Just Listen

Giving Animals a Voice to Improve Their Quality of Life

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The Tao of Pooh

"Lots of people talk to animals...Not very many listen though...that's the problem."

Benjamin Hoff

Outline

- People are a critical part of the lives of animals in human care

- Let the animals 'tell' us how to improve their care

- Importance of the caregiver/animal relationship

- Strategies for working with nervous or skittish animals

- Techniques for problem solving

- Back to where we began

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My Evolution of Thought

- Began in animal training, which influenced my thinking ever since (focus on trust/respect, building a positive relationship)

- *Q^2 – Our Quality of Care is Their Quality of Life* presentation at Twycross Zoo in 2013

- Keepers/trainers are an critical part of the animals' lives, therefore we <u>must</u> be a positive force

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My Evolution of Thought

- Animals first – always

- They are there all day, every day

- Ask yourself – what are the animals doing now? Did I give them behavioral opportunities to keep them stimulated? (animals do not go to sleep as soon as you leave!)

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My Evolution of Thought

- **We have a *moral obligation* to offer the animals in our care the absolute best lives we can provide**

Human-Animal Relationship

- Hemsworth, P.H. Human–animal interactions in livestock production. Applied Animal Behaviour Science, Volume 81, Issue 3, 2 May 2003, Pages 185–198

- Hemsworth, P.H. , et al. Relationships between human-animal interactions and productivity of commercial dairy cows. *J ANIM SCI 2000, 78:2821-2831.*

- Waiblinger, Susanne, et al. "Assessing the human–animal relationship in farmed species: A critical review." *Applied Animal Behaviour Science* 101.3 (2006): 185-242.

- Boissy A, et al. 2007. Assessment of Positive Emotions in Animals to Improve their Welfare. Physiology & Behavior 92: 375-397

- Seabrook, Martin F. "The psychological relationship between dairy cows and dairy cowmen and its implications for animal welfare." *International journal for the study of animal problems* 1 (1980).

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Human-Animal Relationship

- **Carlstead K. 2009 A Comparative Approach to the Study of Keeper-Animal Relationships in the Zoo. Zoo Biology 28: 589-608**

- **Meehan CL, Mench JA. 2007. The Challenge of Challenge: Can Problem Solving Opportunities Enhance Animal Welfare? Applied Animal Behavior Science 102: 246-261**

- **Hui E, Feldman M. 2013. From Fear to Friend: Building Trust Between Keeper and Animal Through Training. ABMA Wellspring Vol 13 Issue 1: 2-6.**

- **Claxton A. The Potential of the Human–Animal Relationship as an Environmental Enrichment for the Welfare of Zoo-Housed Animals. Applied Animal Behaviour Science 133 (2011) 1– 10**

- **Hosey G., Melfi V. Human–Animal Bonds Between Zoo Professionals and the Animals in Their Care. Zoo Biology Vol 31, issue 1 (2012) p13-26**

Where to Begin?

- Build a Positive Relationship

  - <u>Trust</u> - Before trying to train an animal, build a positive relationship with them so that the animal is comfortable with and trusts you

  - <u>Motivation</u> – Change the animal's motivation from "oh no, here they come" to "oh boy, here they come!" Martin)

  - <u>Patience</u> – Do not impose yourself on an animal before you've earned that trust

Where to Begin?

- Find out what the animal likes (and dislikes)

  - Food preference tests

  - Likes/dislikes sheet

  - This can also help with effective enrichment and training

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Food Preference

- Finding out the favorite foods of the animals in your care helps you find the most effective reinforcers

- Separate the items in the animal's diet, and watch what items the animals choose to eat first. Do this for several feedings in case preferences change

- Once you find the animals' preferred food items, take these out of the free-fed diet and use them for relationship building, training, and enrichment

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Where to Begin?

- Build a Positive Relationship

  - 'Human Pez Dispenser' – Offer preferred items to the animals on a regular basis, so the animals associate *you* with favorite treats

  - Drop and Go – In the beginning just drop a favored food item in the enclosure and leave, don't impose your presence until the animal begins to associate you with something positive

  - Proximity – Wait to introduce yourself in closer proximity until the animal appears to positively anticipate your visit

  - Tamarin example

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Animal Sense

- "Listen" to the animals – vocalizations, body language, movement, etc.

