

## Passing the Torch

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I am honored to present the Key Note Address for this important and inspiring conference on animal care and management in zoological settings. I am sure the information we will hear in the next few days will inspire and empower us toward new levels in so many areas of animal keeping.

When I first started thinking about what to say at this presentation I was unsure of what you all might like to hear. I was equally unsure of what I was qualified to talk about. I finally decided that I should share with you what I know best; the most important lessons I have learned in the business of animal keeping, training, coaching and most of all building relationships with humans and other animals. Like a torch, these experiences and revelations have illuminated my 32-year journey in this most incredible field of work. Maybe passing them on to you will provide some useful insights that can prove helpful to you as well.

I started my career leading a new type of bird show at the San Diego Wild Animal Park. It was the first of its kind and proved to be hugely successful. I trained all the birds myself, and presented the show myself. I stood on the stage at the end of the show to take all the compliments from the audience as the rest of the trainers did all the work in the back. I was affected with what I later came to call the star syndrome. I thought I was more important than the other people on my team.

Then one day, one of my best trainers quit. In loud, rambling detail Chuck told me what a self-centered jerk I was, and how I never gave anyone credit or told them they were doing a good job. He told me I was a terrible leader. Then he left. I was hurt and confused. I thought I was being a good leader. I grew up thinking that leadership is about strength and the ability to make people comply with commands. I had no idea how to use praise or recognition with humans. But, I started to learn.

Even though I had used it with birds for most of my life, using positive reinforcement with humans didn't come easy to me. Like most kids, I grew up in a culture where negative reinforcement and punishment shaped my behavior. My parents, teachers, coaches, friends, just about everyone around me used punishment to influence my behavior. Being a good learner, I got pretty good at using punishment. But, over the years I have worked hard to resist my instinct to punish behavior and instead use positive experiences to build strong, lasting relationships with humans as well as animals. Several studies have shown the best reinforcer for humans is not more money, shorter workdays, longer vacations, etc. It is recognition. Something as simple as a "Good job" or "Thanks" can have the most dramatic influence on increasing behavior. However, positive reinforcement is difficult for many people to use because it does not come naturally. Consequently, negative means are too often the tool used to modify human behavior.

After Chuck quit, I worked hard to improve my relationships with the remaining team members. I started asking their opinion more, involved them in the training more, and most importantly, I arranged things so they would be on stage with a bird on their hand when the show ended. The audience members got to see some birds up close and talk to the trainers, and the trainers got to share their knowledge of the birds and receive their well-deserved recognition for the quality of the show. In short, I began to give the rest of the team more ownership in the show.

Things improved dramatically from there. I started letting the other trainers do the main speaking part in the show, which resulted in great improvement in the show and a huge team spirit boost. Life at the bird show was great...except for one thing. The man who owned the show was putting pressure on me to put some routines in the show that went against my beliefs.

His beliefs were different from mine, in part because of his history. He was the top bird trainer in Hollywood, and probably the world at that time. He trained all the birds for film like "The Bird Man Of Alcatraz," Alfred Hitchcock's "The Birds" and many others. He also ran a very popular animal show at Universal Studios. His background was in entertainment, and my background was in...well, I guess I didn't really have much of a background in bird shows. All I had was 15 years of keeping parrots as pets and six years in falconry. But, this was enough for me to believe that showing natural behavior of the birds and educating people about the natural world was the right thing to do. And, training a duck to pull a cockatoo in a boat across a pond was not the message I wanted to deliver.

I avoided most of the discussions about cockatoos and boats because my boss was busy with the work in Hollywood and rarely made it down to San Diego to see our show. I say our show because I, and the other trainers, had built it from scratch. We trained all the birds and developed all the routines. As I look back on it now, I realize that this was quite likely part of the problem between me and my boss; he had very little ownership in the show, other than receiving the check from the San Diego Zoo every month. For some, the paycheck might be enough. But, he, like anyone else, wanted to have his mark on his product. His mark was a duck and a boat, and I wouldn't give it to him.

