, as with soil, should be made of material that is a “safe chew” or be inaccessible to the curious beak.

Location, location, location is important and will set the parameters, if not dictate, how you approach soil, container and other safety issues. Using plants in a parrot’s environment is a type of toy, so: Know your parrot! So far, my parrot gardening presumes supervision, except for a plant that is hung close enough to the cage so a stem or leaf, but not the container, can be nibbled at leisure. Lord Grayson can fly, but his main interest is hanging on his “boing” or sitting on the edge of a pot chewing flowers or greenery. Lady Scarlett would devour everything in reach, but cannot fly, so I position perches close to the plant parts that can tolerate her pruning. Sometimes though, she is so intent on some morsel just out of her reach that she falls in a pot. I rescue her, wash her off and put her back on the perch.



And the little guys can get right in the middle of things!



If you have a bird room or aviary where your parrots are out of their cages without your presence, incorporating plants is a bigger challenge. The principles are the same, but the precautions that need to be taken are much greater. If you have hanging plants, could the bird become tangled in the rope or

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wire? Do you plan to alternate plants to recover from serious pruning? One idea would be to put the plants in cages, with stems, branches and leaves extending out into the parrot's space.

If you have an outdoor aviary, butterfly bush, snowball (viburnum), pussy willow, forsythia or other parrot-safe vigorous bushes could be planted in the aviary. By mid-summer these shrubs always need pruning. Give your birds a job! Grape vines are fun and safe. Tropical plants, hibiscus and palms for example, can be set out in large pots for those in colder climates.

Last, but not least, have fun!



Lady Scarlett keeps jade trimmed.



Lord Grayson enjoys a petunia.



Lady S. reaches for a dracaena.

References and Resources

Lists of safe and toxic plants:

www.birdsnways.com/articles/plntsafe.htm
www.plannedparrothood.com/plants.html
www.petbirdbreeder.com/safeplants.htm
www.holisticbird.org/envir/plants.htm

www.birdsnways.com/articles/plntstox.htm
www.exoticbird.com/gillian/plants.html
www.petbirdbreeder.com/toxicplants.htm
www.avianweb.com/safefoods.html

Discussion of use of plants as well as identification of safe and harmful plants:

www.landofvos.com/eclectus.html (Kitchen Physician articles) exoticedibles.com

Branches and wood:

www.mdvaden.com/bird_page.shtml www.birdsafe.com/woods.htm www.exoticbird.com/gillian/perch.html

Common and scientific names:

envhort.ucdavis.edu/ce/king/PoisPlant/SAFE-COM.htm www.bonsai-bci.com/species/common_index.html
www.ansci.cornell.edu/plants/index.html

Discussion group of parrot, amphibian, reptile owners: groups.yahoo.com/group/ExoticPetsGardening

A wealth of information about sustainable agriculture, including information on soils: www.attra.ncat.org

Special thanks to Carolyn Swicegood (Land of Vos) and Denise Testa (Exotic Edibles)

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As I mentioned earlier, getting my parrots out of doors is on my list of ways to provide enrichment. I'm not alone in this endeavor. Several people share their photos and ideas for getting their parrots outside.

I met Janet Ineson at the seminar in Canada and her Greenwing Macaw, Simon. Janet brought Simon to the seminar to participate in a training demonstration with Barbara Heidenreich.

On the way to that day's event, my friend Carolyn Clark and I stopped off at a Tim Hortons for breakfast. Outside in the parking lot, there was Janet with Simon perched on a stroller. Janet was waiting for her friend to bring out coffee. I had to get a photo with me standing outside with them.

I watched, enthralled, as they headed off toward the Sisters Eatery Banquet Hall to participate in the day's event with Simon perched calmly on his stroller looking around.



*Danielle Cawthorne (left) Janet Ineson (center) and me with Simon on his customized stroller.
Photo credit: Carolyn Clark*



*A close up of Simon.
Photo credit: Carolyn Clark*

Janet said she often took Simon on outdoor walks with him perched on her arm. Simon is a large parrot and her arm would get tired so she came up with an idea for modifying this folding infant stroller with a perch for Simon.

Here's where I feel the need to reiterate, not every idea presented in this book is appropriately safe for every parrot. Simon is clipped and obviously Janet has worked with him so that he is very comfortable traveling around outside in this manner.

While I realize this method of transportation might not be suitable for a large majority of companion parrots—I love that it is possible for one.

By Permission of Phoenix Landing Foundation
The Phoenix Beak'n Fall 2007

CAJOLLERS (Cage + Stroller) A Creative Invention by Bobbie Kerns

You can make strollers for your birds using baby strollers and baby prams and normal wire travel carriers. These work well for taking walks with your birds or as a stand/table alternative if you're taking the birds visiting with you.

For the amazons we used a Baby Trend Snap-N-Go and both a Bird Hotel we had previously and a Petco or Petsmart (22" L x 13" W x 16" H) carrier.



For the macaws we used a Baby Trend twin/double Snap-N-Go with a (31" L x 21" W x 23-1/2" H) wire travel carrier.



For the medium size cage (24" L x 17" W x 20" H) we used an Emmaljunga baby pram

You can get strollers and prams from eBay, craigslist, or thrift stores.



You can use bungee cords to secure the cage on the stroller. It's a good idea to put a towel over at least a third of the cage to give them a sense of security.

Birds greatly benefit from fresh air and sunshine, both physically and mentally. If you can't have your birds in outdoor aviary upon occasion, here's a really creative alternative!

1 ENRICHMENT

I met so many truly energizing people at the seminar in Canada and Debbie Johnston is another. Debbie brought her Hyacinth Macaw, Jazz, to the training workshop. I was telling Debbie how impressed I was with Simon and his stroller. She told me she often took Jazz and her other Hyacinth Macaw, Indigo on walks at the beach.

Jazz and Indigo are 7-year old Hyacinth Macaws who love going for out walks – especially down to the beach. With constantly new sights and sounds to experience, this is their very favourite enrichment activity.

To make sure their adventures would be safe, it was important to do some preparation and training with them beforehand. The birds are clipped and trained to stay on Debbie's hands whenever they are out.

Their first outings were to very quiet places. As the birds became accustomed to the sights and sounds around them, she gradually took them to places that were busier and noisier.

Debbie explains that not all birds enjoy going outside. She and her husband share their home with eight parrots but only 4 of them enjoy going for walks (the others prefer to play inside). Always respect your parrot's preferences, so that play time – no matter where it takes place – is a pleasure for them.



Debbie's interest in conservation, combined with her broad background in education and experience in working with animals motivated her to author and deliver Bluebird Learning workshops (www.bluebirdlearning.com). She works with elementary school teachers and youth group leaders throughout the Greater Toronto Area to give children the unique opportunity to learn about nature and conservation right in their own classrooms.

In her "Introduction to Parrots" program Debbie takes Jazz, Dusty (a Moluccan Cockatoo) and Shorty (a White Bellied Caique) to visit schools. While this provides great learning for the kids, it also serves as an amazing form of enrichment for the birds. Debbie tells me that it's now reached the point that Dusty and Jazz know when she is getting all her teaching aids ready for a school visit, and they go nuts with excitement in the car when they are on their way to school. They absolutely love it!



Debbie Johnston with Dusty teaching children about parrots.

1 ENRICHMENT



Caroline Moore and Toby Davis live in Massachusetts with two adorable Caiques, Icarus and Daedalus. They often take both birds, in harness, with them on weekend hikes.



*Daedalus, on the left is a Black-headed Caique.
Icarus, on the right is a White-bellied Caique.*



Caroline picks blueberries and Icarus gets one to eat.

Harnessing a bird is not a simple undertaking and not every bird is a candidate for harness training. It takes time to develop and implement a shaping plan and positive reinforcement strategy. When done correctly with sensitivity to your parrot's body language, it can be a pleasant and enriching experience.

Harness Training Your Bird by Barbara Heidenreich is an excellent article and is available for you to read at <http://www.parrotchronicles.com/2005/features/harness/harness.htm>.

Caroline says Daedalus and Icarus love going for bike rides. In the photo below, it looks as if Icarus is taking the cover off the cage on the bike to indicate he wants to go for a ride.



1 ENRICHMENT

Leanna Rein, built an outdoor enclosure for her parrots that fits inside her back porch.



A view from Leanna's living room looking out the sliding glass door to the aviary.



Leanna's Macaws, Ruby and Zeus, in their back porch aviary taking advantage of a sunny summer day in Anchorage.

1 ENRICHMENT

Leanna used 1 1/4 inch black plastic ABS pipe that she bought in the plumbing department at the local Home Depot to create the frame.

She used 3-way connectors to attach the pipe at the corners and 4-way connectors to attach the pipe at the centers. The connectors to fit 1 1/4" pipe were white schedule 40 PVC and she spray painted them black.



She ordered the netting from www.gourock.com. Gourock is a company that designs and manufactures golf driving range nets. Leanna ordered the heaviest gauge netting and attached it to the ABS pipe with zip ties.

She drilled holes in the ABS pipe, attached screw eyes and hung untreated manila rope from the screw eyes to create places for the parrots to climb and swing. A similar effect could be accomplished using a StarBird Get-a-Grip.

There is a possibility the parrots could chew through this type of netting so Leanna doesn't leave them out in the aviary unattended.



Leanna finds that chewing on the netting hasn't been a problem with the birds. They spend most of their time climbing and swinging on the rope or chewing on the natural wood perches that she hangs in the aviary.

1 ENRICHMENT

Volume 2-4, Winter 2006 of Good Bird magazine has a very informative article by Jim McKendry titled “The Applied Science of Environmental Enrichment (Part One)”. The article goes into great detail on why environmental enrichment is so important for parrots and he identifies different types of enrichment programs. In that article, Jim McKendry writes that flight can be one form of enrichment as it can produce significant physical and behavioral benefits.



In our house, Ditto will fly from the living room to the upstairs where we have hanging play areas in all the rooms. We keep doors securely propped open so he can fly to the different play areas where independent play is encouraged by varying the toys on each play area.



There are countless articles written on the subject of wing-clipping offering a variety of opinions, pro and con. This is where you need to put on your “critical thinking” cap when reading about the advantages and disadvantages of keeping flighted parrots in the home.

Many factors need to be considered when making the decision to clip or not to clip. Not all parrots are candidates for flight. There are safety issues to consider and training becomes a priority with a flighted parrot.



Ruby flying to Leanna's hand.

“**Learning to Fly**” is a regular column of Good Bird magazine devoted to understanding, discussing, and exploring the many intricate details of flight. Whether one chooses to clip flight feathers or accept the responsibilities of caring for a flighted bird is a personal decision. However, there are many things to know and learn about flight that can be helpful to flighted and non flighted bird owners everywhere.

Vol. 3-1, Spring 2007, “Learning to Fly” column’s article by Barbara Heidenreich titled “Flighted Birds In The Home” addresses the many challenges owners of flighted parrots face to include:

- Identifying candidates for flight.
- Managing and training a flighted parrot in the home.
- Shaping plans for:
 - Training a strong recall.
 - Stay on cage.
 - Flying to a designated perch on cue.
 - Drop an item in beak.

Back issues of Good Bird magazine are available at <http://www.goodbirdinc.com/backissues.html>

1 ENRICHMENT

When I brought my first parrot home I must confess I knew very little about what these animals needed in the way of stimulation and activity. Somewhere in one of the many articles, books and magazines that I initially researched I read something to the effect, “Pet parrots need several hours of quality human interaction everyday. Happy parrots want to be with their flock, and that means having quality time with you, several hours a day.”

So, every day when I came home from work, I would scramble around catching up on chores and hurry to cook dinner so I could spend “quality time” with Byrd. I interpreted quality time to mean holding her in my lap while I held a piece of wood for her to chew. Having her perch on my knee as I scratched her head. If I did get up to clean the kitchen or fold laundry, I made sure she was perched on my shoulder and not left alone in the living room. We usually ended the evening with cuddle time before she went to bed. YIKES! Poor Byrd.

It was a lucky day for both of us when she climbed down off my shoulder one evening, walked over to the end table and started chewing on one of Jerry’s Aquarium Fish magazines. It was as if someone turned a light on in a dark corner of my brain. At that moment, I knew I needed to find things for her to do independent of me.

Today I’m retired but I find I’m equally as busy as I was when I worked. We now have seven parrots and my approach to providing enrichment has changed from those early days with Byrd. I no longer think they need hours of my undivided attention on a daily basis. And I no longer feel a sense of guilt when I put them back in their cages during the day when I’m home.

I am more observant and aware of what actually interests them. They all have individual preferences in toys and activities. A toy or activity that attracts one will not appeal to another. I try to provide stimulating activities for them that occupies their time but also allows me to attend to things I need to do.



The little birds spend a lot of the time they are out on their play stand where they have a variety of things to do; eating, climbing, playing with toys.

Buddy will come out and fly up to his favorite spot on the hanging basket at the end of the kitchen counter.



1 ENRICHMENT



He is free to climb or fly down to investigate what I like to refer to as “strategically placed” clutter on the counter. Items that I consider to be unsafe for exploration are put away in a plastic container with a closed lid he hasn’t figured out how to open.