- Let that behavior control your behavior
  - Habitat servicing
  - Move/freeze
  - Verbal warnings
  - GES, toucan, etc. examples

Working With High-Strung Animals

- Implementing exhibit changes and enrichment with nervous or skittish animals

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Have You Ever Said…

"*I can't add that new item or give them enrichment, they're nervous about everything!*"

Implementing Change

- The information presented next discusses how to do enrichment with nervous or skittish animals; but the techniques also work with new habitat features and management changes

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Enrichment

- Some animals are neophobic – nervous about new things

- People sometimes believe the best thing to do for these animals is to keep everything the same, so that they are not stressed or nervous

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Enrichment

- In reality, animals are much better off learning coping skills, the ability to deal with new things, since change is an inevitable part of life (giraffe example)

- In addition, once animals learn to accept new and different things, a whole new world of enrichment and activity can be used to make their life more interesting

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Enrichment

- Some people try the 'enrichment overload' approach, where they put enrichment everywhere

- Others try to get animals used to enrichment by putting it where they must go near it, such as by food bowls or in favorite areas of an enclosure

Enrichment

- These approaches may make animals nervous, and can sometimes make enrichment a negative thing

- So, here are some ideas on how to introduce enrichment with nervous or skittish animals

  – Habituation

  – Desensitization

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Habituation

- The lessening or disappearance of a response with repeated presentations of the stimulus

- The process of gradually getting an animal used to a situation that it normally reacts to, (i.e. avoids or reacts adversely to) by prolonged or repeated exposure to that situation

- The key to habituation is that it is a PASSIVE process, where the animal is exposed to new things and acclimates to them on its own

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Desensitization

- The act of pairing a negative, or aversive event, with positive reinforcement until the event loses its aversive quality

- Unlike habituation, desensitization is an ACTIVE process where positive reinforcement is paired with the item to build a more positive association

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Desensitization

Two main methods

- Keeper encourages the animal to the item and reinforces the animal

- Favored food item can be placed near/on item and let the animal approach on its own

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Double-Wattled Cassowary

- Keepers did not utilize enrichment because the animals appeared nervous about new things

- Enrichment study done by a research intern, so began habituating and desensitizing cassowaries to enrichment

- The first item took over a week for them to approach, but after the first few items, they began investigating new things within a very short time

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Double-Wattled Cassowary
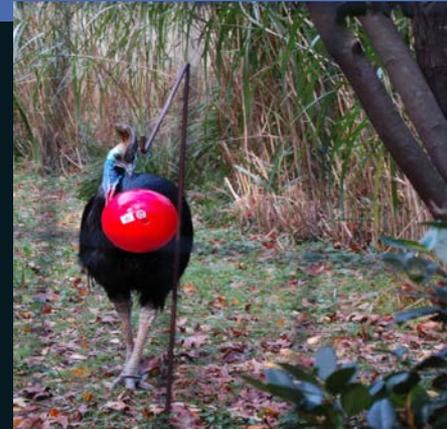
Listen to the Animal!

- Whichever method you use, remember two main things:

  – Start where the animal is relaxed and comfortable

 – Let the animal's behavior set the pace

Listen to the Animal!

- If the animal is apprehensive about approaching the object closely, start far enough away so that the animal is not nervous

- Don't place objects where an animal can't easily avoid them, for example, don't put them in/next to the food bowl or in the shifting pathway of the animal

- Animals will generally respond more positively to enrichment if they are given the chance to make the choice whether or not to approach it at their own pace

- Once the animal comes to a certain distance without hesitation or nervousness, then gradually move the object closer

It's Worth the Effort

- Once animals start becoming comfortable with new things, progress moves at a faster pace

- It may take them days or weeks to use a new exhibit feature or interact with their first enrichment item, but then each one after that will generally proceed more and more quickly

- Spend the time helping the animals learn to accept change, and you will open up a whole new world for them – it's worth the time, it's worth the effort!

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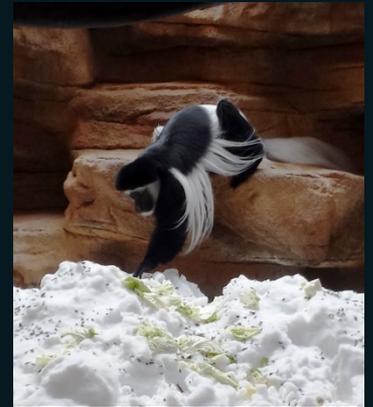
Problem Solving

- There are lots of tools available, here are some options that might be useful as part of your animal care 'toolbox'

'Clipboard' Approach – Simple and Effective

Patterns and contexts

- Many problem behaviors occur in specific situations, even though the patterns may not be obvious

- Using a simple data collection sheet, you can more easily determine whether the behavior is occurring at specific times or in specific contexts

- If patterns are found, this is a valuable tool towards finding ways to solve the problem

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'Clipboard' Approach

- This is an example of a form used for a macaque

Date	Time	Initials	Location	Situation/Comments

Patterns of Behavior

- Look at the information to see if there is a pattern to the behavior. Does it occur:

  – at certain times of day?

