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Best Practices for Building Empathy Through Live Animal Encounters

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ABSTRACT

As the role of zoos shifts from entertainment to environmental stewardship, many facilities are embracing new methods of achieving their goals. Recent studies indicate that people who feel empathy toward animals are more likely to engage in conservation actions, leading some zoos, aquariums, and nature centers to incorporate empathy-building messaging into their programming. This discussion provides an overview and examples of some of the best practices for integrating empathy messaging into live animal encounters including: individualization, perspective-taking, modeling, anthropomorphism, and transparency of intent.

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Why build visitors' empathy for animals?

Techniques for fostering empathy have been implemented as an effective tool for connecting museum visitors with history¹ and can be expanded for use in other venues as well. The mission of the modern zoo has shifted from entertainment to conservation and currently reflects progress toward inspiring eco-conscious attitudes and behaviors.² As zoos, aquariums, and nature centers explore methods of instilling conservation values, some are turning toward the concept of empathy as an avenue for educating visitors and connecting them with the natural world. Current research indicates that there are educational advantages to evoking emotional responses toward animals as a method of accomplishing zoos' missions to connect audiences with wildlife.

Numerous studies have corroborated the conclusion that “doom and gloom” messaging focused on impending extinction should be replaced with empathy messaging focused on building emotional connections with nature. David Sobel, an educator and proponent of place-based education, stresses that children inundated with harm-only messaging will suffer “ecophobia,” characterized by a fear of nature and feelings of helplessness or apathy regarding environmental problems. His suggestion for a “cure” is to foster empathy.³ Similarly, in his now iconic work, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*, environmental journalist Richard Louv discusses the critical need to cultivate children's empathy for nature. Louv asserts that without empathy for the environment, future generations will not feel compelled to save it.⁴

Research also indicates that empathy for the environment promotes conservation attitudes and actions. In a study measuring the correlation between empathy and environmental attitudes, a psychologist at the University of Madrid, Jaime Berenguer, found that participants who were asked to read a story about a vulture while considering the

bird's perspective were significantly more likely to make moral arguments for pro-environmental actions when presented with ecological dilemmas afterward.⁵ Furthermore, Esmeralda G. Urquiza-Haas and Kurt Kotrschal, behavioral biologists at the University of Vienna, argue that conservation behaviors are driven by ascribing a "state of mind" to animals or to the environment itself, which is one of the integral tenets of empathy teachings.⁶ These studies lay the groundwork for zoos and environmental education facilities to incorporate empathy-building messaging into their programs with confidence in its efficacy.

Keeper talks, exhibit interpretation and live animal presentations are common vehicles for delivering zoo's messaging, which places the responsibility for incorporating empathy on educators and program developers. To support these efforts, this discussion outlines strategies for generating empathy during live animal presentations.

Techniques

A variety of techniques are available to presenters and program developers attempting to use empathy to build visitors' connections to animals. This discussion groups some of the techniques into loose categories for the purpose of analysis and demonstration; however, the labels are fluid and the importance should be placed on effective integration of the methods, rather than precise definition of specific techniques.

Individualization

Individualization highlights an animal as an individual, rather than as a species. Social scientists Veronica Sevillano, Juan I. Aragones, and Wesley Schultz showed that creating empathy for a single animal can create empathy for the species by proxy. Visitors automatically perceive some types of animals as individuals more readily than others.⁷ For instance, visitors are not surprised to hear an elephant referred to as "she," but might be surprised to hear a presenter refer to a hissing cockroach as "she." Another simple way to individualize an animal is to refer to it by a given name. Visitors are not surprised that a polar bear has a name, but might raise an eyebrow if a presenter introduces a hornworm as "Marvin."

Presenters can further individualize an animal while disseminating information through storytelling. Though natural history is an important part of zoology facts such as an animal's weight or how many eggs it lays may not always be the most memorable and engaging information to impart to guests, particularly if the goal is to facilitate empathy. Instead, presenters can focus on the individual animal's personality or quirks, connecting these to species information when appropriate. A presenter could impart information about a tortoise's shell through an individual tortoise's story:

Jumbo Jet the radiated tortoise really loves to have his back scratched. He stands up tall and wiggles until you find just the right spot on his shell. He can feel my fingers scratching him, even through the shell, because it's part of his body.

Knowing the individual animal and practicing transitioning from a story to natural history information will improve a presenter's impact.

Perspective-taking

Perspective-taking, which is the technique of imagining circumstances from an animal's point of view, has been shown to increase empathy for humans and animals in a variety of studies.⁸ When asking questions to facilitate visitor engagement, presenters can choose questions that will encourage audiences to take an animal's point of view. Questions that require audiences to consider an animal's state-of-mind build empathy without putting pressure on visitors to provide a correct answer. Instead of asking, "How far do you think the owl can turn her head?" which could be answered incorrectly, a presenter could ask, "What do you think Pebbles is looking at?" The second question can elicit the same natural history information as the first if the presenter chooses to discuss head-turning, but the second question also invites the audience to take the owl's perspective.