But I keep some things on the counter to encourage him to explore. He’s welcome to get in the jar of almonds or the crock of foot toys. For this outing I’ve intentionally left the lid open on the multi-colored pasta in hopes he might want to throw some around.

And I’m free to unload and load the dishwasher.

Although we’ve chosen to accept the responsibility of flighted parrots in the home with Ditto and Buddy, we determined Byrd is not a good candidate for flight at this time. Byrd will occasionally exhibit aggressive behavior towards Jerry and it seems to escalate when she is flighted. I often will start Byrd out on the hanging basket where she enjoys chewing on the basket and I hang toys from it in a way that allows her to climb down to the counter if she chooses to explore.

Where Buddy and Ditto want to be able to get into things, Byrd is more interested in finding something on the counter to chew. So I try to place things amongst the clutter on the counter that will provide her this activity. For this outing, she is busy chewing on a box while I am free to make birdie bread.



1 ENRICHMENT



Elvis is cautious of new experiences. He came to us in April of 2006. He was 12 years old and had not been exposed to the types and variety of enrichment that Byrd, Ditto and Buddy have been.

Elvis is teaching Jerry and I a great deal about ABA and positive reinforcement training. Not to mention the exercise in patience one needs to effectively use these training tools. It's taken us well over a year to get him this far.

As you can see in this recent photo, he is uncomfortable and hesitant about going over to explore what's in that container.

I find if I take it slow; present new things in a way that gives him a choice whether to participate or not; and offer the right reinforcement he can be enticed to explore and engage in kitchen counter activities.

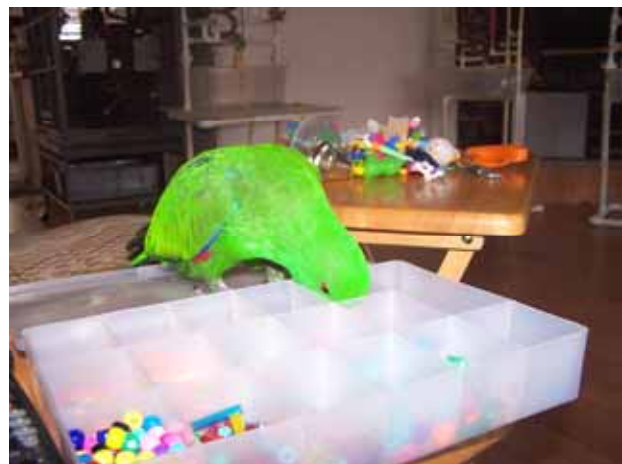


Lured by goldfish crackers and almonds, Elvis chooses to explore and proceeds to toss out all non-food items to get to the treats hidden within.



I think that something as simple as watching me fold laundry can be an activity that offers enrichment.

Sometimes I let the birds participate in toy making activities. I don't get many toys made and I spend a lot of time picking beads up off the floor. However on these occasions, it isn't about the quantity of toys made— it's about the quality of time spent with the parrots.



I find that providing even a short ten or fifteen minute period of varied activity can have a significantly positive impact on their lives.

2

FORAGING AN ESSENTIAL FORM OF ENRICHMENT

The PEAB, V1.0 contained a chapter titled “Treasure Hunting” that touched on foraging ideas. I’ve learned a great deal since then and I’d like to elaborate on this subject.

MSN Encarta dictionary defines forage as “a search or the process of searching for something, especially a search for food and supplies or a search among a varied collection of things”.

Availability of food is uncertain in nature so foraging is a complex and time consuming activity. Consequently, parrots in the wild spend a large part of their waking hours foraging for food and I would assume the search is both challenging and stimulating. They must travel to areas with food, locate the food, and then figure out how to extract the food item or edible portion of the foods they find.

In our homes more often than not, food is delivered in a dish and the act of finding, extracting and eating food rarely presents as a challenge to the companion parrot.

The more I read on the subject, the more I realize that providing foraging opportunities for our birds in captivity is so important. And then my guilt sets in as once more I deliver their breakfast in the uncovered food dish and I vow to do better—later on. Right after I do the dishes, start a load of laundry, vacuum, dust, clean cages, walk the dogs. . . .

Until recently, coming up with ideas to give my parrots foraging opportunities was a bit overwhelming for me. But I started searching the web for ideas and it isn’t as daunting a task as I had led myself to believe, particularly when I recognize that the act of foraging isn’t exclusive to food. As in the dictionary definition above, a foraging opportunity could be a search through shredded paper for a favorite foot toy. I like to think of it as a game of “hide-n-seek” or a “treasure hunt”.

There are ways to provide foraging activities for your parrot that will help alleviate boredom and provide him with a significant amount of physical and mental stimulation. Some are uncomplicated, quick and can be incorporated in a daily routine. Others are more time consuming, a bit more complicated and perhaps better saved for your weekend. All are doable.

Let’s explore some ideas that parrot owners have come up with to encourage foraging inside and outside of the cage.



By Permission of Phoenix Landing Foundation
The Phoenix Beakñ Fall 2007

Converting Cages Into Enclosed Foraging Trees

by Michelle Czaikowski

I found Dr. Scott Echol's Captive Foraging video very inspiring. I would even say it was life changing for me and my birds. After viewing the video, I was ready to create foraging trees! The more I read and learned about foraging behaviors in wild parrots, however, the more I realized they would need more time to forage than they were permitted outside their cages on days I work. This knowledge inspired me to devise a plan to convert their cages into enclosed foraging trees.

The conversion has been a slow, heavily monitored process. My birds initially did not know how to search for food. Their food had always appeared in the same bowl at the same time every day. Even though foraging is somewhat instinctive, they still needed to be taught how to do it. As I watch fledging birds in my backyard, I sometimes see them following behind their parents as they search for food. They are learning to forage.

My first step was to add more food bowls to their cages. I purchased a number of the ten ounce Lixit Quick Lock Crocks. I placed two in each of their cages. At first, these were placed beside perches for easy access. In addition to their usual food bowl, this made a grand total of three bowls in each cage.



The second step was to get them to check them. This was relatively easy to accomplish. The bowls sat empty in their cages for several days so the birds had time to adjust to their presence. When I was ready to add food to them, I allowed them to watch me place a favorite treat in each of the new bowls. They immediately went to the bowls to retrieve the desired treat.

Once I was assured they would retrieve the treats after watching me place it in the bowl, I tried to be less obvious about it. I started placing treats in their bowls while they were in another room.

After finding the new bowls contain only remnants of eaten treats seven days in a row, I was satisfied they had learned that checking these bowls may result in tasty consequences.

My next step was to add non-food items into the rotation. Instead of a treat being offered every day in each of the new cups, sometimes I laced a foot toy in one or both of the cups. I did this for another week.

The fourth step was to mix it up even more. In the morning, when their food would normally appear in the front bowl by their water bottle, I placed empty bowls in their cages at those places instead. Their regular diet was placed in one of the Quick Lock crocks instead. I implemented this step for the first time on a weekend morning so I could watch to make sure they found their food. After looking over at me for a short while, possibly to make sure I wasn't going to exchange the empty bowls for filled ones, they each did venture over to explore the other food bowls. Each of them found the bowls that contained their regular diets. Had a bird not located the bowl that contained the food within an hour, I would have either taken him/her to the bowl with the food, placed a favorite treat in the bowl to call attention to it, or placed some pellets into their usual bowl.



I have increased the number of Quick Lock Crock attachments placed throughout their cages. Now, varying numbers of bowls appear in different places each day for them to explore. Some are not located near perches. Others are closer to the cage bottom. Some have food. Some have toys. Some are empty. Some bowl holders have no bowl. Successfully looking for the bowls each day, and looking to see what was in them, completed their first foraging lessons. This was the first phase I implemented when converting their cages into enclosed foraging trees.

Michelle also shares a follow up article scheduled for an upcoming newsletter:

Converting Cages Into Enclosed Foraging Trees, Part Two: Hide and Seek

After completing Part One by adding bowls to my birds' cages and getting them used to the idea that food doesn't always have to be in the dish beside the water bowl, I was ready to move to the next step in the cage conversion process.

I added some elementary foraging toys. Skewers, Jungle Talk's Hide-A-Treat, and Nature's Instinct's Barrel of Fun are three of my favorite elementary foraging toys. I allowed my birds to see me place a favorite treat inside the Hide-A-Treat toy the first time. I also left the Barrel of Fun open initially so they would associate it with a desirable treat.



Next, I wanted to increase the difficulty level for them in finding food in the bowls I'd placed around their cages. I placed food inside 3 ounce Dixie cups and crumpled them. I made foraging toys out of unbleached coffee filters (instructions follow this article). Toy parts like ABC blocks, wood beads and pine slats all made lovely foraging foot toys when dried fruit, veggies, or nuts were placed inside the predrilled holes. Sometimes these simple foraging foot toys were also placed in their foraging buckets, inside their jolly balls, or anywhere else they were likely to explore but unlikely to expect food. A foraging plate was also added into the toy rotation.

At times I covered one or more bowls with an unbleached paper towel. Paper towels may sit snugly under the ring holding a metal bowl to their cage. They may also be secured to bowls using vet wrap or another bird safe tape.

Even though my birds loved shredding paper towels, the first time they saw one covering their food bowls they were wary. I placed a treat on top of the paper towel to encourage them to explore the bowl. Cutting a small slit in the top of the paper to so they could see the food underneath was also helpful.

Once they mastered the elementary foraging toys, I was able to purchase some more sophisticated ones for them. The elementary toys are still rotated through their cages along with the foot toys and bowls. Not all of these ideas are executed simultaneously. Rather, I try to use a couple of them each day so they have different foraging opportunities than the ones they had the previous day.



Implementing these steps really got my birds accustomed to looking at their environment differently. My Senegal, who wasn't previously a toy enthusiast, began exploring any new item placed in his cage, possibly to evaluate whether it might be harboring a tasty treat. Once they acquired this mindset, it opened additional creative possibilities concerning how and where their food may be placed in their cages. The goal, of course, was to move towards making them work for as much of their daily intake of food as possible. This also creates more challenges for us in coming up with creative new ways to hide it from them. Luckily, there are many interesting new foraging toys on the market now, and lots of bird owners share their own ideas readily online.

2 FORAGING

Sunflower Foraging Toy

by Michelle Czaikowski

This is a quick and easy foraging toy you can make with objects that are probably already in your home. It is recommended for foraging beginners, or for birds who love to shred paper. Basic instructions are provided below for two versions of this simple toy. One may be hung in your bird's cage; the other may be used as a foot toy.

Materials needed:
For the foot toy version:
Unbleached basket-style coffee filter
Untreated hemp rope, Paulie rope, or leather strand
Your choice of treats
Scissors
For the hanging version:
3 unbleached basket-style coffee filters
Untreated hemp rope, Paulie rope, or leather strand
Your choice of treats
Quick link
Scissors

Sunflower Foraging Foot Toy Instructions

1. Place foraging treats in the center of the coffee filter. Small birdie bagels or woven palm leaf strips may be used instead of or in addition to the foraging treats.
2. Lift the coffee filter paper up and twist it around so that the filter forms a tight pouch around the foraging treats.



3. Tie a piece of hemp rope/Paulie rope/leather at the twist.



4. Cut the rope 1-2 cm from the knot.

5. Fold the coffee filter back so that the ridges of the filter form the flower petals, and the treat pouch forms the flower's center.



Sunflower Foraging Hanging Toy Instructions

Follow steps 1, 2, and 3 of the Foot Toy Instructions.

4. After tying the knot, create another sunflower and tie the flower to the same piece of rope 2"-3" away from the first sunflower.
5. Repeat Step 4.
6. Tie the end of the rope to a quick link and hang in your bird's cage!



Michelle has posted more of her ideas at <http://birdtested.com>.



2 FORAGING

If foraging is new to your bird, start slow. For birds who have never had to forage, some give up fairly easily when presented with food that is not delivered in the manner they have become accustomed to. So you need to work with these birds to help them figure out how to discover the hidden treat or food item. One of the first things you can do is cover or wrap the food dish with paper. Let your bird see you hide the food. Sometimes you may need to poke a hole in the paper to show him food is inside the dish.

In this photo, Ann Brooks, a founder and current president of Phoenix Landing Foundation, has covered a food dish with butcher paper tied on with sisal rope.

Notice she has a banana chip placed on top of the paper to peak interest and encourage foraging.



It worked. Phoenix, Ann's Green-wing Macaw is getting the idea.

And after Phoenix has finished the banana chip. . .



It doesn't take long to make the connection—there is more food inside.



2 FORAGING

Here is another example of how to introduce a parrot who isn't used to foraging to the idea of working for food. This is a Jungle Talk Hide-A-Treat toy.

We were bird-sitting Guapo, Tim and Sydney Kaderman's Quaker, and I showed him that there is food inside this toy. I put seed in there at first as those were the food items most desired by Guapo. After he got a seed out, I closed the lid and waited. When he didn't try to open the lid, we repeated the process and let him get another seed.



After three introductory lessons on how to get a seed out of the cup the easy way, Guapo starts to open the lid and fend for himself.

Buddy figures it out on the first try and really gets the hang of it. I have also put their chopped veggies, sprouts, fruits and nuts in this toy as it holds wet foods well.



