

2024 Virtual Empathy Summit_ Day Two

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SPEAKERS

Meagan Ashton (Seattle Aquarium), Sydney Dratel, Emily Bernhardt (Woodland Park Zoo), Marta Burnet

E Emily Bernhardt (Woodland Park Zoo) 00:03

resume recording. Hi everybody. I'm Emily Bernhardt, the empathy network specialist at Woodland Park Zoo. So welcome to day two. Before we get started today, I'd like to lead us in our network land acknowledgement. So across the region of the network, we recognize that we are on the lands of tribal people. We acknowledge their stewardship of these places continues to this day, and that it is our responsibility to join them to restore the relationship with the living world around us. We also want to recognize that this idea of having empathy for wildlife is not a new idea. While conservation as many of us know it stems from these Eurocentric ideologies, empathetic mindsets for living with wildlife have existed for millennia and cultures worldwide, both as a worldview and or as a method for coexistence. Now, if you are unable to make it to day one, or you missed the introduction to day one, and this was the first event that you've attended as being a part of the network, I just wanted to give a quick overview of who we are. So the advancing conservation through empathy for wildlife network is a learning network that creates and shares effective practices to foster empathy for animals and people, leading to conservation actions. And we define empathy as a stimulated emotional state that relies on the ability to perceive, understand and care about the experiences or perspectives of another person or animal. We're currently made up of 27 AZA accredited zoos and aquariums called our partner organizations, and staff at those organizations who have made an account on our website, and allows them to access our resources, events, and a discussion board are called our network members, we have about 250 of those. We also have over 100 individual affiliates worldwide at over 70 organizations, which is super exciting. Now, if yesterday when you were hearing about all of the work that folks in the network are doing and that we're super excited to you are super excited to you. And you want to get involved with the network and a more involved way, I did want to pitch that we have four committees with open seats on them, our membership communications, steering and strategic learning committees. Involvement in these committees is about 60 to 90 minutes a month. So about an hour meeting and then any extra work outside of the meeting to prep. For the following one, we have three available seats on the membership committee and this committee would allow you to participate in early phases of network expansion. Because of that, you'd be able to see immediate impact as in work as the network grows. We have two seats on our communications committee and this committee works to enhance how we share our empathy work within the network. And we also work to help people connect and collaborate

effectively within the network. So if this is something that you're really passionate about, maybe that committee is a great fit for you. Otherwise, we have one seat on both our steering committee and strategic learning committees. The steering committee supports the priorities and goals and network structure and also creates plans for a sustainable network future. And Megan is plugging the communications committee in the chat. They're a pretty cool group of people, um, and the strategic learning committee, it shapes the learning priorities of the network, and develops resources to support empathy implementation. So if you receive our newsletter, last week, the 2024 edition of the empathy training toolkit was announced in that newsletter. That's a resource that this committee puts out and edits every year, to kind of give you an idea of some of the stuff that they do. If you're interested in serving on a committee or have any questions about what it means to serve on a committee, definitely feel free to reach out to us at empathy@zoo.org and let us know. Otherwise, if maybe getting involved in the committee seems a little bit too much of a time commitment for you. But you still want to kind of get involved in the network and know what we're doing. We have a variety of events coming up that I'd love to see you attend. So this month, we have a brainstorm to put together some empathy related panels for AZA. So if presenting, AZA is a professional goal of yours, and there's empathy related projects that you would love to share with the Zoo and Aquarium world, highly encourage you to come to this event. We hope to have at least one panel put together by the end of that hour. And we're doing a little bit early because the deadline to get in those presentation proposals for AZA this year is pretty early. So we kind of want to get those groups together as soon as we possibly can. Now, if presenting AZA is a goal of yours, but AZA is too expensive, and that's a barrier to you attending if you are a network member. So you're somebody who works at those 27 partner organizations, you are eligible to apply for a scholarship to cover a part of your travel and lodging and just attendance at either AZA or any other professional conference as long as you're speaking and an empathy related topic. I So if you want to attend this event in February, keep in mind that there is that scholarship opportunity for you to cover part of your expenses to the conference. And then in March, we have two events coming up. We have one with Elizabeth Ralston on March 7, around prioritizing accessibility actions. She's a consultant and accessibility consultant here and see how all that didn't get back with us last year. And this one in March is going to be very discussion focused. And she's going to lead us through a guided discussion around what it looks like to both prioritize and implement accessibility initiatives or your organization. Because it's going to be very discussion focused, it is not going to be recorded as we want to facilitate a safe space for people to candidly share their thoughts and opinions. So if this is something that interests you, I definitely recommend prioritizing that hour on your calendar. So it's kind of a one and done to receive that information. Otherwise, we have our learning groups coming up on March 27, about biofacts. Collections and related programming. So we'll hear from folks at Woodland Park Zoo, Zoological Society of Milwaukee, and Minnesota zoos, both on the implementation of empathy practices in programs that use biotechs, but also the evaluation of those programs. And then in April, we have a learning group focused around animal fact sheets. And we'll hear from some familiar voices and some new ones as well. In this conversation, we'll hear from folks from Henry Vilas, their Fact Sheets replied yesterday. And we'll also get them folks at Zoo Montana and the Oakland Zoo. But now I'm gonna go ahead and turn it over to Sydney to talk about some upcoming grant presentations.