After four years of doing the most popular bird show in the US, I came in to work one morning and was met by a phone call to meet my boss at the restaurant. I knew what was about to happen. It was a long walk to the restaurant and I had plenty of time to make my case for how important I was to the show and how all the birds and staff depended on me. I never got to say even one of those words.

He said his piece, handed me my termination letter, and I said thank you and was ushered back to the theater by the park security guard so I could clean out my things.

I don't know why I said thank you when he fired me. I guess I was in shock and didn't know what else to say. Or, maybe I had some weird insight that told me this single event would be one of the most important of my life. But, at the time, all I knew was my life as I knew it was over. I was devastated. For three months I blamed him for all my troubles and barely left the house. I focused on my problems and how awful it was for him to treat me that way after all I did for him. I thought he was a horrible man for what he did to me.

As I look back now, I realize that he was not a bad man at all. He was just doing what he felt was right for him, and for the show. He and I had different visions and beliefs. We were different people trying to do the right thing but coming at the situation from different directions. What happened to me was not his fault at all. I was fired because of my failure to establish a strong enough relationship with him that we could talk about our differences and work out a mutual compromise. I didn't believe him when he said it then, but I see now that firing me was one of the most difficult things he ever did.

Since that time I have had many opportunities to witness people coming at situations from different perspectives. The resulting collision is often fatal to relationships as it was to the one I had with my boss. I have grown to understand that one of the most challenging things about working with people is that everyone is different. Though this can sometimes be a challenge, this diversity of experience and opinions can provide amazing strength for projects and relationships once you accept that people can have different views and still be a good person.

The most important lesson I learned about all this is that I am responsible for my own happiness. When I am unhappy, I know I have made the choice to be unhappy. I also know I have just as much power to choose to be happy. I don't have to like everything that happens in my life. If I don't like something, I can ignore it, try to change it, or change the way I look at it. I can find the good in the situation instead of letting the problem get me down.

Unfortunately, being unhappy is often a behavior that is reinforced just like any other behavior. Think of what happens when a person is unhappy. Their friends notice their long face and ask, "Are you OK?" That opens the door for the person to download all their troubles, usually at another person's expense. This complaining behavior is often reinforced with things like "Poor you" and "He's such a jerk" and other sound bites supporting the complainer's position. As with any behavior that is reinforced, the complaining is likely to occur again. So, the complainer goes to another person with their problems and gets more support and reinforcement, which further encourages the complaining behavior. I was a walking example of this debilitating behavior of perpetually blaming my boss for my problems instead of accepting the responsibility and taking action to get on with my life.

If you understand that you are responsible for your position in life, your ability to succeed, and the relationships you build with others, then you are destined to succeed. If you rely on others for your happiness and blame them for your inability to get ahead, then you are destined to fail. You have the power to decide how you feel about situations. If you choose to find opportunities instead of problems your ability to succeed will increase dramatically.

So, after feeling sorry for myself for about three months, I finally began to run out of money. It's amazing how motivating it is to be broke. I had been thinking about going back to work at the factory, or the veterinary office, both of which I did well at but just couldn't quite feel fulfilled at either one. Then, I remembered the Minnesota Zoo had contacted me a year before about doing a show for them. Of course at that time I was working at the San Diego Wild Animal Park and couldn't take the job...but now I could.

It was early May when I called the people at the Minnesota Zoo and they flew me out immediately to talk about doing a show. They needed something for the summer and were eager to explore opportunities for a show. When I left the zoo I had committed to open a show for them in six weeks...and I owned two birds! I knew I could borrow a parrot from a friend and I could probably get some hawks, owls, and a raven or two from the local rehabilitation facility. But, this commitment was way beyond even my normally optimistic comfort zone.