2 FORAGING

One more example of how to introduce foraging to your parrot. This is an idea I got from the “Captive Foraging for Parrots” community on LiveJournal. It was in the archive files. The link to that site is: <http://community.livejournal.com/captiveforaging/>.



I filled ice cube trays with veggies, sprouts, nuts, beads & foot toys; covered them loosely with newspaper attached with masking tape. I poked holes in places and had almonds sticking out to get their interest.



I put the trays in the bottom of the cages. Byrd was curious and came down to investigate, but didn't tear into it. In time I think she will.



Ditto came down and started tearing the paper right away.



Buddy didn't start foraging in his covered ice cube tray until I put it in his play stand and tore bigger holes in the paper to show him there was food inside the compartments.

In Fall 2007 Phoenix Beakin newsletter, Neesie Mann shares how she was motivated to introduce her flock to try feeding on the foraging table. She put a few baskets of sprouts on the island, threw around some chopped carrots, basil, grapes, melon, birdie bread, cilantro, chopped kale and added in some toys for good measure. She brought out the birds and they were all over the place having a great time acting like flocking, foraging birds. Neesie said they were busy for two hours. It was awesome.



The Phoenix Beakin is the newsletter of the Phoenix Landing Foundation. Current copies are available for download at their website, www.phoenixlanding.org.

2 FORAGING

I mentioned earlier the “Captive Foraging for Parrots” community on LiveJournal. I was happy to get permission from some of the members to include a few of their ideas in this book.

Rachael of Long Beach, CA shares her imaginative ideas for encouraging foraging with her Cockatiels.

She purchased some rice paper sheets that are used in making fresh rolls. You can find them in oriental stores or sometimes in the oriental section of the grocery.

You soak a sheet briefly in hot water to soften it. Then place it on a wet paper towel and be careful to lay it flat because the rice paper will stick to itself.

Place some chopped veggies, sprouts, scrambled egg or food items of your choosing on the wrapper and roll up egg roll or burrito style.



Rachael is handing a filled rice paper sheet to Galileo, Static and Bumble B.

You can see that Galileo and Static are used to tearing into the rice paper to get at the food inside.



2 FORAGING

Rachael found this toy at a pet store and modified it by taking the ball off and unscrewing the two screws holding it together.



Then she filled it with seeds and put it back together. She found that the toy does not need the screws put back on; it stays together quite well without them.

And it makes a fun foraging toy, as modeled by Static! Her initial efforts centered around her picking up the ball by the hole on the top and manhandling it that way. But later she started rolling it around and getting seeds out.



Rachael has also posted a video of Static playing with this foraging toy. Here is the link to watch the video: <http://community.livejournal.com/captiveforaging/12938.html#cutid1>

2 FORAGING

Megan Grueneberg shares her ideas at the “Captive Foraging for Parrots” community on LiveJournal. Here are just a few of them.



A foraging tray for Lovebirds, Leyla and Nai-Nai. She used a small Tupperware container, filled it with shredded newspaper; small items such as plastic straws cut in 2” pieces, plastic or wooden buttons, Lego pieces, pony beads, shredders cut in 1” pieces, pasta, and other small bird safe items. She added in edible dry food; pellets, nuts, nutriberries, seed, and mixed everything up in the tray. She placed it at the bottom of the cage in an area usually free of droppings. As you can see in this photo, small birds can forage too.



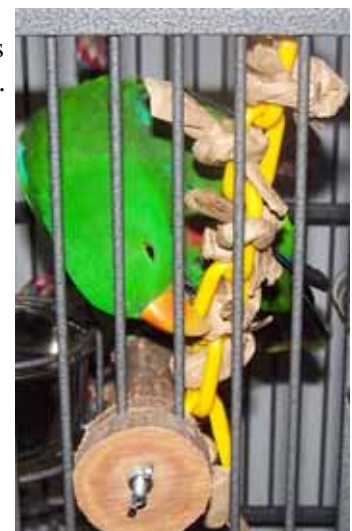
Megan made this foraging toy by stringing three pleated paper condiment cups on a piece of raffia separated by beads.



Another good idea Megan posted to “Captive Foraging for Parrots”. Wrap treats, nuts or pellets in paper and stuff the paper through plastic chain.

I tried this at my house. Ditto went right to his new foraging toy as soon as I put it in the cage.

This would be a good make-ahead toy project. You could use larger chain for larger parrots. You could also wrap non-food items in paper to stuff in the chain, like beads, small pieces of left over shredders or wood.



2 FORAGING



Here she took a small cholla perch, stuffed some seeds and pellets in the holes and attached the perch vertically hanging down from the top of the cage.

Megan made Smudge, her Indian Ringneck, a foraging block. She took an untreated pine 2x4 and cut it into a 6" long block. She drilled several 1/4" holes throughout the block of wood and stuffed the holes with pecan, walnut and Harrison's power treats. She ran a leather strip through a top hole and hung it in the cage. Smudge went to it right away and started foraging for the food.



Another way to make a foraging block is to cut slats in a block of untreated pine. The StarBird Brainiac Block (see www.estarbird.com) is a good example of this type of foraging block. I put craft sticks and sunflower seeds in this small one and Byrd kept chewing on the wood after she got all the sunflower seeds. There seems to be something in this design that encourages chewing.

My friend, Debbie Ross's Congo African Grey, Toto, does not chew on wood pieces strung on toys. But he will destroy a block of wood with slats cut into it.



This is what's left of one of Toto's Brainiac Blocks.



2 FORAGING

Here they are again, Caroline Moore's Caiques, Icarus and Daedalus. Caroline posts her foraging ideas to the "Captive Foraging for Parrots" and she is sharing a few of them with us.

Caroline shows us one idea she calls "dish of fluff". She fills a food dish with Carefresh (recycled newspaper bedding) into which she mixes their pellets plus a few treats and foot toys. They spend a lot of time beaking the Carefresh and throwing it everywhere.



Caroline also gave them "Fruit in a Cube".



"Fruit in a Cube" is a set of nesting baby blocks with differently shaped holes on each side. She wrapped an apple slice in paper and took a piece of coconut with shell on and placed them inside the block.



Both Caiques spent quite awhile working chunks of coconut and apple out of the block.

If encouraging nesting activity would be a concern for you using a shredded newspaper product like Carefresh, then perhaps you would be more apt to try Pat Phillips idea. Pat is a PBAS list serve thread leader and lives in Scarborough ON, Canada. While she was sitting for a friend's Amazon, YoYo, Pat filled the food dish with wooden beads and mixed in his pellets. YoYo forages through the beads to get his pellets.

Pat has a good tip, she washes the wooden beads in the dishwasher. I also tried this with my parrots. I had small wood beads and found I could wash them in the dishwasher if I put them in a mesh lingerie bag first and then placed the bag on the top rack of the dishwasher.



2 FORAGING

Caroline uses whole peppers, hollowed out zucchini or yellow squash and cucumber to make foraging bowls to stuff with their fresh food diet of minced vegetables and sprouts. She threads the stuffed vegetables on skewers and hangs them in the cage.

That is a sumac flower on top of the green pepper.



When she returned home from work, Caroline found this was all that was left of the pepper and zucchini skewers.



Icarus and Daedalus are tearing into a stuffed cucumber.



Caroline had been wrapping the fruits on her Caiques hanging skewers in phone book pages, leafy greens or half a tortilla. She wanted to vary things a bit so she went to the craft store and bought paper nut cups, wooden flowerpots, small thin strips of wood. She sometimes wraps slices of banana with peel on in paper nut cups and the wooden flower pot can be stuffed with a treat and capped with a piece of vegetable.

Veggies and fruit can be wrapped in bamboo leaves from the Asian grocery.

At the top of the photo is a disposable plastic bird feeder for wild birds that she got at a local pet store. She puts pellets in that and hangs it in their cage.

2 FORAGING



I met Ann Shewan in Canada at the “Parrot Behavior and Learning: A Step Up and Beyond” .

I also met her Eclectus, Bailey. Ann brought him to participate in the training workshop with Barbara.

Here is a terrific example of something you can fix up quickly. Ann put treats, pellets, nuts and toys in a paper bag, tied it with sisal rope and hung it from the top of Bailey’s play perch.

Bailey keeps working at tearing into the bag and he gets a prize almond.



Ann shows us another way to make foraging toys out of pleated paper condiment cups. She strung these on paulie rope with plastic lattice links at the top and bottom to hold the cups together.

I love this photo of Bailey. Just look at what you can do with a paper cup and something interesting hidden inside.



Paper coin wrappers can be used to create foraging activity. I wrap nuts; carrot and celery sticks; thick stems from collard greens; zucchini sticks; pieces of apple; and anything else I can think of in coin wrappers. I put them in cage dishes or in the bottom of the hanging baskets. You can also put stuffed coin wrappers inside other foraging toys.

Do ahead tip: Stuff coin wrappers with veggie sticks the night before and put them in a plastic bag in the refrigerator so they are ready to put in the cage bowls in the morning.

2 FORAGING

Teresa Schnurr lives in Canada and I met her attending the same seminar. Teresa maintains a wonderful website (www.companionfids.com) where she shares photos of the toys she makes for her parrots along with detailed instructions.

Teresa's instructions for making the "Foraging Multi-Level Layer Toy".

Items Needed

- Straws (wacky whirly straw kit)
- Large colored beads; spoons, etc.
- Condiment cup and lid
- Large peanut butter jar lid
- Stainless steel chain
- Cotton rope
- Wood pieces
- Large macaroni pieces
- Napkin holder rings
- Plastic parts that can hold an item

Process: Drill 5 holes in the peanut butter cup lid, one being in the center. Take the stainless steel chain, making sure the one end is closed with an "o" ring or link and place wood and plastic beads for about half the chain length. Then place the peanut butter lid on the chain, add a bead and condiment container. Place whatever foraging items you want inside the container and add the lid. Add additional plastic and wood beads till end of the chain. Secure top of chain with an "o" ring or link.

(If you don't have stainless chain, you might try using a leather strip with a knot at the end and loop at the top.)



Take your cotton rope (dyed or plain) and string on wood, plastic and macaroni pieces and tie to the 4 outside drilled hole areas of the peanut butter lid. You can see I use napkin holder rings or plastic pieces that you can store foraging items within. Add the curly straws to the top.

Aztec, Teresa's Grey-headed parrot, getting a piece of pasta off of this toy.

Search the internet for wacky whirly straw kit. The wacky whirly tool cut straws in a swirly design. Simply take a number of the cut straws and put them together with a zippy tie. Attach to a toy base or just to the bars of the cage.



2 FORAGING



Storm, Teresa's Congo African Grey, is definitely engaged in a search for something in this "Crunch Munch" toy.

Notice how Teresa incorporates food items directly into this toy by stringing melba toast rounds on the toy and using pasta instead of beads to separate the toast rounds.

Detailed instructions of how to make this foraging toy can be found at www.companionfids.com.

Galaxy, Teresa's Rose Breasted Cockatoo, is very interested in a JW Pet Insight Activitoy Treat Holder. Teresa got fancy with this one using a plastic jar lid for the base and stuffing it with a number of interesting items.



Teresa inspired me to try one for myself. I used a popular dog toy called the "Sphericon" that I found at a local pet store and I stuffed it with a variety of items. Beads, leather shapes, cork, nuts, etc.



I used a leather strip threaded through the top of the toy for hanging. In a few short minutes, I had three new foraging toys.



Buddy could not wait for me to hang the toy in his cage. He jumped right in and started trying to get at the items inside this toy.

Thank you Teresa, for motivating me to make this toy and create a stimulating foraging experience for my birds.

2 FORAGING

Heavy gauge, stainless steel pails can provide foraging opportunities. I like them because they won't crack, rust or break and they are ideal for outdoor aviary toys. A caution though, if using this type of toy pail you need to make sure your bird will not get caught in the handle mechanism.

I've found two types of this toy are available. The Platinum Toy Works, Bucket of Fun that you see Buddy and Ditto foraging in and the one you see Dallas foraging in, usually called a stainless steel treasure chest or pail. I have both types and I find my parrots prefer the Platinum Toy Works product. The handle on that one is made of close-link stainless steel chain. Buddy and Ditto like to climb on the chain handle and swing from it as they get toys out of the bucket. As you can see from the photos parrots like foraging in both types of this toy.



Dallas is totally into foraging in his SS pail.

Photo credit: Ann Brooks, Phoenix Landing Foundation



These stainless steel pails, the Treat Maze (pictured above on Buddy's cage door), the Treasure Chest toy (pg. 46), and the Hide-A-Treat toy (pg. 34) are durable, washable and easy for me to employ as foraging opportunities when life comes at me fast and furious.

There are days when I depend on these types of enrichment devices as it is all I can do to throw a few foot toys in the pail, fill drawers and stuff a nut in the treat maze. But I try not to rely on them as a routine or my only means of providing foraging opportunities. The risk of doing so would result in poor outcomes in terms of sustained interactivity by the parrots.¹

The challenge for me is to consider individual preferences and find ways to encourage foraging that is suited to the exploratory behavior of each parrot. And to work on building complexity into the foraging opportunity for prolonged activity.

¹Jim McKendry, 2006. The Applied Science of Environmental Enrichment (Part One). *Good Bird magazine*, Vol. 2-4, Winter 2006.