S

Sydney Dratel 06:35

hi for those of you who haven't met me, I'm the empathy Grant Specialist at least until next week. And if you weren't at the summit yesterday, I'll just give a brief overview of what the grant program is. It's the building organizational capacity to foster empathy for wildlife granting

program. And there are 19 organizations within a seven state region set by our funder that are eligible. And these grants help to increase the capacity of AZA accredited zoos and aquariums to develop and deliver effective programming aimed at advancing empathy for animals and wildlife. And so as you can see, we have a lot of presentations coming up. These are grantees from our first three rounds of grant funding, which started in 2021. And so as you can see, they span a lot of different focus areas from early childhood education to Culturally Responsive Programming, to exhibits and master planning. So we definitely encourage you to attend these presentations, as on that last slide. Bio facts, there's a current grant project focus on that fact sheets, as Emily said, Henry Vilas Zoo created some as part of the grant, a grant project, there are a number of other grantees who have also created those resources. So these are a great place to hear about how you can implement empathy practices in a variety of ways across a variety of different zoos and aquariums, ones that are very small to very large and ones like yesterday, hearing from Leanne at the grizzly and Wolf Discovery Center, seeing you know how a grant can be implemented there versus somewhere like Lake Superior Zoo. So if you look at the link in the chat that Sarah just put in there that says all network events, events and presentations, if you click on there and make sure you're logged in, you should be able to see all of the registration links, and we hope to see you there. And if you register and you can't attend, they're all recorded. So definitely encourage you to register. Just because I'm sorry, if you just heard my cat. She's being really loud. Yeah. So hope to see you there. And there's so much great stuff to learn from grantees.

E

Emily Bernhardt (Woodland Park Zoo) 08:34

Thanks, Sydney. Oh, here's our agenda for the day. After I'm done doing this kind of intro and many things. I'm going to pass it off to Liz Hines from the steering committee, and she's going to lead us through our annual bylaw vote. And then we're going to hear from Dr. Susan Friedman, who's our guest speaker for the event. Then we're gonna go into a bit of a break. And then after the break, we're going to have our back to back interactive sessions. Now, each one of these sessions, the unconference and the planning for the future session will have their own dedicated, like instruction portion at the head of the session. But I do just want to give you guys a bit of a primer of what these sessions are kind of designed to do. So it can percolate in the back of your brain through the remainder of the day. So as Megan prefaced yesterday, the unconference session is really the chance for you to talk with others in the network that are interested in the same topics and questions that you are. So Sarah is going to drop a link in the chat that's going to take you to this document that has all of the links we're going to be using for day two. And that's going to include this neural board in which you can populate the ideas that you want to talk about in the unconference session. And there's currently two rooms in there that have already been populated in as of yesterday and an example so you can kind of see the template to follow when putting your ideas in. Like, there's a chance to do this at the beginning of the session. But if at any point during like the guest speaker, or the break something pops into your brain and you want to just get it in the board, it's there for you to do so. And then are planning for the future session. This is the chance for you to help influence and brainstorm the future directions of the network, the granting program and empathy evaluations, we're in the process of writing the next grant to keep this work going. So ideas that you present during this time, have a very real chance of being put into and incorporated into that grant proposal. So I will be leading the room in the network. Sydney and Marta are going to be in the granting program room and Theo is going to be in the evaluation room. Now again, if you have any questions about any of the sessions, or the summit in general, or zoom that during any point during this event, feel free to shoot me a direct message over zoom or