Two weeks later I had my truck packed with untrained birds and I was on my way to Minnesota. Four weeks later we opened the show. Since the birds were young and barely trained we opened as a "training show." It was obvious that we couldn't do the type of show I had worked with in San Diego, so we made do with what we had. The audience members were very interested to see how we nurtured and trained the birds to fly free around the amphitheater. Many people returned often to see the progress of the young birds as they developed their skills. The show ended up being a huge hit.

This experience helped me learn a very important lesson; almost anything is possible when you put your mind to it. I also learned to be flexible and adjust my plans to fit the situation. Even though my vision was to have birds performing specific routines and behaviors, it ended up that every show was a lesson in patience and improvisational animal training and show presentation. This flexibility is now a way of life for me. It has helped me turn many potential failures into successes just by finding new ways to look at things. As the saying goes, you are what you focus on. If you focus on the failure you will never see the possibilities.

I have seen many people get so committed to their plan that they refuse to change directions at any cost. Sometimes I think they stick with their plan because they don't want to lose face or look bad in front of their peers. They believe in their original plan and will do almost anything to make it work, even at the expense of progress. People say, "don't change horses midstream." I am happy to change horses if the other horse is a better swimmer than the one I am riding.

I learned a lot about positive reinforcement by training free-flight birds. Probably the most important factor was my subjects could just leave anytime they wanted to. I was forced to have the best relationship possible with the birds if I expected them to stay with me and return to me when I set them free. I came to learn the same was true with humans. My experience with Chuck in San Diego helped me start to understand about building positive relationships with humans. But, there was another experience that really helped me comprehend the true power of positive reinforcement.

We were preparing for a show at the State Fair of Texas in Dallas. One of my top trainers, Wayne, asked if his best friend could come work with us for the six-week term of the show. Jeff was a great guy, but had no experience with birds. We needed the help, so I welcomed Jeff onto our team.

Jeff was a hard worker and did anything anyone asked of him. Since he had no experience with birds, he was the one who did most of the matt washing, general chores, and cleaning around our facility. Jeff was a follower and rarely took much initiative to start projects on his own. However, one little reinforcement changed all that.

I was walking through a tight corridor carrying a bird in a travel box one day when Jeff noticed I was approaching a trashcan and moved it out of my way. I appreciated the gesture and said "thanks, Jeff, way to think ahead." I remember the acknowledgement and reinforcement felt good to me, and I am sure to Jeff as well. Later that day I caught Jeff anticipating another situation and taking action to help out. I immediately reinforced the behavior and again said "way to think ahead."

At the meeting the next morning, I was discussing the various projects for the day when I said, "and I'll build the perch for the raven ... unless Jeff, Mr. Think Ahead does it before me. Every time I turn around Jeff is doing things before I can get to them." That was it; Jeff became "Mr. Think Ahead." He was transformed from a follower to a self-motivated worker with those few little reinforcements. By the time the show opened about two weeks later, Mr. Think Ahead was organizing the entire set-up and preparation for each show. Not only had he become a more productive worker at the State Fair show, we hired him as a full-time employee and our team became much stronger for it.

Another Important lesson in positive reinforcement was associated with the elephant show at Singapore Zoological Gardens. I had set up a bird show at the Jurong Bird Park that proved to be very successful. It was known for its free-flight birds and conservation/education approach. Soon after the show opened the Director of the Singapore Zoo contacted me about coming out to help with the shows at the zoo. I told him I was a bird trainer and really didn't know anything about training the animals he wanted in his shows. But, he said he just wanted me to help produce the shows...write script and choreograph the action, etc. So, I was off on another adventure. This time it was one that was way outside my comfort zone.

Within the first day or two I went to see the elephant-training program. What I saw surprised and shocked me. The elephant trainers were very, very aggressive with the animals. I was moved to contact some of my elephant training friends in the US. I found out that the style of training at the Singapore Zoo was based on Sri Lankan elephant-training practices, perhaps the most brutal of all elephant training strategies. I also found out that this style of training might be related to aggression in trained elephants. The highest death rate of mahouts, or elephant trainers, in the world is in Sri Lanka. Conversely, the lowest death rate of elephant trainers in the world was in the south of India where they use almost no punishment or negative reinforcement to train the animals. This gave me great confidence to introduce the trainers to positive reinforcement and hope that they would adopt the ideas.