  – before/after feedings?

  – when there are a lot of visitors?

  – when the animal is alone, or with specific other animals?

  – when certain keepers are present?

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Patterns of Behavior

If a pattern is found, this gives you a tool in trying to reduce or eliminate the problem. For example:

- Bird overpreens feathers when lots of visitors are present
  - Offer more hiding areas and perching options farther from the public

- Monkey displays when a certain keeper is present
  - That keeper works to build a more positive relationship with the animal, and to make sure to not react when the unwanted behavior occurs

- Otter does a repetitive pattern swim at a similar time each day
  - Offer enrichment activities <u>before</u> this behavior normally occurs to give the animal another behavioral option

- Gorilla engages in R&R after feedings
  - Modifying types, proportions, and amounts of foods (i.e. fruit, biscuit) in each feeding may reduce this behavior

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Accidental Reinforcement

- Many unwanted behaviors occur because they have been reinforced – by keepers, volunteers, visitors, or other animals

- It's critical that staff and volunteers are all taught to ignore unwanted behaviors and to not bring attention to them (as long as it is safe to do this)

- Attention will often make an animal stop doing an unwanted behavior _at that time_, but this is also likely to reinforce the behavior and cause it to occur again in the future

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Problem Solving Model

- From Ken Ramirez's book *Animal Training – Successful Animal Management Through Positive Reinforcement*

- More detailed and time-consuming process, but very useful for working through long-standing or serious behavioral problems

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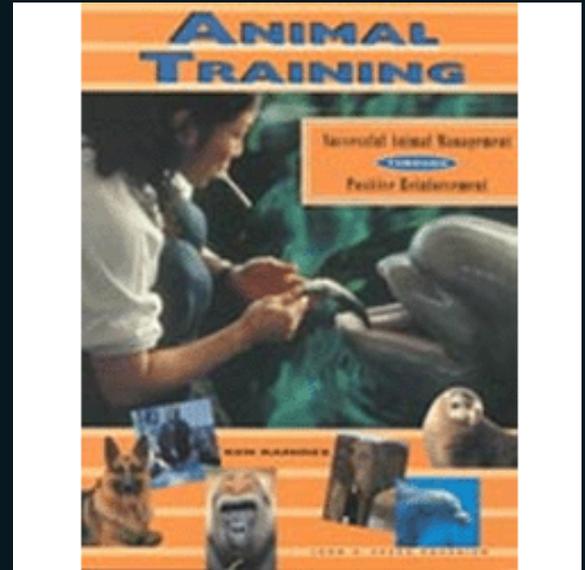
Problem Solving Model

Identify the problem

- Break behavior into parts (behavior is complex)
- Usually only certain parts need fixing
- Document the first occurrence
- Look for patterns
- Meet to discuss as soon as possible
- Outline the symptoms
- Examine the records
- Review "causes" checklist
- Evaluate the motivation
- Accept responsibility

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Problem Solving Model

Determine the cause

1. Environment
   - Weather
   - Facility changes (construction, landscaping, painting, etc.)
   - Prop changes (different uniforms, training pouches, equipment, etc.)
   - Public activity
2. Social
   - Dominance/submissiveness
   - Aggression
   - Competition
   - Sexual activity

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Problem Solving Model

Determine the cause

3. Psychological
   - Boredom
   - Neurotic or aberrant behavior (often become self-reinforcing/classically conditioned)
   - Superstitious behavior
4. Physical
   - Always check for health or medical concerns
   - Biggest health problems may not be easily observable (arthritis, vision or hearing problems, etc.)
   - Physical capabilities

Problem Solving Model

Determine the cause

5. Keeper/Trainer
   – Skill level
   – Basics (cues, bridging, reinforcers, consistency)
   – Emotion/mood
6. Training Sessions
   – Planning (session goals/plans are critical)
   – Number of sessions
   – Frequency of sessions
   – Pacing of sessions

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Problem Solving Model

Determine the cause

7. Regression
    – Regression is a normal part of learning

8. Desensitization (animals becoming comfortable with items or changes in the environment)
    – Remember this is an ongoing process
    – Desensitize animals well, so that when unexpected changes occur animals can more easily accept/handle them

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Problem Solving Model

Balance of motivators

- Try to determine the balance of reinforcement

- For increased behavior – what is reinforcing it?

