The Art and Skill of Learning as Humans in the Animal Field

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I find myself consistently surrounded by amazing people with different levels of experience in our field. I have had the opportunity to witness many of these amazing people teach and learn and in turn I have learned from these experiences. By watching others learn, not just new things but new ways to do things they have done before, I have myself become a better learner. Effective learning is a skill and an art and it takes a great teacher to encourage the growth of this skill. It also takes a motivated learner who has the drive to grow this skill. It isn't always easy to learn, making mistakes is a huge part of the learning process and how you deal with the consequences of those mistakes will shape your future experiences. Sometimes it is easy to forget that the same science we apply to training animals also applies to our colleagues and ourselves.

Trust, Relationships, Honesty, Resilience

It all starts with trust and relationships. One of the first steps to teaching and learning is trust. When we talk about training our animals we talk about building relationships and putting deposits in our trust accounts. The same goes for interpersonal relationships. In Steve Martin and Dr. Susan Friedman's wrote a great paper called The Power of Trust, (http://naturalencounters.com/site/wp-content/uploads/2015/11/ThePowerofTrust.pdf) They discuss trust in depth and I highly recommend reading this paper and applying it to training any animal, human or non-human. In the paper, they operationalize trust in very clear, observable terms by saying it is a level of certainty that an interaction will result in good outcomes and so interaction increases. If someone trusts you they will create opportunities to interact with you and every interaction is always an opportunity to teach and learn. The more positive interactions you have with someone, the more deposits you make into their trust account and yours as well! It is can be simple to make deposits into someone's trust account, it can be something as easy as saying, "Great Job", "Thank You" or even just a smile or nod of approval. It is important that these types of consequences are reinforcing to the learner. Remember every learner is an individual and each individual should be looked at as a study of one to make sure your "Great Jobs" are maintaining or increasing behavior. If they are not then by definition they are not reinforcing to that specific learner's behavior. If your reinforcers are in fact reinforcing, then your trust account grows and so do your opportunities to be honest. The more opportunities there are to be honest, the more chances that individual has to learn. Make sure to follow up with that person about which behavior they preformed that earned them the "Great Job" so they have all the information necessary to repeat the behavior correctly again next time.

"The greatest gift you can give us is the opportunity to be honest with you."

Dr. Friedman said this to a workshop group of professionals on the opening day of the course. It really says it all. A truly profound way to start a learning relationship. If a learner is comfortable with open and honest communication then feedback becomes information instead of a criticism, correction becomes guidance, and failures become learning opportunities. It sets the stage for learning to begin, a very powerful antecedent. Honest communication goes hand in hand with trust. The more positive experiences a learner has, the more their trust account will build up. Every time your peers or your supervisors create a positive environment for you to interact and behave in, they make a deposit into your trust account, build your relationship and increase resilience. Resilience can be operationalized as the ability to bounce back after you get knocked down. A good commonly used example of resilience is falling off a horse and getting right back on. The quickness to return and "get right back on" comes from reinforcement history of riding a horse. Maybe the last 100 times you got on a horse you never fell. That kind of positive reinforcement history is what builds strong resilience. Every time you get a high five from a respected co-worker, or great feedback from your manager, resilience builds. It is also a great way to build trust because when one does make a withdrawal from your trust account it does not bankrupt the account. It is inevitable that at some point you may have a less than positive or even punishing interaction with a colleague. If you are resilient and have a big trust account then you can resolve the situation and come out stronger for it in the end.

Let's think about resilience and trust in terms of training animals. If you work with a bird on a daily basis, sharing positive interactions like asking a bird to step up and handing it a peanut, you build resilience and trust. Every time the bird steps up nicely and doesn't swipe or bite you, your confidence grows, trust is built, the relationship is strengthened and resilience is increased. Every time you ask the bird to step up instead of scooping him up or forcing him to get on your hand more trust and resilience grows. Now let's say one day the vet comes in and you have to grab your bird up for a medical exam. You make a withdrawal from his trust account but if his resilience level is high from all those previous positive interactions and all the opportunities you have created for him to control his own outcomes and his environment you will not damage your relationship. You may put the bird back after the exam and hand him a peanut and walk away. Later that day if you try to step up that bird which has a large trust account with you and a high level of resilience he will step up nicely with no hesitation.