email us at empathy@zoo.org. I'm going to go ahead and transfer it over to with Heinz from Point Defiance Zoo & Aquarium who is a representative on the steering committee to lead us through our bylaws. Take it



11:05

away Liz



11:07

right. So as Emily said, my name is Liz Heinz. I go by she hurts. And I am one of the members on the steering committee. I've been a member for two years. And one of the really great things that we get to do on the committee is we get to help kind of take all of your great ideas and kind of form it into what we want to do in the future. So that kind of what we did last year is we kind of took our bylaws that we created. And we took some feedback from everybody and kind of looked at how we could integrate all of your feedback in kind of take our bylaws and step them up a little bit notch. So the idea of the bylaws is to, to kind of create common terminology. We use a lot of acronyms and different terminology. So we wanted to make sure that that was equal throughout the whole network. We wanted to make sure there were requirements for partner organizations and affiliate part participation. So there's some little bit of changes in there that we created this year, especially with onboarding a lot more affiliates, which is exciting. We also outlined the process to expand to partners, organizations and affiliates. And then the process for establishing new committees that was really kind of organically created by the DEAI team, which I think was really great. But we they really wanted some more guided structure to how to create a committee. So we work that into the new bylaws. And then in the bylaws, we also created a structure for collaboration, network governance, and then also allowing for sustainability. So kind of creating that next slide. So the process that went through so late last year, we reviewed it and got all the some feedback from different organizations and everybody on the ACE, everybody who wanted to get feedback on the ACE network. And then just in January, which I can't believe it's 2024 we finalize, kind of all the feedback and added it in onto the bylaws and then shared that on discussion board and then got some more edits some feedback and then we finished up with the bylaws. So the reason why we bring it up is because we need to pass the bylaws and get you guys to all agree on it or disagree and we can edit and change if we need to. Next slide. So we're gonna do a vote of either yes or no, we do ask that. This is the bylaws have been sent out to the network. Oh my gosh, the network staff sorry, my cat is like meowing in the background to be very vocal today. So we do ask that only your committee delegates vote on this and everybody else can abstain for any questions, and we're gonna pop up the poll already so you put yes no or abstain. And if there's any questions, let me know.



14:42

Give everybody a couple of minutes to reply.



15:00

All right you guys are fast voters. So the 2024 bylaws have been passed. So you guys did a

All right, you guys are just voters. So the 2024 bylaws have been passed. So you guys did a great and awesome job. And if you want to look at the bylaws, if you haven't gotten to see them, I believe Emily put them in the chat already. So thank you. Oh, and I'm gonna pass it to Theo,

E

Emily Bernhardt (Woodland Park Zoo) 15:32

I think to me. Sorry. Awesome. Thank you so much, Liz. Thanks to all of you who reviewed those documents and voted and that 2024 document. Once I'm done like finalizing it and putting it into a PDF document, you'll be able to find that on the steering committees page on our website. But it is my pleasure to introduce our speaker for today. Their name is Susan Friedman, and she's going to be presenting what's emotions got to do with it. Susan G. Friedman as a PhD, professor emeritus at the Department of Psychology at Utah State University, and the owner of behavior works consulting, LLC. Susan has co authored chapters on behavior change and five veterinary text and her popular articles have been translated into 17 languages. She teaches seminars and courses on animal learning online, and which has been attended by students in 64 countries so far, Susan consults with zoos and animal organizations around the world and teachers yearly for the British and Irish Association of Zoos and Aquariums, animal trainer accreditation program, she was appointed to the Fish and Wildlife Service California condor recovery team from 2002 to 2010, after which the team was retired to the success of the birds in the wild, and is currently the chairperson of the scientific advisory committee of the American Humane Association, film and TV unit. Soon as Susan is honored to receive the Lifetime Achievement Award from the Association of pet dog trainers, and see behavior works.org and facebook.com/behavior works, I'll drop those in the chat to learn more. But I'll go ahead and stop my screen clearing and pass it over to you, Susan, we are thrilled to have you here today. Thank