2 FORAGING

Parrot Island makes these Treasure Chest foraging toys in all shapes, sizes and configurations. I purchased the small 2x2 drawer hanging Treasure Chest. I didn't think I could get by with putting one in Ditto's cage and not put one in Buddy's cage so I purchased two, one with clear drawers and one with colored drawers. I wasn't sure how Elvis would take to a toy like this in his cage so I didn't buy one for him.

In hindsight, I think I should have spent just a bit more and purchased the 6 drawer combo. Both parrots became so adept at getting everything out of all the drawers that the experience only lasts a few minutes. The 6 drawer combo combines a slide through drawer in center with the pull out drawers of the standard models. That might be more challenging.



I think I can make this more complex for Buddy and Ditto if I use masking tape to tape the drawers shut. Or use a combination of newspaper and masking tape on the drawers to add another level to their foraging activity with this toy.



However for Elvis, the Treasure Chest was a good way to introduce him to more foraging activities.



I was wrong in my thinking that Elvis would be frightened of this toy. I put one in his cage and he started foraging in the drawers without hesitation.

Goldfish crackers are a powerful reinforcer for Elvis. The first thing he did was open a drawer to get a cracker out.

Where Buddy and Ditto require more complex foraging opportunities to keep them busy, Elvis will quickly give up if the foraging activity is too difficult.

So the less complicated design of this type of device works well to encourage Elvis to forage and get him habituated to more challenging foraging opportunities.

2 FORAGING

I purchased a Yellas toy from Grey Feather Toy Creations to hang outside in the aviary. It is four stainless steel (SS) measuring cups attached to SS close-link chain by SS welded rings. Because it was made from 100% stainless steel, I thought it would be an ideal toy to hang outside in the aviary. Buddy would spend some time swinging from the chains and make noise clanging the cups together.

But the toy didn't hold his interest for very long until I turned it into a foraging experience by filling the cups with foot toys, beads, small pieces of wood, nuts, pellets, treats and anything else I could think of.

I cut out newspaper to fit over the tops of the cups and attached them with masking tape. I used two to three layers of paper to make it more difficult for the birds to chew through to get at what was inside.

Buddy spent so much more time with this toy once I modified it to include a way to forage that I went out and bought several sets of stainless steel measuring cups to make toys for inside the house and cages.



Here I used a large whiffle ball with three strands of paulie rope threaded through the ball. I braided each side of the strands of rope and incorporated plastic toys into the braided rope alternately with the measuring cups. The plastic spoons and forks are made for infants. I found them in a store's baby department and turned them into parrot toys by drilling holes in the handles.

I also made a few with a single strand of paulie rope and attached the toys and cups by tying knots in the rope. But I like the braided rope version best because it gives them a sturdier place to hang and swing from when they are trying to get at the items in the cups.



2 FORAGING

These are also great make ahead toys. Once you make the toy, you can refill it over and over again. I made about six of these toys. Using non-food items and dry food items like nuts and seeds, you can fill, cover and tape the cups while you watch television in the evening. Then you have a great foraging toy ready to hang in the cage on a busy morning when you have to rush off to work.

Buddy



Ditto

And Hooray for Elvis!

To get Elvis to come near this toy, I had to make it easy for him by tearing a hole in the paper covering the largest cup and placing a walnut half in plain sight. But I consider the fact that he approached the toy to retrieve the nut a huge step toward getting him to participate in more foraging activities.

I would have liked to include a photo of Byrd, but she is afraid of this toy. I have to respect her fear and we'll find something else for her to do.



2 FORAGING

You can turn an ordinary straw basket into a foraging opportunity by adding toys and treats. Use different materials to tie some onto the basket. And place some foot toys loose inside the basket as well. The finished basket can be fastened to the bars of the cage with zip ties.



Baskets are one of Ditto's favorites. I find these baskets at craft stores and get any number of their favorite foot toys, plastic animals and a piece of drilled corn to tie on with leather, paulie rope and sisal rope. Loose in the basket will be nuts, maybe a piece of ginger snap cookie and more foot toys.

Buddy moved so fast to get to his basket after I put it in the cage that the only photo I could get of him foraging in it was a gray feathered blur.



I'm frugal when it comes to toys and toy parts. I like to recycle any toy I can. I salvage what's left of the baskets after Ditto and Buddy have finished; tie on a few little toys and it becomes a basket toy I can tie on the bars of Gracie's cage for her to chew or shred.

2 FORAGING

One of the toys Tim and Sydney brought with Guapo was a foraging toy Tim had made. Tim saved the lids from his yogurt drinks and the plastic tops of syringes used for a diabetic cat of theirs to make this toy. He used a thin strand of what looked to me like hemp rope as a base to thread them on.



A similar toy could be made for any size parrot using different size plastic lids, strung on various sizes and types of rope, with beads used as spacers to keep pairs of lids together and separate from other pairs.

They suggested I hide Guapo's pellets inside the lids so I tried it.



Guapo went to get his pellets from inside the lids as soon as I hung the toy in his cage.

2 FORAGING

Here we find a foraging activity for Byrd.

An artichoke makes a great foraging toy. You can put one on a stainless steel hanger and stuff the leaves with a variety of fruits and vegetables.

Artichokes have sharp thorns at the end of the leaves. More often than not these are trimmed by the grocer before putting them out to sell. If you do get one with sharp thorns still attached, they are easy to trim. Just cut the thorny tips of the leaves off with a pair of kitchen shears.



To encourage the little birds to explore more of their cage, I hang whole wet turnip, collard or mustard green leaves in their cages.



Michelle Czaikowski turned this leather & sisal perch into a foraging opportunity. She tied paper wrapped toys and treats to the ends of the leather strips hanging from the perch. By the looks of it, her birds get the added benefit of exercise when they go after the treats tied to this perch.



There really are a number of things we can do to provide our parrots with foraging activities that will help alleviate boredom, encourage exploration and provide them with stimulating mental and physical activity.

3 TOY MAKING 101



*Guapo picks out his favorite beads for Sydney to string on his toy.
Photo Credit: Sydney Kaderman*

When the subject of making parrot toys comes up, I often hear people say, “I’m not as creative as you are. I can never come up with ideas like you do for making toys.”

It wasn’t long ago, December of 2004 to be exact, that I learned how to make my first parrot toy. It was at a toy making class organized by the Anchorage chapter of the Parrot Education and Adoption Center. Leanna Rein who is now current President of The Alaska Bird Club came to help. She brought boxes of phone books, examples of items she found at thrift stores and more. I had never heard of or thought of the idea of cutting a phone book in half and hanging it in the cage until Leanna showed me. I was excited and eager to learn more.

I laugh now as I recall her puzzled look and remember how patient she was when I asked her to show me how to tie a knot in two pieces of leather, so I could fashion a toy base like one she brought as an example. I needed to learn the very basics of toy making.

I also remember thinking I would never be able to come up with ideas on my own. I tell this story to encourage those of you reading this book that are having similar thoughts. And to help you realize that once you get started, you too will discover how to use your imagination to come up with ideas for toys of your own making. The more you do it, the easier it gets.

Just as Leanna helped me discover the parrot toy maker hiding inside of me, I hope to help you with ideas to get your creative juices flowing. And if you are a seasoned toy maker, maybe give you a new design or two to add to your repertoire of homemade toys.

How do we go about finding the right toy? The one they'll play with? I think that is where making your own toys has its advantages. If you can determine what your parrot likes you can customize a toy that appeals to him and one that he is more likely to play with.

As I told you earlier, Elvis was 12 years old when we adopted him. He didn't move around much in his cage or on his play stand. Initially the only activity we could get him to participate in was shredding a phone book. I was determined he not remain a perch potato and wanted him to play with more toys. The challenge for me would be to figure out what rocked his boat. So I set about slowly introducing a variety of toys to him. If he showed signs of discomfort when I put a new toy in his cage, I immediately removed that toy. If he did not appear disturbed by a new toy, I paid close attention to what it was about that toy that seemed to interest him.

The Scooter World Squid Bungee is a favorite of both Ditto and Buddy. I decided to introduce Elvis to one. Elvis didn't back away when I slowly brought the toy into his cage. He let out a whoop, leaned forward and rubbed his beak on it. I thought we had hit on something he would play with.

I left the toy in the cage for several days and observed he hadn't touched the toy. I did notice the paulie rope was frayed at the top and it looked like he had tried to untie the knot.

I had put toys with beads on knotted strips of leather in his cage before, but he never attempted to untie those knots. Apparently paulie rope was of interest to Elvis.

With this new information, I set about customizing a toy for Elvis. I wanted lots of paulie rope knots for him to untie. Knowing that Elvis liked to have his beak rubbed, I added polar fleece strips to the toy, thinking he would like rubbing his beak on the soft fabric.

Items Needed

- Paulie Rope
- 2 Plastic Spin Wheels
- Polar Fleece
- SS Quick Link

Toy Directions:

At each hole around the outside diameter of the spin wheel tie a short piece of paulie rope, having a knot on each side with a short piece of rope extending from each knot.

Cut a length of paulie rope 12 to 14 inches long. Make a loop at the top for hanging and attach your SS quick link. Thread the first spin wheel on the rope through the center hole of the wheel. Tie a couple of knots below the wheel to ensure it remains at the top. Cut several small short lengths of polar fleece and tie them along the rope to about 4 inches from the end. Thread the second wheel on in the same manner as the first and secure the end by tying 2 or 3 knots.





It appears I may have been wrong about the polar fleece being something Elvis would like. But I was dead on about the paulie rope. The idea to tie several small knots around a plastic spin wheel was exactly what appealed to Elvis. It just makes my heart sing when I walk by his cage and see Elvis chewing the ends of the paulie rope on this toy.

Now that I found something he likes, I can build on that and make other toys adding one or two new items at a time.

I made a foot toy similar to the first toy. This time I tied beads and knots at each end of the short pieces of paulie rope around the outside diameter of the wheel. And I tied a length of sea grass rope in the middle to add a little more variety.

Elvis picked this foot toy out of his toy bowl and I think he must have played with it a good 15 minutes the first time.



3 TOY MAKING 101



I usually stuff these Carousel Treat Holders with leafy greens and other food. But an idea occurred to me while reading a magazine. I tore out several of those advertisement cards that come in magazines and folded each one up accordion style. Then I stuffed the folded cards between the bars of the Carousel Treat Holder.

Ditto loves plastic straws, so I stuffed a few in between the folded paper to peak his interest.

Now I have two options for this toy. One as a food foraging toy and the other as a shredding toy.

All three little birds like small beads and straws or tube beads. I found if I string them on hemp rope, not only will they play with the beads, but they spend time chewing on the knots in the rope. You can find thin hemp rope in the beading department at craft stores.



Byrd's favorite things are books, magazines and wood.

I used leftover parts for this toy Byrd is chewing on. The thin pieces of untreated pine were left from a wood working project of Jerry's. I salvaged some chewed up sunburst wheels (or plastic gears) from one of Buddy's toys to use as spacers between the wood. And I strung them all on a piece of paulie rope.

3 TOY MAKING 101

While Guapo stayed at our house, I would bring him out to spend time on the play stands in the living room.

I noticed Guapo started to play with a toy I had made for Buddy. He was interested in one specific plastic part on that toy. That part is called a Parrot Curler and I've listed sources for them on page 91.



I made a small toy for Guapo using a whiffle ball as a base and attached Parrot Curlers to that with 1/8 inch vegetable tanned leather strips.

I added a foraging feature to the toy by stuffing Harrison's Power Treats in the tops of the Parrot Curlers.



When it was time for him to go back in his cage, Guapo had a new foraging toy to work on.



3 TOY MAKING 101

You can find any number of ideas to make toys online. Lori Gibbons sent me a link to a great toy making resource, www.cheeparrottoystips.com. When you log onto that website, you will see a column on the left titled “Cheep Toy Instructions” and a listing of tabs to click on for step-by-step instructions on how to make a number of toys such as, “Tina’s DQ Double-Dip Dazzler” under the Fids Fast Food Fun tab. Or “Ilona’s Basket of Fun” under the Baskets & Straw tab.

The Toymaker at Birds n Ways is an area of the website where tips and ideas for making toys are submitted by other parrot owners. You can access The Toymaker at www.birdsnways.com/birds/ideas.htm.

Teresa Schnurr is constantly adding toy making instructions to her website www.companionfids.com. Here she shows us how to take a ready made toy and turn it into a foraging toy. Teresa calls this the “Stuffed Squiggly Wiggly” toy.

She starts with a “Rubber Squiggly” toy.



And adds all sorts of fun foraging items to it such as plastic beads, leather shapes, plastic measuring spoons and corn husks.



With some simple additions, she has created a toy that is of interest to Aztec.



3 TOY MAKING 101

Once you get in the habit of observing your parrot at play and pay attention to the things he likes to hold, manipulate or chew; you will also start seeing things in stores that shout out to you “Parrot Toy”!

A friend and I were at Wal-Mart just before Halloween and she was looking for candy and other items to fill up a box to send her grandson. I wasn't planning on getting anything, until I spotted these straws. There were five to a package and they were only a dollar. I picked up all they had. Margie wondered why I was putting those in my cart and I told her, “They're parrot toys!”