Now let's think about resilience and trust in terms of human relationships in the workplace. If your boss is consistently happy to see you, empowers you to make decisions, tells you how awesome you are when you are doing an awesome job and openly recognizes your work ethic, then your resilience will increase and your relationship with your boss will grow stronger. One day

you might make a mistake, or a few (one always seems to snowball into multiples for me), and your boss may have to have a conversation with you about your behavior and how to improve it. Sometimes that can mean something as serious as a verbal warning or a write up. That type of punishment can cause a withdrawal from your trust account but since you have a high level of resilience from being empowered, consistent recognition for a job well done, "Great jobs" and high fives, your relationship with your boss will not be damaged. Tomorrow is a chance to try again with more feedback; feedback that will help you improve your behavior. The next day your boss will continue to reinforce your good behavior and empower you to make decisions that affect your environment. He or she will still say "good morning" and smile, ask you how you are doing and you will feel confident enough to smile back and move forward. Resilience plays a role in graceful mistake making. When you feel safe to make mistakes they just become a chance to start again with more information. By creating an environment for yourself and your coworkers to do this you create an environment to grow in leaps and bounds.

Confidence, Control, Art and Skill

Confidence plays a huge role in our trust accounts. Confidence is built through repetition, the more you practice something the better you will get at it. You not only get better through the process of repetition but every successful repetition is a deposit into your trust account, the more that account grows, the more confidence grows. It is easy to see a pattern forming here. Confidence, trust, honesty and resilience, they are all part of a whole. So, let's keep going and add to the whole!

Did you know research suggests that control is a primary reinforcer? Control also happens to be one of the strongest ways to build resilience. When you set up an environment for a learner where they can use their behavior to control their own outcomes it is reinforcing to that individual and, also builds resilience. First let's look at this in bird behavior. Contra-freeloading is just one way that animals choose to control their environment. Contra-freeloading is a phenomenon that has been studied in human and non-human animals. When given the option of working for reinforcers or a free bowl of food, animals tend to choose to behave to earn the same food. I have witnessed our ravens on many occasions doing just this. When we place food freely on the ground next to a bamboo shoot stuffed with the same reinforcers, the birds go immediately to the shoot and work to get every last piece out before they touch the readily available food right next to them. I have also placed food around their enclosures in different spots, some very difficult to reach, and then released the bird into their enclosure by opening their crate door and tossing in a chunk of diet. On almost all occasions they bypass the immediate food available and search the enclosure for all the hidden tid-bits, usually returning to the piece freely tossed in once the enclosure has been thoroughly searched and all hidden food has been found and eaten. Working for desired consequences tends to be more reinforcing then just receiving the desired consequence.

So, what are some ways we can empower our co-workers, staff and managers to control their environments and outcomes and help build resilience? First of all, responsibility is a great way to empower staff. Empower an employee with a new responsibility and the tools to complete the job with a goal in mind. Let that person find his or her own way to the end result. Of course, offer guidance, feedback and encouragement when needed and when it is appropriate but let them figure out their own path. Empower your management staff by encouraging them to give you feedback in a comfortable and safe environment free of defensive body language or negativity. Ask for feedback, ask questions, be positive and thank them for their help. If you get defensive or argue when given important feedback it can punish the act of them reaching out to you to help you improve. If they are uncomfortable talking to you under these circumstances then you will receive less feedback, and less feedback means less information to do better next time. So, empower them to help you on your quest to learn! Empower your peers to share ideas by asking for their thoughts, really listening and discussing their plan in a non-judgmental way. Always be honest, because we don't want to make a withdrawal from their trust account, but be honest in a non-threatening way. Be honest while also being kind. Don't discount their idea; there is more than one right way. Catch your colleagues doing something right! Recognition can be a huge reinforcer, so let them know when you see them doing something you appreciate. Let them know when you see something so great that you are now going to model your behavior after theirs. You will reinforce great behavior and build resilience and great relationships at the same time. Assume good intentions from those working with you and remember all of you are working toward a common goal, to learn and grow so you can provide the best welfare and best practices to your collections.