17:23

you so much, I feel a little overwhelmed by being with all of you because this focus on empathy and empathetic or empathic behavior is so needed in the world today. And for you to articulate what that looks like and how it can look differently for different people related to different animals in different situations. I mean, this is just really the most laudable work. And it's uncommon, isn't it? It's not enough people have this on their agenda. So bravo to all of you. And I'm honored to be here. And thanks to the to the committee who helped me be unscattered heard, I'm in a particularly scattered place right now. And so I kept asking questions, and not knowing where I was supposed to be, but changing my time. And you've all been unbelievably gracious and supportive, in my time of profound flakiness, so I appreciate it very much. Let me share screen, I've got chat over to the left. So if you see me looking over there, that's what I'm doing. And I welcome your questions or comments as we go. And there'll be time I hope, afterwards for any for any discussion. So I'm going to start by sharing. Let's see, Zoom has a new look, by sharing just the presentation screen. And sometimes that doesn't work. So let me just make sure that up play this and you tell me if you can, if you can hear it. And if my slides are moving, Emily, maybe you can just give me the thumbs up? Well, it turns out of course, that comedians, you know, are unbelievable observers of human behavior. And so much social commentary and behavioral commentary can be found in their work. None other than then we'll make sure you can hear this. I'm in a glass case. I'm in a glass case of emotion. Did it switch the slide? Yeah, we can hear and see them perfectly. Okay, great. I'm gonna keep your thumbnails here even though I might have to dance around them a little bit because some it

helps me to see your faces. So we need to start with a question. The point of view that I'm sharing with you, for those of you who know my work and I do recognize some of you is from behavior analysis, the natural science of behavior and learning. And I contrast natural science to social science. Meaning that our, our sort of Premier focus is on that part of behavior and learning that is part of the natural world. That is part of the evolution of all the species on the planet. And, and that is a part of our biological endowment. So we don't think of, of learning and behavior as psychology in the sense that we're not other the study of how behavior works is part of the study of the natural world, like chemistry, and biology and zoology. So it's a definitely a different spin. Even though we live in the colleges of psychology, I feel we really belong in the School of biology. So that just gives you an overview of just really where my starting point is, or where my lenses are, are focused. So we start with the question. It's really the question of all time is, how are we even talking about emotions? Without having a common definition? And we are as a science, natural science great operationalizes. That is we describe the operations of behavior, what does it look like to be empathic or sympathetic? And what is the difference? So are we talking when we talk about emotions? Are we talking about physiology, that is the sensations that we experience in our bodies that are due not just our brain, but our brain and our gene expression? And our circulatory system? The whole body? Senses? Are we talking about perception, which is the interpretation of those sensations? So my, I feel the sense of my stomach churning, and then I give it meaning that I'm excited to present with you today. Are we talking about behavior? And if we're talking about behavior, are we talking about behavior that's innate, and species typical? Or innate? And across all species? Are we talking about operant behavior? That is behavior that has been learned, and is selected by consequences? Are we talking about private behavior, what we would call feelings and thinking behavior? So all of those, and probably more are on the table when people talk about emotions. And it's really important that we first decide what is it we're talking about, in order to have really productive conversations, there's no sense talking with someone who's thinking about perception, or internal behavior, if I'm talking about sensation, and overt behavior. So we need a contemporary scientific understanding that is valid and useful. And of course, that's not going to be just one thing. Because we know that one of the things that really represents the best science can do is to disagree, and to disagree well, so that the information keeps moving forward. So this really charismatic presentation of emotions that we all adore, is unfortunately, not even close to what's going on on any of those levels. Although it's not a bad metaphor, for example, in teaching children to track what they're feeling that that churning stomach, the dry mouth, and then teaching them to observe the environment in which they feel those things, and giving them a name. I'm excited, I'm frightened. One of my favorite little monographs, if you're interested in grabbing an old edition, always the old editions, that's what I recommend, because they're very inexpensive. And the new editions that are expensive, don't change that much. It's a little monograph super readable, called How to think straight about psychology by Stanovich. And he said in that, in the opening of the book, we must give up on the idea that personal recipe knowledge of human behavior, and we could put human in brackets in behavior is adequate, that it's the only psychology we need. And that's one of the problems with the discussion is also about emotions, but about everything is that people tend to rely on what I've come to call the cultural fog a quote I grabbed from a nobel laureate winner in the 40's, Myrtle, that we make mistakes of thinking about our world because of this cultural fog that we live in which of course, you you're dealing with deeply when you talk about a construct, like empathy. And its, and it's different behaviors across different cultures. So I found that to be really profound little quote is that it's just not enough. It can be our personal experience is part of our evidence base. It's not only our science research, it's also our personal experience. And it's also our the third leg is the situation in which we are in. So when we talk about evidence base, we're talking about all three of those things. But we're not just talking about personal experience alone. So I think there is value in distinguishing between. And I heard it even in the