- For decreased behavior – what is reducing it?

- Be aware our perceptions may be different from the animals

- Realize that we may not have identified all possible motivators

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Problem Solving Model

Factors that MAY decrease the desired behavior	Factors that MAY increase the undesired behavior

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Problem Solving Model

Understanding motivation

- Animals seek to control their environment

- Selfishness "what's in it for me?"

- Consequences are rarely neutral

- Past consequences create motivation for behavior

- Motivators (positive and negative) are always present in the environment (not always from us)

- Animals will select stimuli that are important to them, not the trainer

- An animals' ability to control the balance of reinforcers impacts whether or not an animal learns

- Dependent upon the animal's internal state

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Problem Solving Model

Implement a plan

- Determining the cause is not always possible
- Knowing the cause may not present an immediate solution
- Use of behavior analysis
- Consistency with all keepers/trainers is critical

Monitor and readjust

- Once a plan is implemented, closely monitor the animal's behavior and progress
- If the problem does not improve, review the problem-solving model, and readjust the plan as needed

Example – Gorilla Shifting

Identify the problem (be specific)

- During shifting attempts, some of the gorillas regularly run back and forth through, and/or block shift doors

- K2 and K3 are more likely to play, running doors, etc. during attempts

- H1 will sometimes sit at and/or block the door

- Shifting behavior is possibly better when fewer people are present

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Example – Gorilla Shifting

Determine the possible causes

Environment

- Roof project occurring over the past few months

- Researcher has begun working with the gorillas over the past couple of months

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Example – Gorilla Shifting

Social

- H1 used to be submissive to K1 in the past but now acts more dominant since reintroduction

- K1 now appears to be low ranking within the group, in the past has been one of the dominant members, possibly causing frustration, lack of control?

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Example – Gorilla Shifting

Psychological

- Holding 3 is a knockdown area, may have a negative association

- Holding 3 is the only one not on view to the public

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Example – Gorilla Shifting

Physical

- K1 has arthritis

Trainer

- Lots of keepers work gorillas, consistency could be an issue

- There is no specific training/shifting plan developed for this behavior

- Keepers have varying levels of experience with animals and/or training

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Example – Gorilla Shifting

Session Use
- Behavior only worked once a day for p.m. feeding

Regression
- Remember this is a normal part of the training process and occurs regularly

Desensitization
- Goal is to desensitize animals thoroughly that they easily handle unexpected changes

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Example – Gorilla Shifting

Consider the balance of motivators

Factors that may reinforce/increase playing with doors

- Door cannot close, stops separation

- May get more attention due to longer sessions

- May spur play sessions with the young male gorillas, so may have a positive association

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Example – Gorilla Shifting

Consider the balance of motivators

Factors that may reduce/decrease stationing for separations

- Being separated from other gorillas

- Going to a less favored enclosure

- May get less attention from keepers overall if shift more quickly

- No tiered reinforcement for shifting quickly vs. slowly

- If the young males don't separate, keepers wait them out, sometimes resulting in a long playtime

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Example – Gorilla Shifting

Implement a plan

- Use station markers to clearly let the animals know where to go

- Implement a tiered reinforcement system with higher value/amount of reward for quicker shifting

- Reduce number of people in the environment during shifting attempts

- Ignore undesired behavior, take a break if animals don't shift within a specified amount of time

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Example – Gorilla Shifting

Constant monitoring

- Shifting records show K1 successfully shifted over 80% of the time

- Keepers focused on not bringing attention to incorrect behavior, especially the behavior, and have seen improvement in overall shifting success, and a reduction in 'door games'

- Have reduced volunteers coming back during shifting attempts, to better control the environment and potential attention-related reinforcement

- The roof work project and related disruptions are done

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Main Messages

- **Listen to the animals! Let their behavior be your guide**

- **Techniques like habituation and desensitization can help get animals accustomed to change and open up a world of new experiences**

- **There are many problem-solving tools available to help work through challenges**

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Final Thoughts

- **Back where we began…**

We have a moral obligation to offer the animals in our care the absolute best lives we can provide

Animals first – always

Thanks!

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