Of course, when I mentioned the idea of giving an elephant a papaya when it performed a correct behavior, the trainers told me I was crazy. They said that if they were nice to the elephant they will lose all respect for them and the elephants would try to kill them. They said they had to act as the matriarch, or lead elephant to the others, or the elephants would turn on them and try to kill them. I had heard this idea before, but never really understood, or accepted it. I told the trainers my experience, and common sense, told me that these elephants know I am not an elephant, and they know they can squash me like a bug anytime they feel like it. If I was going to be anywhere near these elephants I wanted them to feel like this was a good thing and not a bad thing.

So, after many days of building relationships with the trainers we began to experiment with positive reinforcement with the elephants. The trainers were very skillful in their ability to read the body language of the elephants and they could see the results associated with the positive reinforcement training were a good thing. So, gradually they changed the program over to more and more positive experiences and less negative experiences.

One of the proudest moments of my career came when I returned after a short trip home to the states. The elephant trainers wanted to show me something in the show. I thought they had come up with a new behavior or something. As I watched the show I began to realize what they were so proud of. They did the entire show without an ankus, and without any aversives or negative experiences for

the animals. The animals performed their many behaviors quickly and flawlessly, all for treats, kind word and gentle pats from the trainers. After the show I reinforced them profusely for taking their skill to the level of an artist. Then I reminded them that these are still elephants and they really need to carry an auks with them.

Several years later one of the saddest moments of my career happened. I heard the zoo had just hired a new assistant director... a man who is an elephant expert and used to be the director of Colombo Zoo in Sri Lanka. As soon as he saw the show he made the trainers return to their old, aggressive, style of training. It broke my heart to hear this, but I realized that just like my old boss at the Wild Animal Park, this person was just doing what he thought was best. I talked with the director of the zoo but soon realized there was nothing more I could do. All I could do was hope that the trainers would see the benefits of the positive reinforcement and continue to go easy on the elephants.

This experience with the elephants, and my experience with Jeff and other people in my life really helped me realize the power of positive reinforcement. Everyone has the power, its learning how to use it that's so difficult. You can use negative experiences to force people and other animals to do things, or you can you use positive experiences to encourage them to do things. Unfortunately, many people are more inclined to use punishment instead of reinforcement. Maybe this is because most humans grow up in a punishing society. Parents, teachers, coaches, and even peers shape the behavior of youngsters with punishment and negative reinforcement. These are tools that most people learn to use early in life. Using positive reinforcement is a skill that is a bit more difficult for most people to learn.

The scientific community has demonstrated with hundreds of species from cockroaches to whales that the use of aversives, such as in negative reinforcement and punishment, often produce certain detrimental side effects. These side effects include: aggression, escape/avoidance, generalized fear of the environment, and apathy or generalized reduction in behavior. These side effects are not always seen in every animal, or every training session. However, when you use force, aggression, or other aversives in your training program, it is likely that you will see one or more of the detrimental side effects in your animal.

These same side effects apply to humans. If you are the type of person who punishes people for poor behavior, ("I am going to dock your pay for being late") or uses negative reinforcement by threatening with punishment ("If you don't finish that job you will have to stay after work and finish it"), you just might see one or more of these detrimental side effects creep into your relationship with that person. The person might want to avoid you when they see you walking across the zoo (escape/avoidance), they might avoid certain places, like the lunch room, because they don't want to meet up with you (phobia or generalized fear of the environment), they might become less productive or work more slowly (apathy, reduction in behavior), and they might become aggressive. For humans, this aggression is not usually physical aggression. It is most often verbal aggression or talking poorly about you behind your back.