conversation I heard when I first came on distinguishing between emotional feelings, which are what your body is doing inside that is private to the body and private to the individual feeling it and emotional behavior, which is we use that phrase to mean, the overt behavior, or the measurable behavior that those of us are really interfacing with, when we work with our animals. Take a look at this adorable creature.



26:43

Love you, oh, my God. Maybe getting better believers.



26:56

So I mean, not only is it the, you know, early demonstration of a sense of humor, which I had an 18 month old grandson Jack, who his sense of humor was apparent, really, really early on, even when he reaches out his cheek for a kiss, and then turns away when you get close. I mean, it's really amazing how early these things come on board, and how early our opportunity to teach values are a little example. As we consider how to teach him the value of empathy, and other other emotions that are outward directed that will help him help others. Not quite related, because he's so young. But the other day I observed him playing with a toy. And then before he moved on to the next activity with me, he said, back and picked up the toy and put it back in the basket. And I thought, you know, this is a stunning display of that early learning. So that could be the value of the items you have, it could be the value of keeping things orderly, to advance, you know, the day. I mean, it's astounding how quickly it happens. Or it's available for teaching, and how important it is that we see it, know it when we see it, and then start teaching to it. So I love this video for a million reasons. One thing is you could hear someone say she's getting better. And so I'm imagining that she learned a lot about soliciting the kind of help she needed with her behavior with that sad face, which was reinforced by people coming to help. And that cry, which she could then turn off like an actor, when she pulls her her hand her arm out of the out of the tub. And so what have we got here is when we see her crying with that face, it evokes and elicits in us both our learned reaction and our reflexive reactions of, of caring of empathy, only to find out that she's playing us, right. She has everything in order in terms of behavior, but we can't know her feelings. So that makes emotions a really hard problem to study. But you know, we do especially this group, I'm sure do hard things every day. So we're not going to be deterred by the difficulty. I can't know your private experience and you can't know mine. And this, you know, I think it comes up in a future slide but I've moved to go there. Now. This reminds me of discussions of anthropomorphism, which is adjacent to empathy. And I recommend to my students and participants in my it in my presentations, that we celebrate anthropomorphism. Because, first of all, it's just a label, like empathy. What do we mean by it. But the problem that I want people to consider is that it's not an issue of me not being able to know what an animal is experiencing. I can't know what you're experiencing. So this problem of anthropomorphism is as true human to human, as it is human to non human, I can't know what you're thinking, I can't know what you're feeling, I can only infer it from the behavior and conditions, they always go together. Because conditions are always moving our behavior, we don't behave in a vacuum, in isolation of our environment. I can't know what you're feeling, I can only observe what you're doing in the conditions that you're doing it and then infer from my own experience, and my art. And I could be right or wrong, as with that baby. So really, the problem is much more pervasive than anthropomorphism. It's Susan pormorphism, and Emilypormorphism, and Sarapormorphism. When you look at my behavior,