Buddy likes straws and with all the different shapes and texture on these straws, I just knew he was going to love them. I was right.



The first thing he does is chew off the straw parts. Then he keeps working at it until he gets the plastic pumpkins apart. It's a great foot toy. I hope they have Santa straws at Christmas time because I think I'm going to run out of these.

The ends of the straws can be used in other toys, such as this Loofa Stuffer foot toy.



A natural grass mat can be cut up in pieces that can be used as toys for parrots to shred.



Byrd



Elvis

Dollar stores are a great place to shop for items that can be turned into parrot toys. I bought these party favors at a dollar store thinking they had possibilities for becoming parrot foot toys.



I discovered the tops of the party favors came off. Not only will this make a good foot toy, it also provides another foraging opportunity.

I placed dry treats like nuts and seeds in some. I put small pieces of wood or beads in others.

And I gave them to the parrots. All three of the larger parrots, Elvis, Ditto and Buddy played with them and figured out how to open them and get to the items inside the foot toy.



3 TOY MAKING 101

Thrift stores are another place you can find parrot toys if you are in the right frame of mind when shopping there. As you go down the aisles of the thrift store look for children's toys, baskets, boxes, books, etc.; anything that you can take home to use as a toy for your parrot.



This is a thrift store find turned into a shredding toy for Gracie by adding twigs and attaching it to the cage bars with zip ties.



Gracie worked at chewing on the twigs and then shredding the basket until there was practically nothing left.



Leanna Rein gave me this odd shaped basket. Another thrift store find. I filled it with a variety of foot toys or toy parts and added in some shredded paper.

Then I fastened it to the bars of Ditto's cage with zip ties. Another quick, easy to make toy.



3 TOY MAKING 101

Walking down the aisle of the grocery store, I noticed the snack size boxes of raisins and thought what a great foot toy. Instead of buying the big box of raisins as I normally would have, I bought several of the snack size boxes. I emptied all the raisins out of them and into a Tupperware container to use in cooking and add to my morning oatmeal.

Then I spent one evening filling all the raisin boxes with any number of things. Pellets, puffed kasha cereal, nuts, beads, small pieces of wood, and so on. In short time I had a cache of foot toys that also served as foraging toys.



An empty Jell-O box is a foraging toy for Elvis.

3 TOY MAKING 101

Try networking with like minded people to further develop your toy making skills. There is usually a bird club or parrot rescue organization in almost any area of the country.

Members of The Alaska Bird Club gathered together at Leanna's house and she taught us how to make "Hanging Perch Cubes" out of natural wood branches.



This is a fun hanging toy that can be made for birds of all sizes. The sections of the cube are meant to be chewed and are easily replaced. These "Hanging Perch Cubes" can be used indoors or outside in an aviary.

Detailed instruction for making one of these hanging wood perches can be found in the "How To" section at www.alaskabirdclub.org.



4

MORE TOY IDEAS



Tiny, outside swinging from her Birdy Bella toy.

There are always ready made toys that you can purchase from a pet store, an online site specializing in parrot toys, or sometimes find at a store specializing in children's toys.

4 MORE TOY IDEAS

I remember years ago shopping for a toy with my young nephew, Adam. I had promised him a trip to the toy store where he could pick out any toy he wanted. Adam wanted a fire truck. That should be easy to find, I thought. After what seemed like an agonizingly long time in the store spent looking at countless number of fire trucks, I picked one up, showed it to Adam and asked if this one would do? No, he didn't want that one. "Why not, what's wrong with this one?" I asked, wanting to get this over with and go to lunch. Adam looked up and said, "But Aunt Kris, the doors don't open and the people don't come out." Adam was right, this truck wouldn't do. It was just a vehicle painted red with a ladder on it. It was not functional. Adam wanted a fire truck he could "play" with. Today when I go to purchase a toy, whether it be an infant, child or pet toy; I always examine it to see what function it has for the intended recipient.

You can find a number of things at a children's toy store that also serve as parrot toys. Legos make great foot toys. I'm satisfied my parrots won't ingest the small Lego pieces. But if this is a concern, Legos are available in larger sizes. They are usually sold in kits advertised for children under 3 years of age.

I found this box of ZOOB snap together pieces at a specialty toy store. The pieces are large enough you don't need to worry they might ingest them. They are also sturdy and fit tightly together so it is challenging for the bird to try and disassemble them.



I added a sunburst wheel toy part to the ZOOB parts and created the foot toy shown below. Elvis keeps turning the wheel and trying to get the ZOOB pieces apart to get at the plastic sunburst wheel.

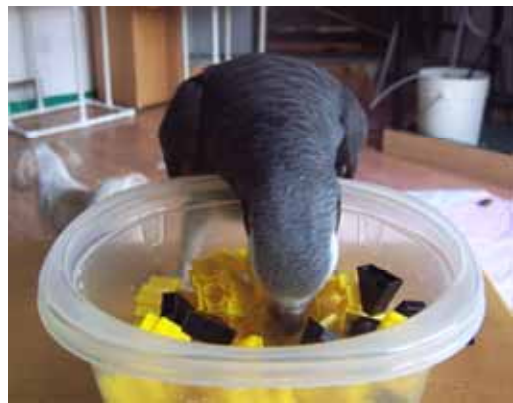


4 MORE TOY IDEAS

I discovered these Vecta Blocks at a Toys-R-Us. They have a number of uses. And they are fun to assemble. Fun for you, fun for the birds.



Put a few together to make a foot toy.



I can't put them together fast enough for Buddy. He's decided to help himself.



Or you could use the individual blocks and incorporate them into a hanging toy.

4 MORE TOY IDEAS

Another toy store find was this Barrel of Monkeys toy. Buddy quickly learned how to take the top off and toss out all the monkeys. I made it a bit more challenging for him by taping the lid shut with masking tape.



The barrel can be filled with other items in addition to the monkeys that come with it.



4 MORE TOY IDEAS



Zeke, Margo Rose's Medium Sulfur Crested Cockatoo shown here playing with a large T.U.T.T. toy.

T.U.T.T. was created by Margo's husband in an attempt to keep Zeke occupied. Zeke's favorite toy at the time was the buttons on the clickable pens, because they would disappear and reappear.

He wanted a toy that would hold Zeke's interest and not be destroyed too easily. After several tries, the T.U.T.T. was born.

Margo Rose volunteers as a PBAS list serve thread leader and she owns Roses Pet Emporium (www.rosespet.com). I asked Margo if she had a favorite picture of a parrot playing with a toy and she sent me these photos.

I'm here to tell you this is a fantastic foot toy. T.U.T.T.—The Ultimate Tongue Toy. Trying to remove the sliding bead inside the PVC housing is guaranteed to hold the interest of almost any parrot.



Cicero, Joan Myers Jardines parrot shown here playing with a small T.U.T.T. toy.



As soon as I saw the photos Margo sent me, I knew this was a toy I had to get for Buddy.

I'm glad ordered several because Buddy, Ditto and Elvis all love this toy.

I like both sizes, but the small one fits inside the Hide-A-Treat toy or a raisin box. It's like I get extra credit in "providing foraging opportunities" because I make my guys work to get at the toy— and they also spend a good deal of time trying to get that sliding bead out of the toy once they get it.

4 MORE TOY IDEAS



A Lovely Bunch of Coconuts is a toy that provides a parrot with exercise and foraging opportunities as they climb over the toy to get at whatever you put inside the holes.

Caroline Moore is always looking for ways to keep her energetic little parrots busy. She purchased one of these toys for Icarus and Daedalus. She stuffs the holes with fruits, vegetables, toys, newspaper and any other item she can think of that will interest her birds.



This is a rather large toy, but as you can see in the photos, neither one of these birds has trouble maneuvering the toy to get at the items stuffed in the coconut holes.

4 MORE TOY IDEAS



Finding toys that were of interest to the smaller parrots was a new learning experience for me. We found a few and are always on the look out for more.

Gracie plays with this small “Flutter Bug” toy I purchased from Beakapoo Bird Toys.



Tiny likes swinging from chains and chewing on small beads. I made this toy using small chain and some small beads. You can make one yourself or find similar toys online.



When I first brought Tiny and Boo home, I had little in the way of toys for small parrots. I had heard they liked mirrors. My friend Debbie Ross suggested I use an old CD for a mirror until I could find some proper bird toy mirrors at the pet store.

We’ve made some progress with finding toys and activities for small parrots since those early days.

5 TRAINING WORKS!

In her column, “From the Editor’s Perch”, Good Bird magazine volume 2-1, Spring 2006, “How to be a Successful Trainer”, Barbara Heidenreich writes:

“When you look at the lengthy lifespan of a parrot, it certainly makes sense to invest even a small amount of time in training to be more likely to have a well behaved and happy avian companion. Training works. It works to address behavior problems. Training can make medical behaviors stress free. Training can reduce or eliminate aggressive behavior. Training can be fun and enriching for both you and your parrot. I often describe training as addicting. There is something to be said for the “rush” one feels when training success is achieved. Add a little structure and dedication to your training routine to successfully attain your training goals and enjoy the rush!”



Barbara Heidenreich training a Congo African Grey parrot to step on a scale.

Barbara Heidenreich has been a professional in the field of animal training since 1990. She owns and operates a company, Good Bird, Inc., (www.goodbirdinc.com) that provides behavior and training products to the companion parrot community. These products include Good Bird magazine, books, videos and behavior and training workshops. She is the author of “Good Bird! A guide to Solving Behavior Problems in Companion Parrots” by Avian Publications and also “The Parrot Problem Solver, Finding Solutions to Aggressive Behavior” by TFH Publications. She is past president of the International Association of Avian Trainers and Educators (www.IAATE.org).

Barbara’s experience also includes consulting on animal behavior and training in zoos and other animal related facilities. Her specialty is free flight bird training. She has been a part of the development and production of more than 15 different free flight education programs. Barbara continues to provide consulting services to zoos, nature centers and other animal facilities through her other company Animal Training and Consulting Services (www.ATandCS.com). In her career she has trained animals, trained staff, and/or presented shows at facilities around the world.

Barbara’s two videos, “Parrot Behavior and Training (Series Part 1)” and “Training your Parrot for the Veterinary Exam (Series Part 2)” are exceptional aids for trainers giving detailed instruction on how to shape behavior.

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Shaping New Behaviors

By Susan G. Friedman, Ph.D.

A behavior can't be reinforced until it occurs, which could present a problem when one needs to teach a new behavior to a parrot. Waiting for the behavior to occur by happenstance and capturing it with reinforcement might be an option but some behaviors occur too infrequently or not at all. The solution to this problem is known as shaping, technically called differential reinforcement of successive approximations. Shaping is the procedure of reinforcing a graduated sequence of subtle changes toward the final behavior, starting with the closest response the bird already does. Below are two examples of shaping plans, one for teaching independent toy play and the other, bathing. The reinforcers listed in each plan and the specific approximations are just examples and need to be customized according to the preferences and comfort level of each individual bird. Shaping, as with all behavior change programs, is a study of one.

Shaping Plan 1 Playing with Toys

1. Final Behavior: Independent toy play.
2. Closest behavior bird already does: Looks at toy.
3. Reinforcer for each approximation that meets the criterion: Safflower seeds and praise.
4. Tentative approximations:
 - a. Look at toy
 - b. Move toward toy
 - c. Touch beak to toy
 - d. Pick up toy with beak
 - e. Touch foot to toy
 - f. Hold toy with foot while manipulated with beak
 - g. Repeat previous approximation for longer durations



Shaping Plan 2 Triggering the Bathing Response

1. Final Behavior: Step into shallow water dish.
2. Initial behavior: Looks at water dish.
3. Reinforcer for each approximation that meets the criterion: Applause and praise.
4. Tentative steps:
 - a. Look at dish
 - b. Face dish
 - c. Take a step toward dish
 - d. Take two steps toward dish
 - e. Walk up to dish
 - f. Look at water in dish
 - g. Lift foot next to dish
 - h. Touch water in dish with foot
 - i. Step into dish with one foot
 - j. Step into dish with both feet
 - k. Walk around in dish



*Nellie enjoys a bath.
Photo credit: Charlotte Cates*

How Shaping Works

Implementing a shaping procedure requires noticing the subtle, natural variation in the way behaviors are performed within a response class (called an operant class). For example, a parrot naturally lifts its foot a little differently every time (left or right; high or low; fast or slow, with toe movement or without, etc.). Typically this variation is unimportant and it is simply classified as one behavior, or operant class, called “lifting a foot”. However, this subtle variation is exactly what allows us to shape a parrot to wave with the final criterion being a foot lifted fast, held high and toes opened and closed.

Shaping starts by reinforcing the first approximation every time it is offered, until it is performed without hesitation. Next, an even closer approximation is reinforced, at which time reinforcement for the first approximation is withheld. Once the second approximation is performed without hesitation, an even closer approximation is reinforced while withholding reinforcement for all previous approximations. In this way, the criterion for reinforcement is gradually shifted, incrementally closer and closer to the target behavior. Finally, every instance of the target behavior is reinforced.