Similarly, phrasing such as, "Ginger the millipede can hardly see. Can you imagine what it would be like to move around if YOU couldn't see?" encourages the audience to consider what the animal is experiencing. In the right setting, a presenter could ask children to try moving or acting like the animal ambassador to reinforce perspective-taking. The more audiences take the animal's perspective, the greater their empathy will become. This leads to greater support for conservation and willingness to act.⁹

Another way to draw attention to an animal's perspective is to discuss the animal's activity at the moment the visitors are encountering it. This is useful for maintaining an audience's interest, and for demonstrating an animal's agency. Interpreters who are talking to visitors while an animal digs, vocalizes, swims, climbs, or performs any number of natural behaviors can use the actions to point out an animal's agency with a comment such as, "Gonzo the anteater can choose to dig anywhere in the yard, but he must think that spot is the best one right now." This technique can be used even if an animal is simply walking: "When Opus the opossum comes out for playtime, he gets to decide what to do in the play yard. Right now he might smell something really interesting in that corner." Even a very small action such as the wiggling of a nose, the flicking of a tongue, or a seeming "non-action" like basking or napping are behaviors that can be interpreted effectively to bring attention to an animal ambassador's perspective.

Modeling caring

Another method of instilling empathy is for presenters to exemplify genuine empathy themselves. In a study of elementary school students, researchers in Germany and Slovakia Christoph Randler, Eberhard Hummel, and Pavol Prokop investigated children's attitudes toward three species that often elicit aversion: mice, snails, and woodlice. They found that after lessons on handling and caring for the animals, students reported significantly more positive attitudes toward all three animals.¹⁰ Demonstrating an animal's needs and modeling how to meet them can create a connection with an animal that might otherwise be perceived as frightening, dangerous, or dirty. Connecting visitors with traditionally uncharismatic species, like arthropods and amphibians, should be a driving force behind zoo messaging.

Highlighting how zoos meet animals' needs emphasizes the importance of zoos' role in conservation can be an effective method of modeling behavior.¹¹ During animal

presentations, interpreters can discuss how the zoo addresses an animal's particular needs. This can be done while still framing the presentation around the individual animal. For example, "Like all three-banded armadillos, Scooter likes sleeping in warm, dark places, so when he travels to a program like this, I bring a heating pad for his crate to make sure he feels comfortable." If a visitor asks what an animal eats, the response can emphasize caring: "Iguanas like Roxie would eat different types of plants in South America, so here at the zoo we worked with the veterinarians to come up with a special salad matching the nutrition she would get in the rainforest."

Anthropomorphism

A longstanding taboo against anthropomorphism, the technique of ascribing human characteristics to animals, has resulted in deep hesitation among zookeepers and interpreters to use this concept as an educational tool. Despite this opposition, anthropomorphism has been shown to effectively build connections between people and nature. In a study investigating the motivation behind conservation behavior, Researchers at the Hong Kong University of Science and Technology, Kim-Pong Tam, Sau-Lai Lee, and Melody Manchi Chao asked participants to draw the planet in danger. Participants who anthropomorphized nature or the earth on their posters when were significantly more likely to engage in conservation actions.¹² Similar studies found that participants felt more strongly connected with nature after reading anthropomorphized news articles about "Mr. Nature" than after reading objective articles.¹³ If zoos' missions include building connections between visitors and nature, anthropomorphism can be an effective strategy when used appropriately and intentionally.

Nuances in interpretation allow a presenter to give accurate and respectful information to audiences, even while comparing animals to humans. UCLA biologist Alvin A. Chan stresses that the purpose of anthropomorphism in environmental education is not to invent fictional animal characters with human qualities and the technique should still be grounded in scientific facts.¹⁴ Educational anthropomorphism allows for the use of less scientific terms such as "home" instead of "habitat," "eyes" instead of "photo-receptors," and might call a peacock's tail a "decoration to help him get a girlfriend." Examples like these are not untrue and they convey a sense of similarity between humans and animals without misleading or misinforming the public.

Taking anthropomorphism a step further can become uncomfortable for some presenters, but comparing humans to nonhuman animals facilitates understanding and builds connections. According to studies in which participants rate species as likeable, attractive or popular, people significantly prefer animals they perceive to be similar to themselves and have human-like characteristics.¹⁵ Examples of appropriate anthropomorphic elements might be: "This crate is like his car," "Vultures are janitors of their habitats," or "Sometimes Siesta the sloth has bed-head when she wakes up." Statements like these associate the animal with audiences' familiar experiences, making them more relatable and likeable.

Presenters who incorporate anthropomorphism should take care not to accidentally encourage misinterpretation of animals' behavior or demeanor. Visitors empathetically attempting to take an animal's perspective may inaccurately project feelings onto an animal based on their human experience. While viewing an animal resting on exhibit in

winter, zoo visitors might express concern that an animal is cold because a human would be cold. Presenters can correct misperceptions like these by recognizing visitors' tendency toward them and addressing them, even if visitors do not expressly state the concerns. Comparing and contrasting is an effective strategy: "Humans need friends and family around to be happy and healthy, but aardvarks like Tilli don't. She lives by herself here and that's how she would choose to live in the wild." Many interpreters naturally incorporate these strategies into presentations, but a conscious awareness of the tools and how to execute them will strengthen messaging.