and you observe the nuances of my expressions, and my tensions and my hands are doing, and you look at the conditions that I'm in, to infer is that happy? Is it afraid, depending on whether I'm in the dentist office or in front of a birthday cake, you know, you you take that inferential risk that you are wrong about what I'm feeling inside me. So I point that out, because there's also a line, we can't cross with one another. And that we have to have those flags come up, that we're now stepping on to inferential thinner ice. And even when people say, well, at least with humans, we have the verbal bridge. So I can ask you, I see that you're very tense, what's going on? Do you want to share? You may or may not know what it is, you may or may not want to tell me the truth. I have a psychotherapist friend who says Don't overestimate the verbal bridge. My clients don't tell me the truth, often. So even though we have the verbal bridge, and even though we have similar evolutionary history, as individuals, we have the same problem. being empathetic to one another as we do two species outside of homosapien. In my opinion, that's really worth noting. So when we report feeling grief, do you feel the same same sensation sensations that I do? When I say I'm grieving the loss of an animal? You understand that? I'm uncomfortable that in the environment, something, you know, troubling has happened, negative has happened. But when it comes to exactly what I feel in my body, or my private thoughts, there would be no way for you to know whether or not we have the same sensations. And I realized that that problem is just like perceiving color. Color is not the property of a thing. So this is not a Oh, this one's a hard one to identify, is it fuchsia, or let's call it red, I don't know what you're seeing. I only know that when you see this, we have learned to give it the same verbal label. So you and I see it, and we call it red. And if we're speaking Spanish, we call it Rojo. And if you know, all of the different languages will have a different name and it's conventional. And it's part of our learning history. We could call it something else but we've learned to call it red or fuchsia, but I can't know what sensations you're eyes are sensing and what meaning you make out of it with your perceptions. If any of you have ever put the different wavelengths on a bird apparent in particular, you will see how color is not a property of those birds feathers. It's the wavelengths through which we're perceiving them. And I'll show you I'll move this there's a same mushroom under two different wavelengths.



34:49

So when I did a deep dive, I started really learning about emotions from the behavior analysis perspective and From the psychology clinical psychology perspective, and then from the experimental perspective, about 10 years ago, and I divided these big stacks of articles into two categories. So this, this categorization is mine from reading the literature. And following the trails, that there were really two main views about emotions. And we could probably do more subtypes. But in a gross categorization, there is the classical view, which most of us hold, given our cultural learning. And then there's the constructional view. And I'll explain these two views. The constructional view holds that we are experiencing body sensations, and the meaning that we give them is part of our learning history. Okay. So what was amazing to me and exciting was that these two views, cross disciplines. And that's always my favorite thing in doing research is when the behavior analysts, and the neuroscientists are saying the same thing, which happens most often. And when the psych there are psychologists, her joining up, and I always feel like when different levels of analysis different science siblings come to the same conclusions, that we're really hitting something true about the way the planet works? Or maybe not, and science will correct over time. So this is a tough slide. I'll put you down here for now, because it has so many words in it. But I wanted you to, and I'm not sure I sent the PDF, but I'm happy for everybody to have the PDF. Yeah. When I build slides this dense, it's because I want you to have everything on a hardcopy that you can go back to, or a PDF copy. So let's do the classical view first. And I and I think you'll find it at least parts of it very familiar, because