If the learner experiences difficulty at any criterion, the trainer backs up and repeats the previous successful step, or the trainer can reinforce even smaller approximations. Ultimately, it is the parrot who determines the exact sequence and pace of the shaping plan. This is where sensitivity and experience is required on the part of the trainer to observe the nuances of behavior.

Adding the Cue

With shaping toy play and bathing, the toys and water dish are the antecedents that set the occasion for the respective behaviors. For other behaviors, a cue from the trainer (also called a discriminative stimulus or S^D: pronounced ess-dee) can be added to signal the behavior. To add a cue, start by introducing it while the behavior is occurring. Next, gradually deliver the cue earlier and earlier until it is signaled *before* the behavior. Last, reinforce only cued instances of the behavior and ignore all others. This will establish the relationship between the cue and behavior, called stimulus control. When a behavior is said to be under stimulus control, it is emitted after the cue and rarely or not at all when the cue is absent.

Shaping Touch-to-Target

Regarding cats, Catherine Cawmer (2001) describes the technique known as targeting this way: “If we could get a cat to touch his nose to a stick on cue what could we do with that behavior? The answer is a question: What couldn’t we do with it?” (p.57) Targeting is the behavior of touching a body part (e.g. beak, wing, or foot) to a designated object or mark and it is taught easily to parrots with shaping. By teaching birds how to target the end of a wooden dowel with their beaks, caretakers can predict and control the bird’s movements. For example, an untamed bird can be taught to target a stick while inside its cage, enabling the caretaker to safely increase interaction with the bird, deliver positive reinforcement and establish two-way communication. A bird that refuses to come off the top of his cage can be targeted to a perch inside it; a wary bird can be targeted into a travel crate for veterinary visits; and an aggressive bird can be quickly redirected to the target to distract it from biting. Also, enrichment behaviors can be taught with targeting such as turning in a circle, climbing up and down ladders, and ringing a bell.

The Sky’s the Limit

Target training is an important basic skill for all companion parrots as it opens the door to all sorts of positive reinforcement and management opportunities.

5 TRAINING WORKS!

By teaching birds how to target the end of a wooden dowel with their beaks, caretakers can predict and control the bird's movements.



*JD learns to target.
Photo Credit: Gay Noeth (onafricanwings.com)*

With shaping we can theoretically train any behavior within the biological constraints of the learner. Husbandry, medical and enrichment behaviors can be shaped to reduce stress and increase physical and mental stimulation. Birds can learn such behaviors as raising each foot for nail trims, going in and out of crates, staying calm wrapped in towels, flying to designated perches, and playing basketball. Shaping can also be used to change different dimensions of existing behaviors such as duration, rate, intensity, topography, and response time.

Not surprisingly, problem behaviors are often unwittingly shaped as well. We inadvertently teach our birds to bite harder, scream louder and chase faster through the subtle mechanisms of shaping. For better and for worse then, shaping is endlessly applicable to teaching captive parrots, making it the sharpest of all training tools. Its uses are limited only by one's imagination and commitment to learning how to use it well.

Susan G. Friedman, Ph.D., is a psychology professor at Utah State University. An applied behaviorist for more than 25 years, her area of expertise is learning and behavior, with a special emphasis on children's behavior disorders. Prior to living in Utah, Susan was a professor at the University of Colorado after which she lived in Lesotho, Africa for 5 years. While there, she directed the first American School of Lesotho.

Susan has written on the topic of learning and behavior for popular parrot magazines and is the first author on two chapters found in G. Harrison's Avian Veterinary Compendium and A. Leuscher's Manual of Parrot Behavior. Several of her articles can be found on the web at (www.thegabrielfoundation.org/HTML/friedman.htm). Susan has taught animal behavior workshops with Steve Martin at his ranch facility (www.naturalencounters.com) and several zoos around the country; speaks at bird clubs and conferences; and is a core member of the California Condor Recovery Team. Her well-attended on-line course, "Living and Learning with Parrots: The Fundamental Principles of Behavior", is described at (www.behaviorworks.org).

When asked how she became interested in working with companion parrots in particular, Susan explains with a wink, "I have always enjoyed working with juvenile delinquents."

5 TRAINING WORKS!

At the seminar in Scarborough ON, Canada, “Parrot Behavior and Learning: A Step Up and Beyond”, Pat Phillips’ Moluccan Cockatoo, Bertie, demonstrated doing some tricks that she’d learned previously in clicker training. I met Carolyn Clark at the seminar. She owns Carolark: The Centre for Applied Canine Behavior (www.carolark.com). Carolyn took these photos and sent them to me. I’m happy to include them here for you to see as they show how much Bertie enjoys the training session.

Bertie puts money in her piggy bank.



And she cleans up the table.



Puts away all the items and neatly places the lid on the jar.



5 TRAINING WORKS!

Rachael provides plenty of foraging opportunities for her cockatiels and I appreciate her sharing some of those ideas with us. She also considers her clicker training sessions with her birds another way to provide enrichment. Here she shares some photos of Bumble B. demonstrating some of the tricks he has learned.



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POSITIVE FALLOUT OF TRICK TRAINING

by Gay Noeth

Three years ago I raised a male Red Bellied parrot. He was fairly unpredictable right from the start. I figured all would be well when he went to his new home but that wasn't to be. Ultimately, I brought the bird back to my home, to let him be the "free spirit" he appeared to be.

He would tolerate no handling by humans. A step up request would almost always involve some bloodletting. He enjoyed sitting on you providing you never attempted to touch him. I let him be. Again, I had the notion he was a free spirit so I allowed him to live unhindered, rarely caged, fully flighted, just free to do his own thing. Here lies one of the problems with putting a construct onto a bird (or any animal). Because I had classified him as a free-spirit I basically wrote off his behavior, allowing it to continue and not taking any steps to correct or change it.

As life would have it, you can't usually safely totally leave a bird free in our homes. It was necessary at times for him to step up onto our hands for his own safety. One day his bites, when asked to step up, reached the point where they could no longer be ignored. Something needed to be done. After conferring with Dr. S. Friedman about Rico, she explained that he sounded like a bird that had no idea how to act upon and within his environment. I had allowed the biting to continue. I had never shown him another way. He had no way of knowing there was another way.

Generally when you look at problem behaviors you focus in very closely and determine the antecedents (the set up) to the behavior and also the consequences (pay-off) for the behavior. What is maintaining the behavior? What sets it off? By the time I decided I needed to work on the problem, I couldn't determine a specific antecedent and consequence. I actually decided that the biting initially started for a reason but the biting may have drifted away from that reason over time.

It may have started from a fear of hands; it may have started as a way to say "No". The original consequence that reinforced the biting into becoming a learned behavior was probably gone. Past consequences had taught the bird to bite. Past consequences form part of the antecedents. It was possible that the biting was now due to not knowing how to interact correctly within his environment. Biting got attention when attention was what was being sought. Biting moved the hand away when distance is what the bird wanted. In other words the biting had become multi-functional.

It no longer mattered to me why he was biting. It was the only thing he knew. A bite gets the human's attention for whatever reason. Rico had just never been shown anything else, nor was he ever taught that biting was unacceptable.

It was explained how I would need to make a special project of Rico, how I would need to teach him about positive outcomes and better ways to act within his environment. To begin to do this, I decided to start doing some trick training with him, as I was also doing this for fun with a Meyers parrot.

It was a shaky start. Rico was a bird that would casually bite for any reason and now I was in his face, requesting behaviors, trying to give food reinforcers. I discovered passing the nut bits from my fingers, was not going to work even though Rico loved nut bits. Instead he would bite my fingers. What did seem to work was having a flat, open palm and the treat resting there.

Having never worked with a bird that bites like Rico, we had some bad days initially. At one point I again wrote Dr. Friedman and said I couldn't do this. I was getting bit more than ever. I even went so far as to say, "It's OK, he was fine the way he was, he can remain that way". She encouraged me to continue for the sake of Rico but to make my sessions much shorter and more often throughout the day and also to pay even closer attention to any teeny difference I saw in the body posture, feathers or eyes. I sucked in the advice and began again.

5 TRAINING WORKS!

I tried doing 4 sessions a day. But that didn't always work depending on other responsibilities and how Rico was feeling. I always accomplished at least three sessions. Session times varied between three minutes and up to eight minutes. I wanted to always end on a good note, and we did most of the time. Note: If the training session sours before you quit, you know you have pushed the bird too much or too long. I learned quickly how to tell what was too long for Rico.

Within 2 days I discovered that he was no longer biting at my fingers if I offered him the nut piece from them. Wow, a change of behavior already!!!! I was thrilled!

Our first days were doing simple things. Waves and step ups were the behaviors I requested the most. However once while asking for the wave I was able to capture him stretching his wing out. I put it on cue and thus added another behavior to his repertoire. When we first moved on to props (ball for basketball) I again had some difficulty, as the ball seemed to bring out a different attitude with Rico. I quit using it for a while and went back to the three simple behaviors he already knew. I then introduced a target stick. This of course was just something for Rico to grab at first but he very quickly learned that grabbing earned him nothing whereas touching earned him a reward. I slowly brought the ball back into training and did extremely short sessions with it until he would put the ball in the hoop.

I learned through our close training contact how his eyes would quiver before they even dilated preceding a bite. When I saw the quiver, the training session was over. Through this exercise of training I now have a bird that has only bitten me once in the last seven months because I am far more attuned to what he is telling me and because he has learned what positive reinforcement in his life is and how he can earn it through our one on one times. While he still doesn't desire to be touched or pet, which is his decision and perfectly fine with me, he still has a way of being social and earning reinforcers. In my opinion Rico's training has paid off.



Suggest Reading and Resources on Behavior, Training and Enrichment

To begin this list, I'd like to quote Dr. Susan G. Friedman, "I often hear the comment that there are too few resources besides popular magazines to help us live and learn with parrots. It's not so! But you do need to know where to look and you do need to be a good at generalizing information across different disciplines. Below are some of our favorite resources – by no means an exhaustive list. **Read smart.** Be a skilled skeptic. Look for data and grounding in the science of behavior. Common sense and cultural knowledge are not enough to be an expert about learning and behavior. Thanks to Theresa Zakutansky and Gay Noeth for helping to compile this list.

These resources are listed in alphabetical order. If you can only read one book, do start with Karen Pryor's *Don't Shoot the Dog*. It will provide the foundation that will make all the other readings more meaningful and improve your ability to critique the plausibility of other experts. Unless otherwise noted, many of these books are available at **The Bird Brain**, which is associated with The Gabriel foundation; so, if you buy them there, you will be doing two good things at once! See <http://www.thebirdbrain.com/>. Some of the books are only available from the authors, as noted."

Books/Magazines:

A Parrot for Life, by Rebecca O'Conner. TFH Publications (2007) ISBN #0793805821

Animal Training: Successful Animal Management through Positive Reinforcement, by Ken Ramirez. Shedd Aquarium Society. (1999) ISBN# 0961107499

Behavior Analysis and Parrot Learning by Susan Friedman, Steve Martin and Bobbi Brinker in: *Manual of Parrot Behavior*. Andrew Luescher, ed. Blackwell Publishing. (2006). ISBN # 0813827493

Clicking With Birds: A Beginners Guide to Clicker Training Your Companion Parrot
by Linda Morrow. Available at www.avi-train.com/manual.html.

Clicker Training with Birds: Getting Started by Melinda Johnson. Sunshine Books, Inc. (2003).

Culture Clash by Jean Donaldson. James and Kenneth Publishers. (1997). ISBN # 1888047054

Do Animals Think? by Clive D. L. Wynne. Princeton University Press. (2006). ISBN # 0691126364

Don't Shoot the Dog! The New Art of Teaching and Training (3rd revised edition) by Karen Pryor Ringpress Books. (2002). ISBN # 1860542387

First Course in Applied Behavior Analysis by Paul Chance. Waveland Pr., Inc. (2006). ISBN # 1577664728

Good Bird Magazine: Empower the Human/Animal Bond with Positive Reinforcement. Barbara Heidenreich, Editor. Published by Good Bird, Inc. www.goodbirdinc.com

Here Kitty, Kitty, Catherine Crawmer on Training Cats by Catherine Crawmer. ISBN # 0971081506
Available at: "Crawmer's Animal Training", PO Box 364, West Sand Lake, NY 12196

**Suggest Reading and Resources on
Behavior, Training and Enrichment**

Books/Magazines (continued):

How Dogs Learn by Mary Burch, Ph.D. & Jon S. Bailey, Ph.D. Howell Book House. (1999). ISBN # 0876053711

How to Think Like a Behavior Analyst, by Jon S. Bailey, Ph.D. & Mary Burch, Ph.D. Lawrence Erlbaum Assoc Inc; 1 edition (2006) ISBN # 0805858881

The Mismeasure of Man by Stephen J. Gould. W. W. Norton & Co. (1996). ISBN # 0393314251

The Power of Positive Parenting: A Wonderful Way to Raise Children by Glen Latham. P & T Ink. (1994). ISBN# 1567131751

The Parrot Problem Solver: Finding Solutions to Aggressive Behavior by Barbara Heidenreich. TFH Publications (2005) ISBN # 0793805627

The Writings of Susan Friedman, PhD. at: <http://www.thegabrielfoundation.org/html/friedman.htm>

Web Links:

The Animal Behavior Management Alliance at: <http://www.theabma.org/home.asp> The Animal Behavior Management Alliance, (ABMA) is a not-for-profit corporation with a membership comprised of animal care professionals and other individuals interested in enhancing animal care through training and enrichment. The ABMA is intended to be nurturing and informative, and was created to serve trainers, handlers, and keepers of animals, irrespective of species, with information and assistance in the behavior management of their charges.