Transparency of intent

For the purposes of this discussion, transparency of intent is the act of explaining learning objectives and intentions to the learner. In educational settings, transparency of goals can improve student achievement¹⁶ and raise students' awareness of how and what they learn.¹⁷ Zoos' mission statements and objectives are beginning to reflect the shift toward conservation.¹⁸ It is in the best interest of these institutions to publicize their role as conservation centers and their goals of building human–nature relationships to inspiring conservation actions.¹⁹ Additionally, explicitly stating goals clarifies the intent of live animal encounters.

Depending on whether the animal being presented is an iguana, a clouded leopard, or a tarantula, the intent of messaging may vary. A presenter could appropriately convey the intent of an encounter with a statement such as, "Most people have never had the chance to meet a clouded leopard and we want you to care about them as much as we do" or "Some people eat eggs every day, but have never met a chicken, so we like to introduce them to Bach the rooster."

Animals perceived to be unattractive may incite disgust or fear, which can be mitigated by honestly stating the intent of the encounter: "It's okay if spiders aren't your favorite animal. We want people to know how important they are and I think Rosie the tarantula is pretty amazing" or "One reason I love bringing Monty the python out to meet audiences is that sometimes people change their minds about snakes after they meet him."

If zoos hope to inspire conservation actions, zoo messaging must walk the line of convincing audiences that action is necessary, while not discouraging visitors to the point of disconnected ecophobia.²⁰ When discussing endangered species or the problems animals face in the wild, presenters can include expression of intent and empowerment in a statement such as, "We don't want to make people sad, but we do want to tell people about the ways they can help animals so they can go home and do it." Presenters can increase the success of their messaging by suggesting specific conservation behaviors in which the visitors could engage.

Empathy evaluation in the future

As with any informal educational setting, there is no single interpretive approach that will reach every visitor who comes through the gates of a zoo or aquarium. Empathy messaging is just one of many strategies a facility can employ to help achieve goals of increasing visitors' conservation actions. However, trends in research demonstrate that building connections to animals and the environment is likely to motivate changes in behavior. With this

in mind, environmental educators at any facility can hone their skills in delivering messages to intentionally incorporate productive elements of empathy into their programming. Further exploration of empathy as an educational tool in other types of static or living museums would benefit the current body of knowledge regarding this technique. Effective evaluation of empathy messaging in a zoo or animal presentation setting should be implemented, despite being a challenge for many facilities currently integrating this strategy. Measuring the impact of messaging aimed at motivating conservation behavior is a necessity and the zoological field would benefit from studies including longitudinal data regarding changes in conservation actions. Understanding the key elements of empathy and their use in a setting with a live animal can improve the quality of messaging, the engagement of the audience, and inspire greater conservation attitudes.

Notes

1. Savenije and Bruijn, *Historical Empathy in Museum*, 832–45; and Modlin et al., “Tour Guides as Creators of Empathy,” 3–19.
2. Rabb and Saunders, *The Future of Zoos*, 1–26.
3. Sobel, *Beyond Ecophobia*.
4. Louve, *Last Child in Woods*.
5. Berenguer, *Effect of Empathy Proenvironmental*, 269–83.
6. Urquiza-Haas and Kotrschal, *Mind Behind Anthropogenic Thinking*, 167–76.
7. Sevillano, Aragonés, and Schultz, *Perspective-taking and Environmental Concern*, 685–705.
8. Schultz, *New Environmental Theories*, 391–406; Sevillano, Aragonés, and Schultz, *Perspective-taking and Environmental Concern*, 685–705; and Urquiza-Haas and Kotrschal, *Mind Behind Anthropogenic Thinking*, 167–76.
9. Root-Bernstein, Root-Bernstein, and Root-Bernstein, *Framework for Environmental Education*, 584–92.
10. Randler, Hummel, and Prokop, *Practical Work Reduces Disgust*, 61–74.
11. Rabb and Saunders, *The Future of Zoos*, 1–26.
12. Tam, Lee, and Chao, *Saving Mr. Nature*, 514–21.
13. *Ibid.*
14. Chan, *Anthropomorphism as Conservation Tool*, 1889–92.
15. George et al., *Changes Attitudes Toward Animals*, 237–42 and Batt, *Human Attitudes Species Similarity*, 180–90.
16. Seidel, Rimmelé, and Prenzel, *Clarity of Lesson Goals*, 539–56.
17. Winkelmes, *Transparency in Teaching*.
18. Miller et al., *Evaluating Conservation Mission*, 86–93.
19. Rabb and Saunders, *The Future of Zoos*, 1–26.
20. Sobel, *Beyond Ecophobia*.

Disclosure statement

No potential conflict of interest was reported by the author.

About the author

Suzanne Akerman is a staff biologist at Point Defiance Zoo & Aquarium’s Wild Wonders Outdoor Theater in Tacoma, Washington. She has been sharing her passion for animals with audiences since 2002. In her spare time Suzanne is chair of a committee called Drinking for Conservation, which raises funds for endangered species through fun social events.

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