I was once working with a new female Bateleur Eagle (*Terathorpius ecaudatus*). Another trainer and I were the primary trainers on this bird with a few goals in mind, to build a relationship, reinforce calm comfortable behavior on the glove and eventually walk this bird out on stage on the glove for show. We were seeing some biting at the glove, displaying with wings out head low and vocalizing when we approached, so we discussed possible strategies to reinforce behaviors we wanted to see, incompatible behaviors with the aggressive ones and what we wanted the bird to do instead. We both had two different approaches to this problem and we discussed them together in a comfortable, easy way. No one felt threatened or defensive but I still found myself pushing for my idea over his. When I realized I was doing this I stopped and thought for a minute. Was I pushing for my idea because I wanted my solution to be the one that worked? Both ways were possible solutions and it was my Friday, about to go on weekend, he was the one who would be working the bird the next two days. We decided together that his idea was the best course of action, go with his plan over the next two days and have a conversation about it when I got back. If he was seeing progress then we would both continue on this course when I returned for a few more days to a week and then revisit. We discussed my idea as a plan B and even came up with a plan C if we didn't see progress with either one. The conversation was easy, my fellow trainer was to use his idea and we had a clear plan with goals in mind. By showing my trust in him and his idea, our trust account grew. Sometimes we push for our own ideas because we want them to be right and see if they will work! Being right and seeing

your ideas come to fruition can be very reinforcing. In the scenario above, we came to a conclusion where we could solve the training challenge together and we built on our professional relationship in the process. That was reinforcing all around, for us and for the bird.

It takes a skilled and artful teacher to encourage the growth of confidence. I feel confidence is being able to share your thoughts and ideas without being afraid to be wrong. It is a lot easier said than done. Even the most confident person can doubt themselves in certain environments. A great example occurred when we were playing a fun game we like to call "The Feather Game" at a workshop icebreaker. We had different tables set up with centerpieces and each of the centerpieces had feathers, which were all from the same species or group of birds. We asked each group to guess what bird's feathers were in their centerpiece. We play this game with each other all the time at work, it is a fun way to learn to identify feathers by species and if you want to reach expert level you also can identify where on the body the feather came from. There was one grouping of feathers that stumped even Steve Martin and Dr. Friedman. They made a few guesses as to the species but none were correct and when I told Dr. Friedman the correct answer, which was Bateleur Eagle, she said something very profound. She said, "I wondered if Bateleur Eagle was the right answer but I didn't have the confidence to say it out loud." That really struck me. Here is this amazingly smart, confident, applied behavior analysis professor and guru who we all look up to and even her behavior was affected by the environment. She was aware that she was surrounded by bird trainers who play this game. She didn't want to answer incorrectly. We have all felt this way at some time. Maybe if it were just she and I one on one she would have taken a guess out loud. Maybe if she had played the game before and been successful at guessing she would have voiced her answer. Maybe if she hadn't been standing next to a bird expert with over 30 years of experience she would have spoken up. The point is there are many factors in the environment that can affect confidence. If we want to help confidence behaviors increase in our fellow employees then we need to look at the environment they are behaving in. Just like training animals, it is about antecedents and consequences, setting the stage for the correct behavior to occur and making the correct behavior worth doing. The correct behavior in this case was taking that risk to make a good guess out loud.

Some people are just naturals at encouraging confidence and relaxed behavior from their co-workers. Those people are naturally able to make others feel comfortable around them, they usually smile easily, aren't afraid to discuss thoughts in an easy-going manner, aren't afraid when others are right, aren't uncomfortable about being wrong, and above all their goal is to learn. If you approach any situation with the goal in mind that no matter what happens you want to learn something and you go about it in an honest, open and kind, positive way then you will learn and you will grow relationships. I put kind in there because this is one label that I find will make or break my relationship with a person. Kind can mean different things to different people but I find that most people can recognize the behaviors that would warrant the use of the label kind. Some examples are calm even tone of voice, positive attitude, relaxed body posture. If anyone says anything to me, as long as it is said with good intention and in a meaningful and just all around kind manner, I can take any feedback, seriously think it over and put it to good use to help improve my behavior.