Cambridge Center for Behavioral Studies: www.behavior.org/animals/index.cfm This link is great for all types of writings on behavior, Skinners writings and ABA. What I also like is it includes a glossary of terms under "About Behavior Analysis." And has a news letter that is periodically mailed out for those who subscribe (it is free).

Disney Animal Kingdom <http://www.animaltraining.org/>

Feeding Feathers Yahoo Group: <http://pets.groups.yahoo.com/group/FeedingFeathers/> . Welcome to Feeding Feathers. We are a place for those who have serious questions regarding the feeding of their companion parrots, some small confusions, or just want to get an idea as to HOW to proceed to do the best possible job in preparing good nutrition for their avian companion.

Gabriel Foundation at: www.thegabrielfoundation.org . Julie Weiss Murrad, president. A nationally renowned Parrot Welfare Organization that provides not only rescue, sanctuary and rehabilitation services for parrots, but educational materials and resources to the public as well. Their *Birdy Basics* online course is taught monthly, and provides a wealth of information for new parrot caretakers.

**Suggest Reading and Resources on
Behavior, Training and Enrichment**

Internet Resources (continued):

Gay Noeth's article on bringing home a new parrot.
<http://onafricanwings.com/GettingANewBird.htm>

International Association of Avian Trainers and Educators at: www.IAATE.org

Karen Pryor's web site on clicker training at: <http://www.clickertraining.com/>

Living and Learning with Parrots: the Fundamental Principles of Behavior. Online course taught by Susan Friedman, PhD at: www.behaviorworks.org .

Natural Encounters, Inc. Steve Martin, President. Papers and Presentations, week long training course in Winter Haven Florida. www.naturalencounters.com

PBAS: Parrot Behavior Analysis Solutions online work group on Yahoo Groups. NOT A CHATROOM! <http://tech.groups.yahoo.com/group/ParrotBAS/>

Pickin' Parrots Yahoo Group: <http://pets.groups.yahoo.com/group/pickinparrots/>

If your parrot is picking now, has picked in the past or you just want to become more knowledgeable about picking, you are welcome to join "Pickin' Parrots". This is a place for research, information, emotional support and sharing good and/or bad experiences.

Web Links On Enrichment:

American Association of Zoo Keepers
http://www.aazk.org/committees/enrichment/comm_enrichment_title.php

Bronx Zoo http://www.bronxzoo.com/bz-about_the_animals/260687/262336/tpresskit/262508
http://bronxzoo.com/bz-exhibits_and_attractions/262336/tpresskit/262589

Cleveland Metro-Parks Zoo http://www.clemetzoo.com/whats_new/enrichment.asp

Disney Animal Kingdom Theme Park- enrichment program <http://www.animalenrichment.org>

Fort Worth Zoo <http://www.enrichmentonline.org/browse/index.asp>

Honolulu Zoo-Contains video's of enrichment ideas
http://www.honolulu zoo.org/enrichment_activities.htm
http://www.honolulu zoo.org/zoo_videos.htm

Houston Zoo Animal Enrichment Program <http://www.houstonzoo.org/en/cms/?1707>

5 TRAINING WORKS!

Suggest Reading and Resources on Behavior, Training and Enrichment

Web Links On Enrichment (Continued):

Lincoln's Folsom Children's Zoo http://www.lincolnzoo.org/animal_enrichment.html

Lincoln Park Zoo http://www.lpzoo.org/animals/Animal_Care/training.html

Royal Society of New Zealand-Some great video's of enrichment toys for Kea's
http://www.rsnz.org/education/bp_chall/2006/zoo.php

Smithsonian National Zoological Park
<http://nationalzoo.si.edu/ConservationAndScience/AnimalEnrichment/>

Toronto Zoo Enrichment Articles
http://www.torontozoo.com/meet_Animals/enrichment/enrichment_articles.htm

Videos:

Captive Foraging: The Next Best Thing to Being Free by Dr. M. Scott Echols. Available at
www.thebirdbrain.com.

Parrot Behavior and Training (Series Part 1) by Good Bird Inc. Available at www.goodbirdinc.com.

Training Your Parrot for the Veterinary Exam (Series Part 2) by Good Bird Inc. Available at
www.goodbirdinc.com.

CLOSING THOUGHTS

In August of 2004 I brought my very first parrot into my home, a three year old Meyer's parrot I named Byrd. It was an impulse purchase from a pet store. Was I prepared to bring this parrot into my home and properly care for her? A resounding no! In fact I was certainly clueless. Do I regret it? Absolutely not!

In the very beginning, Byrd preferred me to my husband, Jerry. The first time I asked Byrd to step up on my hand she did. When Jerry asked her to step up on his hand she bit him and it was a bite that hurt and bled a lot. Byrd's mission in life seemed to be to bite Jerry and drive him out of the house.

We were told to get some well known titles on parrot behavior that were considered must reads for new parrot owners. There was some good information in the books and magazines we read, but there was also information that just didn't ring true for us, such as never let her sit higher than your head because birds that are allowed to perch above your head tend to be nippy and hard to control. Or, Jerry should establish his authority with her by being assertive with his "step-up" command and if she tried to bite give her the "evil-eye".

Jerry decided to trust his instincts where Byrd was concerned primarily because he was opposed to trying anything that might place him in a position to receive a bite from her. He chose to work with Byrd on her terms, always interacting with her in a way that avoided the possibility of being bitten.

Today I'm happy to report that Jerry can transport her from her cage to her play stand in the living room and to the shower to give her a bath; but always on the wooden dowel he keeps handy, he cannot offer his hand to her and request a "step-up" without her biting him. However, on occasion he will pass by Byrd on her play stand or the kitchen counter, crook his finger and ask, "Byrd want a scratch?" Sometimes she will bend her head down to receive a scratch but there are other times that she won't and Jerry simply says "OK" and moves on.

Although we didn't know it at the time, Jerry's instincts were right on. To change the behavior of Byrd, he had to change his behavior first. He did not expect Byrd to obey a command to "step-up" onto his hand, rather he gave her a choice to step up onto a wooden dowel.

I've since graduated from Dr. Friedman's LLP course, I subscribe to Good Bird magazine and I belong to the PBAS list serve group where I continue to learn about changing behavior using the principles of Applied Behavior Analysis (ABA). I believe the positive-first teaching solutions I'm learning are a fundamental part of providing an enriched environment for my parrots.

That said, I'd like to thank you for taking the time to read The Parrot Enrichment Activity Book, Version 2.0. I hope you've found it both inspiring and thought provoking. And I'd like to conclude this book with one more article, *He Said, She Said, Science Says*, by Susan G. Friedman, Ph.D. This is one of the articles I make a point to schedule into my calendar to read again and again as I find it both enlightening and reinforcing.

Warm Regards,

Kris Porter

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HE SAID, SHE SAID, SCIENCE SAYS
S. G. Friedman, Ph.D.

“Man masters nature, not by force but by understanding. This is why science has succeeded where magic has failed; because it looked for no spell to cast over nature.” Jacob Bronowski, 1953.

“Never make a parrot do anything it doesn’t want to do.” No way, it’s *“Never allow a parrot to be in control.”* But I’m sure I read, *“Parrots are partners not subordinates.”* Well, I was taught, *“Humans must establish superior rank over their parrots.”* He said, she said, they said, we said. Will the real parrot behavior experts please stand up? The parrot owning community is in quite a state of confusion about how to best interact with our companion parrots. With all the contrary advice and argumentation, it’s no wonder so many parrots fail to thrive in our homes while we tear our hair out searching for solutions to biting, screaming and remodeling. When push comes to shove, do we shove or do we empower our birds to choose? If we empower birds to choose do we face certain parrot anarchy? In the face of such disparate opinions, there is no better arbiter than science.

The Compass

It’s not that science can be relied on to always provide the Truth. We’ve all been jerked and pulled by the capricious findings of science too many times to be so naïve. I mean, until they make up their minds about chocolate, coffee and red wine, count me in. Scientists themselves concede that a fact is only a fact until it’s replaced by a better one. However, what science does offer, far better than common sense, conventional wisdom and other ways of knowing, is a process of *self-correction over time* that is achieved by two fundamental activities – public, peer-review and verification of findings across independent groups of researchers. Thus, although what is known today may indeed change tomorrow, it is the very best, most reliable information available at this moment.

Science also helps us navigate beyond politics. Political opinions are characterized by partisan interests motivated by self-serving objectives rather than the discovery of laws of nature. Not all differences of thought or practice should be trivialized as simply a matter of politics. Sometimes disagreements really are due to one person being right and another person being wrong. Science reminds us that personal opinion is not the only psychology we need. It also has a sharp eye for naked emperors.

Confusion sometimes prevails about the value of behavior science partly because people often incorrectly use the terms hypothesis, law and theory interchangeably. Without going too far off topic, it is important to understand what scientists mean by these terms in order to know how much weight, or credibility, any knowledge claim deserves as each term denotes a different level of surety. A hypothesis is an educated guess or rational explanation of a single event based on observation, which has not yet been proved. We make hypotheses about our birds’ behavior whenever we answer the question, “Why does he do that?” Hypotheses are supported or refuted based on further observation and experimentation, which in our homes can be as straightforward as changing something we do and observing carefully what happens.

A scientific law is a statement of fact meant to explain an action or set of actions such as the law of gravity. Laws are generally accepted as valid because they have been repeatedly observed to be true. The most fundamental law of behavior is the law of effect that states *behavior is a function of its consequences*. This law is invaluable for exploring our behavior hypotheses and is discussed further below. A theory is an explanation of a whole series of related phenomena that has been verified multiple times by independent scientists, like the theory of relativity.

This is really important: People often misstate that something is “just a theory” meaning that it’s an unproven guess and may even lack credibility. However, in science terminology, theories have been proven and are generally accepted to be valid by the scientific community as a whole. Scientists may continue to refine them but theories are rarely replaced entirely.

The crux of behavior theory is that learning is largely determined by external, environmental influences, and the laws of learning are general in nature, that is, they transcend species and situations. Behavior theory is not “just a theory.” It is a *Theory* resulting from one hundred years of observation and experimentation across hundreds of species, independent researchers, and different situations.

Applied Behavior Analysis

There are many different scientific disciplines each with its own focus and methods that contribute to understanding different pieces of the behavior puzzle. There is ethology, ecology, animal science, zoology, social psychology, cognitive psychology and neuropsychology just to name a few. The science most closely associated with learning theory has come to be known as behavior analysis, the science of behavior change that studies functional relations between behavior and environmental events. Applied behavior analysis (ABA) is the behavior-change technology of behavior analysis. It is the implementation of behavior principles and methods to solve practical behavior problems. The hallmark of ABA is changing behavior by providing carefully arranged antecedents and positive reinforcement consequences. It’s a simple, effective model based on the smallest, analyzable unit of behavior, the ABCs.

Antecedents (A) are the stimuli, events and conditions that occur immediately before a behavior (B) occurs. Antecedents function to set the stage for or promote particular behaviors. For many companion parrots, an offered hand is the antecedent that promotes stepping up. For other parrots, an offered hand is an antecedent for running away. We would say that offering a hand is functionally related to step up behavior for some birds and running away behavior for others. Consequences (C) are the stimuli, events or conditions that immediately follow a behavior. They are functionally related to the behavior they follow if their occurrence depends on the behavior occurring first. Consequences influence the frequency of future behavior, that is, behaviors that resulted in valued consequences in the past are repeated in the future; behaviors that resulted in aversive consequences in the past are modified or suppressed in the future. Consequences are nature’s feedback loop that allows all animals to sensitively adapt our behavior moment by moment, throughout our lives. The consequence for a behavior today forms the motivation for doing, or changing, the behavior tomorrow.

Taken together, we have the ABCs (antecedent, behavior, consequence) to analyze the behaviors we want to understand, predict and change. After careful observation of the target behavior, the one you want to change, ABC analysis is the next step in solving behavior problems. Identifying antecedents and consequences related to specific behaviors can lead to important clues about what currently reinforces the behavior as well as changes you can make to modify it or teach a new one. ABC analysis, also known as functional assessment/analysis is an important topic in its own right but to give you a quick idea of the power of this simple tool here is one example.

Grace wants to understand why Sam, her parrot, suddenly refuses to step up from the top of his cage. Her hypothesis is that he is displaying height dominance and her solution is to establish herself superior in rank by throwing a towel over him to make him come down. Let’s see what insights functional assessment offers about the situation before Sam started refusing Grace’s request:

Setting events: Sam is playing with his bell on top of his cage.
Antecedent: Grace offers her hand to Sam.
Behavior: Sam steps up.
Consequence: Grace returns Sam to his cage.
Prediction: Sam will step up less in the future to avoid his cage.

