

EMOTIONAL ENRICHMENT: An evolutionary approach to benefiting wild animals' quality of life in captivity

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Abstract:

Emotional Enrichment is an evolutionary method of enrichment dealing with the stress level of the animal, its attitude towards its human caretakers, and its comfort with its captive environment. The concept takes into account the fact that each animal is an individual with personality characteristics specific to that one individual rather than to the species as a whole. Therefore, we must treat each animal according to its needs, rather than utilizing a species-specific formula.

Definition:

At the International Exotic Animal Sanctuary, we have been practicing various methods of enriching the lives of our resident felines for a number of years. Some of the methods we utilize are conventional and are used more and more by responsible and progressive institutions in the animal care field. Others are rather unique to our facility. We have been searching for a manner of distinguishing these various techniques. We have determined that the methods should be classed under two distinct categories.

The most common enrichment category currently utilized is Behavioral Enrichment. This method of enrichment is defined by the AZA Behavioral Advisory Group as:

“Environmental enrichment is a process for improving or enhancing zoo animal environments and care within the context of their inhabitant’s behavioral biology and natural history. It is a dynamic process in which changes to structures and husbandry practices are made with the goal of increasing the behavioral choice available to animals and drawing out their species-appropriate behaviors and abilities, thus enhancing their welfare. As the term implies, enrichment typically involves the identification and subsequent addition to the zoo environment of a specific stimulus or characteristic that the occupant(s) needs but which was not previously present.”

In other words, behavioral enrichment primarily is concerned with physical objects and structures that seem to make life a bit more interesting for the species. We practice this method in many ways. We build very large habitats with shade and terrain changes. We build ramps and high perches for the climbing cats such as cougars, leopards, bobcats, lynx, and jaguars. We build perches for the lions. We build perches and pools with running water for the tigers and jaguars, as well as other cats. We give large and small balls to the cats. We give boat buoys and large plastic “pickles” to the larger cats. We give the cats pumpkins to play with in the fall. We give cats ice blocks embedded with food objects to play with in the summer.

However, we also feel that exotic felines, as well as other wild animals, benefit substantially from having an emotional state of well-being and confidence in their surroundings and their human caregivers. We give a great deal of attention to this subject. We call it Emotional Enrichment. There is evidence that the attitude presented by human keepers and the way they present the animals to the public impacts the interchange between both entities. How we humans sense and feel the presence of individual animals directly influences how we interact with them (Abram 1996; Sewall 1999).

Application:

Emotional enrichment is practiced in a variety of ways. One of the frequent mistakes that is made is to categorize a species in general terms vis-à-vis its personality and emotional characteristics. Animals are as individual as humans. Sure, there are some generalizations that can be made about a specific species, but there are many more distinctions from one individual to another within that species. So, we work with each individual according to its personality and emotional needs. In general, we have our staff and volunteers treat each cat with the respect and dignity that would be accorded another human. Care is taken not to agitate, irritate, or unduly excite any cat. No demands are placed upon it, other than the necessary movement into and out of its separated area to be locked down for feeding and cleaning of the habitat. Volunteers and staff sit outside the habitats of various cats and give them companionship and company. When the keepers are working in the cat's area, they take the time to softly talk to the cat and reassure the cat before moving on, thereby having protected interaction that is beneficial to the cat without risk to the keeper. Keepers also take the time to relax the animal and make it comfortable with the keeper's presence before operating gates, feeding, moving the animal, etc. Tours are conducted in such a manner that they do not excite or upset the routine of the cats. Cats are never required or asked to approach or change their position for the benefit of a tour or individual. Respect is the guideword, and all cats are to be treated with respect at all times.

We never use words such as "order" or "command." We choose words such as "condition" and "positive reinforcement." In other words, in every way possible we try to make the cats' experience with humans one of security, comfort, and support, giving them the understanding that their feelings are being considered in all activities. Our experience is that the cats respond very positively to this conditioning. While many people would call this attitude anthropomorphic, it is indeed contradictory to designate relating to wild animals much as one would another human anthropomorphic, but then to utilize behavioral enrichment items in a manner that would be considered pleasing to humans but not necessarily to the individual or species meant to be enriched. I would suggest that the reverse might be more appropriate: to consider behavioral enrichment programs based upon the animal's instinctual and emotional desires rather than what a human would consider enriching, and to recognize the possibility that the animal's emotional ranges are more consistent with ours than we choose to recognize. For instance, frequently facilities give exotic cats items filled with food that the cats have to dig out or hang something just out of reach for the cat to jump at. In truth, exotic cats, when not needing to obtain food for existence, want nothing as much as to be relaxed and free of stress. The enjoyment of

seeing a cat working at a frustrating item is perhaps pleasurable to the human, but not the cat. They enjoy relaxing or sleeping without any stress more than most anything. In addition, human influences, also called anthropogenic effects, are rampant in nature and in the captive animal world. We humans intrude on every aspect of this world's activities. Our just being out in nature, not even handling animals, can influence their behavior. (Bekoff and Jamieson 1996; Bekoff 2001; 2002; Goodall and Bekoff 2002)