I asked Dr. Friedman a few questions when I started doing research for this paper. She came up with 10 amazing tips when giving, getting and applying feedback.

- 1. Feedback should be solicited among peers, not required.
- 2. Feedback should start with questions, not conclusions.
- 3. Feedback should include both positive observations as well as constructive criticism.
- 4. Feedback should be observation oriented not interpretation oriented.
- 5. Feedback should be informative not evaluative. (specific, not vague judgments)
- 6. Critical feedback should generally precede positive feedback, lest the positive feedback become an S- for punishment. S- is a stimulus that signals a behavior will not be reinforced. (Meaning the learner will always expect when told something positive that something negative and/or punishing will follow.)
- 7. Critical feedback should always include what the person can do to change what they do, i.e. leave them empowered to change.
- 8. People should always be given the opportunity to respond and discuss feedback.
- 9. Feedback should be given in digestible quantities, a per study of one. Prioritize the easiest to change first vs. the most important.
- 10. Feedback should include follow up and revision. If you care enough to critique then you should care enough to check on me!

If someone approaches me with feedback that is threatening, in a harsh tone or said in a way that is hurtful instead of helpful I feel myself get defensive. "Kind" should not be confused with "sugar-coated". You should stay true and honest to the feedback you are sharing with someone, just say it from a good place. If it isn't coming from a good place, such as genuinely wanting to help someone improve, then it shouldn't be said. Put yourself in their shoes, think how you would feel given similar feedback and be empathetic. Shape for the behavior you want to see with clear criteria in mind. Don't ask for or expect too much too soon. Break the desirable behavior down into approximations so that the learner can be successful at. Facilitators of learning behavior are people who avoid using aversive strategies whenever possible. Just like with our animals we want to use the most positive, least intrusive methods with our fellow colleagues. If you are truly a great trainer, you study the science behind behavior and apply it effectively to human and animal relationships alike. You can learn the skill of accepting feedback and putting it to good

use but the artists of accepting feedback ask for it, they yearn for that information so they can constantly improve and they naturally encourage others to continue giving feedback on a regular basis.

We live in a world where punishment is the status quo. Do the right thing otherwise you will *suffer* the consequences. Let's change that to do the right thing and you will *earn* the consequences. Can we try to make all of our consequences for behavior something the learner works to receive? This world we live in where punishment dominates our learning environments comes from people learning from other non-expert people. Conventional wisdom, or what many people think of as common sense, can cause the perpetuation of this problem. We hope that through understanding the science of behavior change this cultural norm can be changed to one of encouragement, positivity and honesty. Can we take honesty to a whole new level, a level where we can comfortably inquire about experience levels and the origins of our colleagues' knowledge to ensure we do not perpetuate conventional wisdoms? Wouldn't it be great if we could all comfortably ask each other, "Hey, where did you learn that?" or "Who taught you that method?". We should all be comfortable to ask these questions, but unfortunately many times we are punished for asking something like this. How can we as trainers take responsibility and set up our antecedents and consequences to make this behavior easier and more reinforcing? We can set the environment up to allow this question to feel non-threatening to the one we are asking. When someone teaches you something new, instead of asking, "Who taught you that?" with a sarcastic tone and rolling your eyes, say, "I would like to find out more about the information you are sharing with me. Who did you learn it from?" Be honest and tell the person you aren't looking to discredit them, but you have never heard that information before and you would like to know more. Encourage discussion so you can research together best practices from educated scientific experts.