it's what most of us have grown up, at least in the Western world. Learning emotions are innate. They are they are hard baked into us when we're born. They are tangible. That is they're not abstract concepts. They are things and they're discrete, distinct, locatable entities, inside our brains and our bodies. And they're the result of natural selection. Everyone is programmed to react similarly. And that was the first leg for me, is it really the case that we all react similarly, given a certain set of environmental conditions? Do we all behave the same way, when something in the environment occurs, that makes us feel angry. So I picked two of the names that people might know, those of you who have studied psychology, may remember Plutchik, and His Wheel of Emotions. He's a psycho evolutionary theorist, about emotions. And he proposed that there are these basic emotions, and that all the other emotions spin off from those basic, that basic set or bundle, and that emotions are biologically primitive. I'm sure you've heard this, because the the neurons are in the primitive part of the brain, suggesting that they had been part of the very, very early time of a motion of evolution, and that they were selected because, as all evolutionary explanations, they were selected over the generations because they increase survival, that animals that steal one of these basic emotions might run fast or faster, or freeze better, and so forth. Therefore, we're able to pass those tendencies on to the next generation. They believe that each emotion triggers behavior with high survival value, such as the way that fear inspires fight or flight. So we often in the zoo community, talk about those things as entirely innate, like a button is pressed by the environment. And this autopilot takes over and our brain stop thinking and problem solving, and we just act react react really, as we do when we get goosebumps, or when we get dry mouth, or when we blink when there's debris in our eyes, goosebumps when we're cold. And then the other name that I'm sure you've heard and learned from is Panksepp, who unfortunately, died in 2017. And so he died right at that. I mean, when I say this, I hesitate to reveal this part of my thinking. But I say he, he died at the wrong time as though his death didn't have other more important, you know, problems and sadnesses to go along with it. But the part of his death that is sad of the many things is also that it was right at the time when his work was being challenged by other neuroscientists. And he never really got to be in that discussion, to be able to move that discussion further. So he, very similar to the psychologist, Plutchik. But he was a neuroscientist, said that there were seven basic emotions. And one, one thing to really remember him with admiration for is his coining the term, Affective Neuroscience that there could be a neuroscience of effect. And we're going to talk about what effect is different from emotions in a minute. So he also said there were basic emotions, they were mapped to distinct neural circuits in the brain, in the primitive brain, suggesting that they've been there. You know, people would say, the lizard brain, but those of us training lizards know that that profile, like the bird brain, these profiles are the worst of human misunderstanding about animals learning capacity. And he said, When triggered, we have a stereotypical response, like heart rate, breathing changes, chemicals in the body, particular facial expressions, and particularly particular action. Like we all have the species that have freezers, people often use the explanation that they're the prey species, my freeze might flee. And we have to kind of organize and talk about all of this and I think new ways. So I mapped for us Plutchik from psychology and Panksepp from neurology and neuroscience and see how similar their findings and their ideas are. And that's Plutchik's, emotions wheel on the left, I think there are 82 different names for emotions. When I work with animals and and with children, with with people as well. I'm most comfortable just saying, let's talk about uncomfortable, uncomfortable. And see how just that dichotomy. Does the animal behave comfortably in this condition or uncomfortably and what are the behaviors that we assigned to both of those categories? You know, tail, swishing ears, muscle twitching, body center of position, leaning back, even slightly or leaning forward slightly. In the conditions that they're occurring, given what's going on. Would we say the animal is comfortable or uncomfortable? And I, I invite you to give that a try. Because it is really useful. And it keeps us out of trying to make these murky, sticky

discriminations between Is it fear? Is it anxiety? Is it phobia? It's uncomfortable, and we need to do something about that. And then on the right is Panksepp's neuroscience where he interrupted certain circuits and found that when he interrupted those circuits, he did not see the behaviors we call rage and fear and caring and play. Okay. So, of course, that would lead one to talk about emotions as tangible things, referring to the circuits that he identified are correlated with behavior.