Even years ago, Darwin stated, "Nevertheless, the difference in mind between man and the higher animals, great as it is, certainly is one of degree and not of kind." (Darwin [1871] 1936, 494)

Our anthropocentric view of other animals, in which humans are so taken with themselves, is far too narrow. The worlds and lives of other animals are not identical to those of humans and may vary from species-to-species and even within species, but this is also the case with different human groups. The same problems arise in the study of emotions with different animals as with different humans. (Bekoff 2000a, 2002a, 2004)

Also, Burghardt (1997) suggested adding an area called private experience. He (p. 276) noted that "The aim is nothing less than a deliberate attempt to understand the private experience, including the perceptual world and mental states, of other organisms. The term private experience is advanced as a preferred label that is most inclusive of the full range of phenomena that have been identified without prejudging any particular theoretical or methodological approach." Burghardt's suggestion invites what he calls 'critical anthropomorphism,' carefully used anthropomorphism, an approach with which many agree. It has been suggested that we be 'biocentrically anthropomorphic' and that by doing so we do not necessarily lose the animal's point of view. We are humans and we have by necessity a human view of the world. (Bekoff 2000b)

Indeed, Darwin (1859, 1872/1998) emphasized that there is evolutionary continuity among different species. His ideas about evolutionary continuity, that behavioral, cognitive, emotional, and moral variations among different species are differences in degree rather than differences in kind, are often invoked in trying to answer questions about the evolution of various behavioral phenotypes. On this view there are shades of gray among different animals and between nonhumans and humans, indeed the differences are not black and white with no transitional stages or inexplicable jumps. (Gruen 2002; Guzeldere and Nahmias 2002)

Most of the cats in our facility were either intentionally or unintentionally mistreated or abused. They come to us with an antagonistic attitude towards humans. We have found that the great majority of them have changed that attitude as they have come to appreciate our feelings and conduct towards them. Their lives have definitely been improved in obvious behavioral changes that have taken place. Their stress level is minimized. You will rarely, if ever, see a cat at our facility pace, bare its fangs, or charge the fence towards any human. Pacing is very minimal and is generally associated with specific causal

stimuli such as a new piece of machinery, unusual group of people, etc. You will almost never see any defensive/aggressive actions towards humans.

I physically interact with a large number of our large cats. Some of them have never before had direct contact with a human. Most of the cats that have had direct contact previously considered it adversarial, as training methods of domination/ control were apparently utilized. I find that most of our cats respond surprisingly well to my method of utilizing only affection, trust, and respect in direct interaction. I simply sit and become a companion to many of the larger cats, and they often fall asleep with me standing next to them softly talking to them and giving them reassurance and security. They obviously enjoy and want positive emotional interaction. Even the most solitary of cats in nature, such as leopards, cougars, and tigers are among the most affectionate of our cats with me. This again varies from individual to individual. Some simply want me to stand and talk to them. Others want me to sit beside them or in close proximity. In some cases, an individual cat would rather I play with it utilizing some of their objects such as rolling a ball back and forth, holding one of their enrichment items or tossing it for them, or simply holding a dry twig for it to take in its mouth and break pieces off bit by bit (this is a favorite game for most of the cats, actually). Some also enjoy being rubbed or scratched or simply sleeping with a paw placed in my hand or on my arm.

The point is that we find that emotional enrichment not only heightens the behavioral enrichment and acts as an important adjunct to it, but the two activities in concert substantially improve the emotional and physical lives of the individuals involved. Enrichment items that would otherwise not be given much attention are used much more when they are a source of play and interaction with a human, and the cats seem to derive much more pleasure from the activity. Also, our experience is that the whole attitude of our cats is much more positive and peaceful as a result of our emotional enrichment program.

In *Species of Mind*, Allen and Bekoff (1997) argued that there are a number of reasons that cognitive explanations that entail beliefs, desires, or intentions may be the best explanations to which to appeal because they help us come to terms with questions centering on the comparative and evolutionary study of animal minds.