Experience, Consequences and Mistakes

Experience is such a big word. On job postings, you will usually see how many years of experience are required to apply. On your resume, you write how much experience you have with a certain taxa. At work your manager may ask that you gain a little more experience before taking on that next big responsibility. What does this heavy word that affects our careers so much really mean? Experience in its truest form is just contact with the environment. The more contact you have the more information you have learned from the environment around you. To gain more it just takes time. Now this also doesn't mean that all this experience is good experience. Sometimes you learn hard ways to do things, sometimes you learn incorrect ways to do things and sometimes you experience something that will make you never want to experience that again. It is all just information and what you do with it is what really counts. This is why it is so important to be an active and skilled learner, to continue to ask those questions about where the information that is being offered to you came from. You don't know what you don't know. You may have learned something and been doing it one way for years and then one day discover there is a better way. Unless you seek out information you can't know what you haven't been exposed to in your environment yet. Even "bad" experience is a learning opportunity; you can see what not to do, or what you can do better. All experience is important, even if it is something you have seen done a million times. You can always learn new ways to do old things and you should always be seeking out new information to improve what you already know. The best learners are the ones who are constantly seeking new information, so you DO know what you don't know, whether you have been in the industry for 30 minutes or 30 years.

When you are learning, changing your behavior as a result of contact with the environment, you are going to make mistakes. Mistakes can be punishing and sometimes that can hold humans back from trying something new or putting themselves out there to learn. The thing about mistakes is we all make them! We can share those mistakes and find support when they are tough. How can anyone expect to do something perfectly, or at all, the first time and how can anyone expect someone else to be good at something they have never done before? You need feedback from your environment to improve your behavior. One of my favorite Steve Martin quotes is, "Mistakes are just opportunities to start again with more information." It is so true. It is ok to NOT be good at something early on, when it is new to you, and no one should make you feel uncomfortable for not doing something right the very first time you try it. You have to learn and go through a process to improve, a scientific process. It is how you apply that process that will show how much and how fast you will improve. Consequences drive future behavior. When you make a mistake, you know it was a mistake by the directly related consequence for that behavior. The word mistake is really just a label for an unsuccessful repetition; the desired consequence was not achieved for that approximation. So, you try the behavior again, but this time with feedback, you revise your approach, adjust the environment and try to reach the desired consequence. If you do gain the consequence you had hoped for then you apply that information to repeat the behavior in that fashion so that the consequence, or reinforcer, you want is obtainable again. Some people are so afraid of failure they don't even try. That's because when they have made mistakes before the consequence was so punishing that they never want to experience that again. Don't be afraid of consequences, punishment is there to protect us. It is there so we don't hold the nail the same way twice and continue to smash our finger with a hammer. We need that feedback to survive, to improve and to evolve, so embrace it and remember it means you are that much closer to your goal.

I have had the opportunity to be a workshop team leader in the Natural Encounters Contemporary Animal Training and Management Workshop and each time I experienced growth from students of all experience levels. Each team leader has a small group of students they help to mentor through the practical and hands on experience portion of the workshop. They take the information they learn in lecture and put it to use in the field with live birds. As team leaders, we are there to help guide the process and give them feedback. The first time I was awarded the opportunity to be a team leader I was very honest with all of the students from day one and let them know this was my first workshop as a team leader and how excited I was to learn with

them. When we work with the groups we make sure that all of the students have a voice, feedback is encouraged between students and I encouraged them to give me feedback as well, and still do with each workshop I help lead. That first team I worked with worked so well together and it was such an uplifting experience to see five people become so supportive and comfortable with each other in just five days. All of them appreciated my feedback and I was able to watch them improve and learn from my help! I had a great support team of my own from the workshop instructors, mentors and fellow team leaders. If I felt stuck or needed help I was happy to involve them in a training session. The best part was how comfortable everyone was with me teaching them even though it was my first experience. In that first group I had one student who had three times the amount of experience in the bird training and show world as I do. You might think it would be hard for someone with a ton of experience to learn from someone with less but in this case, and many others I have observed, this continues to be a non-issue given the right environment. It also takes a skilled learner to put him or herself out there, especially when they are usually the teacher. It can be equally as difficult to put yourself out there to be the learner if you are brand new in the industry. It can be tough to be the one who knows the least but if you are the one who knows the least then you stand the chance to be the one to learns the most. If we continue to build relationships and apply the science of behavior to our human interactions we really can, as Dr. Friedman always says, change the world.