The relationships you build with coworkers, supervisors, family members, etc., are a product of your interactions with them. Just like in training animals, the best relationships are the ones built on a solid foundation of trust. This trust is a product of clear communication, honesty, and positive experiences.

Most often, this trust is created slowly, over weeks or even months for some animals. Each time you interact with your animals in a positive way, you make a deposit at your "relationship" bank to build that trust. As your "trust" account grows, your animal becomes more and more confident in you and more willing to learn from you. Each positive experience is a deposit that feeds your trust account and strengthens your portfolio in the relationship bank.

Conversely, each time you do something the animal dislikes you make a withdrawal from your trust account. It is usually pretty easy to make withdrawals and see instant results. Spraying cold water on a rhino to get it to go off exhibit and into the holding area is a relatively simple action that gets the job done quickly. It doesn't hurt the animal and is certainly easier than training the rhino to come inside for treats. Trapping a monkey in a squeeze cage to give it an injection is quick, and much easier than using positive reinforcement to train it to accept an injection. Scolding a person for doing a job poorly is easier and quicker than teaching that person to do the job correctly with encouragement and support.

Just like in your own life, making a living requires time and work to earn that deposit at the end of the week. It is money invested in your future, but you can easily go to the ATM machine and make a quick withdrawal, just like you can always use a hose to shift an animal off exhibit. However, negative training methods can lead to withdrawals from the trust account. Make too many withdrawals and you will find yourself in the relationship poorhouse and the animal will not want to have anything to do with you. On the other hand, the time and effort spent on positive interactions - making deposits and building that trust with your animal - are investments in the future that pay huge dividends and produce sound results.

When relationships fall apart, many people end up blaming the animal instead of accepting the responsibility for spending all the trust and bankrupting the account. When this happens, I often see people come up with all kinds of excuses, just like I used to do. These excuses are often in the form of labels. "He is being stubborn," "He is hormonal," "He is just not getting it," "He is messing with my mind," "He is pushing my buttons," etc." The fact is the animal is almost certainly able to learn the behavior; the only real question concerns the person's ability to train it.

The other important question concerns the person's ability to form a relationship with that animal, or person, to create an environment where learning can occur. These types of labels are usually nothing more than excuses, opportunities for a person to blame the animal and relieve themselves of responsibility for their inability to train the animal, or form lasting, productive relationships. Benjamin Franklin said, "He who is good for making excuses is seldom good for anything else."

I have made my share of mistakes both with animals and with humans. In fact, I might go as far as to say that I have made more mistakes than most people... and that has helped prepare me for this talk today. I am a firm believer that mistakes are tools for learning and growth. Everyone makes mistakes. It's what people do with those mistakes that is important. Some people hide their mistakes hoping no one will find out. Others beat themselves up over the littlest mistakes, while some people embrace mistakes for the lessons they learn from them.

Of course no one wants to make mistakes, but they are a part of life. Mistakes have an important influence on the way all animals learn. When a gibbon misjudges the distance of the branch it is leaping toward and tumbles down to catch itself on a lower branch, it doesn't pine away and dwell on its poor judgment. It just picks itself up and goes about its business. When a lioness steps on a dry twig and alerts an impala of her approach, she doesn't sulk and worry about her clumsiness. She just learns to be more careful.

But, when humans make mistakes the rules change, probably because the consequence of the mistake is different than that of a lioness or a gibbon. When humans make mistakes, there is often another human ready to punish the behavior. A detrimental side effect of punishment is escape/avoidance behavior. A person that is punished for making a mistake is likely to try and escape the consequences in the future and avoid the person doing the punishing. When people hide their mistakes, they are less likely to learn from them, but even more importantly, they are likely to damage the trust that they have worked to build with coworkers.

I encourage people to be comfortable with making mistakes. In fact, I tell my staff that if they do not make mistakes, they might not be challenging themselves enough and growing at a productive rate. And, if they are not growing, they will not stay in my company very long. At the same time, I also require people to learn from their mistakes and work hard not to make repeated mistakes and mistakes that might compromise the health and welfare of an animal or person. We know we cannot always prevent mistakes; they are always going to happen. My job is to support the person when they make mistakes and help them learn from these experiences. I view mistakes as an opportunity to start again with more information.