It has also been concluded that not only are some animals aware of themselves but that such self-awareness enables these animals to infer the mental states of others. In other words, species that pass the mirror test are also able to sympathize, empathize and attribute intent and emotions in others—abilities that some might consider the exclusive domain of humans. (Gallup 1998, 66) I have good reason to consider that many wild animals can sense the motivation of humans. This would explain why some wild animals readily accept one human while immediately rejecting another.

I can carry out a number of medical procedures without the need for sedation or stress. I have removed bones from lions' mouths, removed a tire from around a lion, taken urine

samples, checked paws and legs for injuries, given shots, and done a number of other physical checks.

I would also point out that our experience is that most human individuals, no matter how sincerely motivated, are not candidates for unprotected contact with a wild animal. It does take a certain personality type coupled with the appropriate degree of self-confidence and ability to reassure and make the wild animal comfortable. Also, perhaps the proper motivation. Unless staff is available with the proper knowledge and capabilities, it would be better to confine contact to protected interaction.

This program does not necessitate actual contact interaction to be a successful program. Many of the elements of our program could be utilized and improve an animal's life without the need for direct human contact. Indeed, we have several cats that derive a great deal of benefit from our program without having any direct interaction. Again, it is all an individual determination on our part. I would again emphasize that, unless unprotected contact can be safely utilized without any adversarial consequences, it would be better to confine the technique to protected contact. I don't interact in an unprotected environment with an individual animal unless I feel it would substantially benefit that individual animal's quality of life, and that I can safely interact without danger to the animal or myself. We feel that emotional enrichment would be a vital and helpful addition to any behavioral enrichment program and would substantially benefit the lives of the affected animals.

Of course, these findings and opinions lead to troubling questions that must be addressed. If animals, including those who are routinely used for research, education, amusement, food, and clothing, are aware of not only their own but also the emotional states of others (as suggested by Preston and de Waal 2002 and others; see Bekoff 2002b), there are serious implications for considerations of their well-being. An additional dimension of awareness must be taken into account, because individuals enjoy and suffer not only their own but also others' feelings. (Bekoff 2002b)

References:

Allen C. and Bekoff M. 1997. *Species of Mind: The Philosophy and Biology of Cognitive Ethology*. MIT Press, Cambridge, Massachusetts.

Abram, D. 1996. *The Spell of the Sensuous: Perception and Language in a More-Than Human World*. Pantheon Press, New York.

Bekoff, Marc 2001. "Human-Carnivore Interactions: Adopting Proactive Strategies for Complex Problems." In *Carnivore Conservation*, ed. J. L. Gittleman, S. M. Funk, D. W. Macdonald, and R. K. Wayne, 179–95. New York: Cambridge Univ. Press.

Bekoff, Marc 2002a. "Animal Reflections." *Nature* 419:255.

Bekoff, Marc. 2000a. "Redecorating Nature: Reflections on Science, Holism, Humility, Community, Reconciliation, Spirit, Compassion, and Love." *Human Ecology Review* 7:59–67.

Bekoff, Marc 2000b. *Strolling with Our Kin: Speaking for and Respecting Voiceless Animals*. New York: Lantern.

Bekoff, Marc, and Dale Jamieson. 1996. "Ethics and the Study of Carnivores: Doing Science while Respecting Animals." In *Carnivore Behavior, Ecology, and Evolution*, vol. 2, ed. J. L. Gittleman, 15–45. Ithaca, N.Y.: Cornell Univ. Press

Bekoff, Marc and Jan Nystrom 2004, "The Other Side of Silence: Rachel Carson's Views of Animals." *Human Ecology Review*.

Burghardt G.M. 1997. Amending Tinbergen: A fifth aim for ethology. In: Thomson Mitchell R.W.N. and Miles L. (eds), *Anthropomorphism, Anecdote, and Animals: The Emperor's New clothes?* SUNY Press, Albany (NY), pp. 254–276.

Darwin, Charles. [1871] 1936. *The Descent of Man and Selection in Relation to Sex*. New York: Random House

Gallup, Gordon G. Jr. 1998. "Can Animals Empathize? Yes." *Scientific American* 9 (4): 66–71.

Goodall, Jane, and Marc Bekoff. 2002. *The Ten Trusts: What We Must Do to Care for the Animals We Love*. San Francisco: HarperCollins.

Preston, Stephanie D., and Frans B. M. de Waal. 2002. "Empathy: Its Ultimate and Proximate Bases." *Behavioral and Brain Sciences* 25:1–74.

Sewall, L. 1999. *Sight and Sensibility: The Ecopsychology of Perception*. Jeremy P. Tarcher/Putnan, New York.