There are two important points to consider about this assessment. First, behavior is a function of its consequences; that is, past consequences explain current behavior. Therefore, this analysis suggests a strong alternative hypothesis to rival height dominance: Sam currently resists stepping up to avoid the past consequence of being returned to his cage. Second, to change behavior we can 1) change the antecedents to make the right behavior easier, and/or 2) change the consequences so that doing the right behavior is more valuable to the bird than not doing the behavior.

There's usually more than one way to solve a behavior problem and each solution should be customized to the needs and learning history of each individual learner, as each bird is truly a study of one. In this case, even a couple of small changes will likely improve Sam's response to this request. For example, one possible antecedent change is to only offer the cage top play area to Sam when there is ample time for him to tire of playing with the bell before requesting that he step up. One possible consequence change is to transform the association between stepping up/going into the cage, to stepping up/enjoying a small treat or head scratch. A special treat or foot toy planted in the cage ahead of time, one that is only available after returning to the cage, will add incentive to performing the desired behavior as well. Behavior change strategies are limited only by our imagination and our commitment to using the most positive, least intrusive, effective strategies.

The Proof for Empowerment

With this foundation then, we are ready to turn back to the questions posed at the beginning of this article, which comes down to this: Does science have an answer to the current disagreement about empowerment vs. subordination? If we allow parrots control over their environments will they succeed better in captivity or will we suffer certain parrot anarchy? The answers: First, yes science has an answer – to the greatest extent possible all animals should be empowered to exercise personal control over significant environmental events. Second, yes parrots ability to thrive in captivity is improved when they are empowered; and no, we don't need to suffer certain parrot anarchy or lower our standards for good companion parrot behavior if we become more knowledgeable about learning and behavior and skilled at implementing the teaching technology of applied behavior analysis. These assertions are firmly based on the results of several lines of scientific inquiry that span many decades, species, situations and independent researchers.

One fascinating demonstration of the emotional gain that comes from having control over one's environment comes from experiments with human babies only 3 months old (Watson, 1967, 1971). In these experiments, the babies were lying in their cribs with their heads resting on pillows. Under the pillows of the first group was a switch that operated a mobile whenever the infants turned their heads. The babies in the second group had no control over their mobiles although their mobiles automatically moved as much as the first groups did. Positive reinforcement theory predicts two outcomes: 1) Frequency of head movements in the first group will increase since doing so is reinforced by the mobiles' movement (the mobiles' movement is dependent on what they do). 2) The frequency of head movements in the second group will not increase since doing so is not reinforced (the mobiles move independently of what the babies do). Indeed both hypotheses were confirmed. However, other differences were observed in the two groups of babies that were very surprising. Initially, both groups of babies responded to the moving mobiles by cooing and smiling, a reasonable measure of well-being. These happy responses continued throughout the experiment for those babies who controlled their mobiles. For the babies who did not

control their mobiles, the cooing and smiling quickly stopped. Apparently, one part of what makes consequences reinforcing is the power to control one's own outcomes.

Another relevant line of research is the free food phenomenon, also known as contrafreeloading. With contrafreeloading, animals choose to perform a learned response to obtain reinforcers even when the same reinforcers are freely available. For example, given a choice between working for food and obtaining food for free, animals tend to choose to work, often quite hard, with a bowl of free food placed right next to them. This phenomenon has been replicated with rats, mice, chickens, pigeons, crows, cats, gerbils, Siamese fighting fish, and humans (Osborne, 1977); starlings (Inglis & Ferguson, 1986); Abyssinian ground hornbills and bare-faced currasows (Gilbert-Norton, 2003); and *captive parrots* (Colton, et al., 1997). There are several interesting hypotheses explaining why this phenomenon occurs. For example, contrafreeloading behavior may be motivated by innate foraging behaviors that are otherwise frustrated in captivity; animals may be engaging in information seeking behaviors as they work to predict the location of optimal food sources; or they may be responding to the additional reinforcement provided by stimulus changes when one works for food such as the sound of a hopper. None-the-less, animals' preference to behave in ways that impact their environment is demonstrated once again. Animals are built to behave not to be passive.

A third area of scientific inquiry, called learned helplessness, adds additional support to the theory that personal control over significant environmental events motivates animals to behave healthfully. This phenomenon further demonstrates that a lack of control can have pathological effects including depression, learning disabilities, emotional problems (Maier & Seligman, 1976), and suppressed immune system activity (Laudenslager, et al., 1983). Learned helplessness occurs when an animal is at first prevented from escaping aversive stimuli. Later when escape is possible the animal continues not to respond as if helpless, choosing instead to give up and remain passively in the presence of the aversive stimuli. This research has been replicated with cockroaches (Brown, Hughs & Jones, 1988), dogs, cats, monkeys, children and adults (Overmier & Seligman, 1967). Further, Seligman's (1990) research suggests that we can "immunize" learners from the effects of lack of control by providing them with experiences in which their behavior is effective. In this way, the effects of exposure to uncontrollable outcomes, which is inevitable in all our lives to some degree, can be minimized.

From the confluence of these three related research areas, it seems obvious that parrots who are empowered to make important decisions, such as when to exit or enter their cages or go on and off their caregiver's hands, will indeed experience greater behavioral and emotional health in captivity than those who are prevented from being so empowered. Additionally, there is every reason to assume that a lack of control explains some, if not many, of the pathological behaviors we see in parrots such as self-mutilation, mate killing, and phobias.

Positive Reinforcement Training

Animal trainers often refer to positive reinforcement training as reward training or operant conditioning (OC). The very word *operant* denotes choice, that is, the animal is the *operator* of its environment and operates in whatever way it chooses. Animals' biology organizes our choices such that we operate to get valued consequences (positive reinforcers) and to avoid aversive ones (negative reinforcers and punishers). When we add to OC the additional steps of careful behavior observations, functional assessment and databased decision making we have all the elements that comprise ABA.

With positive reinforcement training we teach by offering contingencies for behavior. For example, *if* you step on my hand (B), *then* you get a consequence (C) of value to you such as a treat, activities outside of your cage, and attention. When a parrot refuses to step up, it chooses not to get the consequences that result from stepping up. When this happens it's evidence that the current consequences for stepping

up are not sufficiently reinforcing for this individual at this time. The next step is to consider how you can rearrange the antecedents and offer different consequences so that they are motivating (reinforcing) to this individual bird. Perhaps you are asking for too big of a behavior and need to reinforce smaller approximations such as tiny movements toward your hand; perhaps what you think is a positive reinforcer really isn't one for this individual and you need to try something else. The most important question any teacher can answer before asking a learner to do something is, "Why should he?" In other words, effective teaching is not the result of rank or entitlement ("Because I said so!"). These sources of power too often result in forcing birds with towels or leather gloves. The power to teach effectively comes from controlling the antecedents and consequences, not the bird.

Here is one example of using ABA strategies to teach an intractable bird to willingly exit her cage with positive reinforcement. Skyler is Deb Olson-Hill's young Amazon parrot who refused to come out of her cage for months after having been scared by a high-energy dog. After attempts to force her to come out taught her to become more aggressive, Deb learned some basic positive reinforcement training skills. Recalling that her play gym was one of Skyler's favorite play spots before this incident, Deb set to the task of teaching Skyler that coming out of the cage was more reinforcing than staying in it. This was just the first step in her training program.

Setting Events: Deb placed the play gym in front of Skyler's cage and opened the door.

A: Deb put some favorite treats in the play gym dish.

B: Skyler climbed out of her cage onto the play gym.

C: Access to favorite treats was provided.

Prediction: Skyler will continue to come out of cage more to get treats.

By providing Skyler with many opportunities to *choose* to come out to the play gym for treats that were not otherwise available, Skyler quickly learned that the consequence for coming out of her cage was reinforcing. With each repetition, her confidence to leave the cage grew. Soon, Deb began raising the criterion for reinforcement by moving the play gym incrementally further from the cage, allowing Skyler to master each step along the way. Eventually, the play gym was far enough away from the cage that she needed Deb's hand to get to it and to return to her cage after play. Now Deb's offered hand had value as a reinforcer for stepping up.

Soon they began walking around the house generalizing Skyler's behavior to other locations and people for treats, praise, and head scratches. At all times, Skyler was empowered to choose and positive reinforcement was delivered for the right choice. Now, after several months of empowering Skyler in this way, Deb recently reported, "My 'angry,' 'psycho-Amazon' will now go anywhere with anyone. On her first real trip to the vet, she remained very calm. Her eyes weren't even pinning when the Dremel tool came out to file her nails!" Deb and her family did more than teach their parrot to step up. By giving Skyler the power to control environmental events and delivering positive reinforcement they taught her to be confident, bold and resilient.

Yeah But...and Other Distractions

I am reminded of a cartoon that depicts a shattered fish bowl on the floor and the mother goldfish is saying to her baby, "There are no limits, honey – you can be anything you wish to be." Of course there are always limits of acceptable behavior both in the wild and in our homes. Parrots should not be empowered to bite, decimate the furniture or scream for hours. If the house catches on fire, you will of course get your birds to safety in whatever way you can. The issue under debate is not *what* behavior parrots should do – it's *how* we teach them to do it. With a sound knowledge of the tools of applied behavior analysis it is a reasonable goal to facilitate, rather than force, all behavior.

Another common distraction is the claim that positive reinforcers are nothing more than bribes. If that is the case, nature herself stands at the front of the line of offenders as consequences shape the behavior of *all* animals. Learning is defined as behavior change due to experience. The experience that changes behavior is interaction with the environment. In the case of captive parrots, it is simply a fact that we control most of the antecedents and consequences and should therefore do so in ways that positively reinforce the behaviors we want to see more. Not to mention that bribes are typically intended to induce corrupt or nefarious behavior. Stepping on and off hands, remaining on play gyms, chewing approved items and communicating in pleasant tones hardly fit that description.

Conclusion

There is a Turkish proverb that says, “No matter how far you have gone on the wrong road, turn back.” There is an alternate road before us that leads to a validated teaching technology based on empowerment through choice and positive reinforcement. There are currently several popular belief-systems regarding how to best manage parrot behavior. When opinions differ, and emotions are strong, and the stakes are high, science should hold a higher value than conventional wisdom. Science demonstrates that there is a reliable correlation between behavioral health and environmental control. In fact, control is what makes behavior effective. Further, it is quite possible that by empowering parrots throughout their lives we actually immunize them against depression and other behavioral pathologies associated with captivity.

When we understand how behavior works we don't need to choose between empowered birds and birdy bedlam. We *can* never make a parrot do something it doesn't want to do and still have parrots who exhibit reasonable companion bird behaviors. People should view forceful and coercive training methods as stealing behavior that can be given to us instead by skillful use of positive reinforcement and facilitative antecedents. Keeping parrots offers us this opportunity and this responsibility to educate ourselves about teaching and learning. It's fortunate for parrots and people that we are empowered to choose a more humane and effective road.

References

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Resources for Toys and Toy Parts

The following lists resources where you can find some of the toy parts and toys referenced in this book.

- www.avianbasics.com/Toys.html
 - SS Bucket of Fun by Platinum Toy Works, pg. 45
- www.beakapoo.com
 - Small Flutter Bug, pg. 70
- www.birdsjustwannahavefun.com
 - Paulie rope, pg. 53
- www.birdsnest-toys.com
 - Parrot Curlers, pg. 56
- www.birdsafestore.com
 - Cholla Perch, pg. 39 Stainless Steel Toy Pail, pg. 45
- www.estarbird.com
 - Get a Grip, pg. 11 Brainiac block, pg. 39
 - A Lovely Bunch of Coconuts, pg. 69
- www.greyfeathertoys.com
 - SS Treasure Chest Pail, pg. 45 Treat Maze, pg. 45
 - Yellas, pg. 47 Paulie rope, pg. 53
 - Sunburst Wheels, pg. 55 & 65 Birdy Bella, pg. 64
- www.joann.com
 - Wacky Whirly Tool, pg. 43
- www.nalanitoys.com
 - Plastic Lattice Links, pg. 42 Plastic Spin Wheels, pg. 53 & 54
 - Paulie rope, pg. 53
- www.naturechest.com
 - SS Bucket of Fun by Platinum Toy Works, pg. 45
- www.parrotdiserperch.com
 - Cholla perch, pg. 39
- www.parrotislandinc.com
 - Squid Bungee Toy, pg. 53 Treasure Chest, pg. 46
- www.perchfactory.com
 - Leather & Sisal Perch Swing, pg. 51

- www.rosespet.com
 - Loofa Stuffer, pg. 58
 - TUTT Toy, pg. 68
- www.rothbys.com
 - Plastic Lattice Links, pg. 42
 - Plastic Gears (also called Sunburst Wheels), pg. 55 & 65
- www.smartbirdtoys.com
 - Barrel of Fun Puzzle, pg. 31
 - Rubber squiggly toy base, pg. 57
- www.squawkstore.com/store
 - Jungle Talk Hide-A-Treat, pg. 34 (They call it “Old School Treat Cup”)
 - Carousel Treat Holder, pg. 55
- www.thecraftshoponline.com
 - Wacky whirly straw kit, pg. 43
- www.theperchstore.net
 - Barrel of Fun Puzzle, pg. 31
- www.windycityparrot.com
 - Jungle Talk Hide-A-Treat pg. 34
 - JW Pet Insight Activity Treat Holder, pg. 44