Unfortunately, not everyone accepts this philosophy about making mistakes. Many people in today's society are more focused on catching people doing something wrong and punishing them for it. To help any animal, including the human animal, function at their highest level, catch them doing something right and reinforce them for it.

Fear of mistakes may also be the reason some people say they don't want to train their animals. I have heard many people say they don't want to train their animals because it is disrespectful, unnatural, cruel, or it takes the wild out of the animals. Ironically, these are often the same people who are very comfortable using a water hose to get their animals to go out on exhibit each day, or use push-boards to get the animals to come into the holding area at night. What these people don't know is that they are training their animals just as surely as the keeper who uses carrots to entice an animal into the holding area. The difference is in the tool that motivates the behavior, a water hose instead of a carrot. Which of those two is more respectful, more cruel, or more natural?

What's in it for a person who has been working successfully in an animal care position for many years to embrace a new technology such as positive reinforcement training? Old traditions die hard. Managers might even be the most reluctant to try a new method if it is something that is outside their comfort zone or outside their experience base. Some people feel they have to be right in order to be a good leader. I think the mark of a good leader is someone others want to follow. If I want a person to embrace a new technology or idea, I try to set up the environment for that person to be successful at any cost. I give them all the guidance, time and support they need to be successful. I also protect them from harm, in any form, including losing the respect of their coworkers. I create an environment where they want to be with me because of the reinforcement they receive, and the enriching experience they get when learning new skills. It's all rather like training a free-flight bird.

The last thing I want to share with you is what I have learned about preparing for the future. Years ago, I attended a motivational workshop where I was encouraged to write my own personal mission statement. The idea was that I would read these words every morning to remind me of how I should act in order for me to fulfill the goals I had set for myself. In essence, it was preparing me to act like the person I wanted to be, and the person who I wanted others to know and remember.

Few people take the time to consider how they want to be remembered. Alfred Nobel had the unique opportunity to view his obituary before he actually died. In 1888 Alfred's brother Ludvig died and the newspaper mistakenly printed Alfred's obituary. As Alfred read the obituary in the newspaper he was stunned to read the headline "The Merchant of Death is Dead!" He was shocked when he realized that people would remember him as the inventor of dynamite and a man who had amassed a fortune by helping people kill other people.

Reading his own obituary caused an epiphany that changed Alfred's life, and the lives of many others to follow. He decided he did not want to be remembered for death and destruction, so in a sense, he wrote his own obituary. He made plans for how he wanted to be remembered and then took action. When he died eight years later Alfred Nobel left more than \$9,000,000 to fund awards for those whose work would benefit humanity, not destroy it. Today he is known for his Nobel Prizes.

We all have the opportunity to write our own obituaries. We can decide how we want people to remember us, and then start acting that way. We have the power to create lasting relationships with animals and humans that enable us to do accomplish things we can barely imagine right now. In our unique profession we have unlimited opportunities to create more comfortable, enriching environments for the animals in our care. We can share our knowledge to inspire and nurture new people in this field. We can participate in conservation and education programs to give back to the natural world for all that it has given us throughout our lives. And, lastly we have opportunities to engage, inspire and empower visitors to our facilities to encourage their stewardship, and possibly inspire a whole new generation of conservation champions.

Perhaps the most important thing I have learned is the keys to success are to keep learning, be open to all ideas, treat others fairly, take chances, use positive reinforcement with people including the animals in my care, and pass on what I know.

Our opportunities are endless, the responsibilities enormous, and the rewards uniquely gratifying. There is no limit to what we can do when we go gently and confidently.

I look forward to the next few days of torch passing as you share your knowledge and light the way for all of us in this amazing field of animal keeping.

Thank you for being with me today.