44:41

But there are really two problems with this thinking from my perspective. One I learned from the father of neuroscience I've been learning from his work since I was a graduate student in the 80s. And if you look up his YouTube videos or presentations and talks. It's just phenomenal, what he has discovered about how the brain works. And yet we still cannot point to emotions as a tangible thing. Because it's a concept, not a thing. And he said, early in my training, and I think it's in the bisected brain, but I haven't found it yet. But I think that was the first book I read, that there is a logical error in doing the kind of work that Panksepp did, although he wasn't referring to Panksepp. In particular, that we know, for example, when we turn the light switch down, the light cuts off, we cut the circuit, and we don't see the behavior of light. But when we flip it up, when we repair the circuit, we connect the circuit we see light, and yet, not one of us would miss understand that the source of electricity is in that switch, or in the switch box, we understand that that's just a switch to a circuit, and the power plant is miles away, the source of the electricity is miles away. And that really stuck with me, for so many decades, I've been seeing neuroscience discussions through this lens, did Panksepp find those circuits, and turn the switches on and off, you know, most definitely. But the logical error, that that's where emotion lives, just does not make sense to me from a bigger neuroscience perspective, and this analogy, I think will help us explain that to people. And change the way we talk about it. So when we read on our news feeds, your scientists have found the happiness gene, what they've really found is a gene that when they inhibited, people don't behave happily or report happiness, feelings and thoughts. But it's most likely that it's a combination of complex gene expression and inhibition. And they just found a switch. Now, it's not to minimize that, because if we know that there's a problem with a switch, and we can come in with our CRISPR, genetics, you know, work or our chemical psychotropic drug work, you know, it might be that those are turning back on the switches that need to be turned on. I think a lot of that it is left to be seen. But we can see the effects of a drug without thinking we know exactly what the brain is doing to produce those effects. And I would say, with confidence that really no one knows what the brain is doing. It's that complex. There's a big revolution in neuroscience now, where they're discarding much of the old information, old meaning up as recent as 20 years ago, and really finding new new functions and new structures. I mean, for example, we often talk about the amygdala when we talk about fear. But did you know that there are, excuse me, 16, or 17 different segments within the amygdala, and not all of them, are responsible for processing fear. So I always caution people see if this will resonate with you, including myself, to not use brain explanations for what our animals are doing or feeling. Because I don't know how deeply we would have to study contemporary neuroscience to be able to do that accurately and competently. And I find we don't need it, that our observations of behavior in context is enough to behave with empathy. That is to infer what the animal is experiencing with our own experiences, and have that move us to action that are in on behalf of the animals welfare. And then the other problem and this is science, people are epic, we behave very differently in a science context. Very sharp tooth, lots of red lines. Lisa Feldman Barrett, who wrote my favorite discussion of emotions from a learning perspective, who is herself a neuroscientist, had

Panksepp at her lab for a week and asked repeatedly for his data and he never, he agreed to send it it never did. So that's why I say we're unable to finish the discussion that needs to be had.

 50:15

And then a third one, you're probably too young to remember this, I barely remember this on TV is Paul Ekman, he had a TV show, he was called the human lie detector. But I know that you know, his research, also a psychologist. And he also argued that emotions are universal, as they relate to facial expressions, that we all have the same facial expression, when we are feeling something similar to one another. And when we're thinking, thinking and feeling the two big private events, that we do great work without being able to contact directly. He created this atlas of emotions with more than 10,000 facial expressions, and he gained the reputation as the best human lie detector in the world. Do you remember learning about this in your psych classes? Yeah, he he asked people to write down and I'm going to ask you to do it now. And if you don't have paper and pencil, pick up your phone, because the actual involving more than just thinking but writing it down, I think makes a difference in how we experience a behavior chain. So write down what your inference is being sensitive, caring people, what demand is, is experiencing in each one of these different pictures with different facial expressions go left to right. So I'll give you a minute to write that down.

 52:07
Okay

 52:11

when Lisa Feldman Barrett tried to use these pictures, which she believed would have universal labels from people, she found that she could not get agreement across subjects, respondents. And she tells the story in a really hilarious way, you know, she decided to change her her dissertation topic, because she could not get Ekman's agreement, as he reported. And then after many days, and hours and weeks of anguish, and thinking about what she's going to do for her dissertation, she realized that he did it differently. And this is the thing about research when we find people studying the same thing, but getting different results. The question to ask, first is not which is right and wrong, but what are the different preparations or procedures they used? We need to critically evaluate that, in order to understand why people come up with different outcomes. It's got to be in the procedures because where else would disagreement be? Whether they have different subjects in a way that matters different conditions in a way that matters, different instruments to measure in a way that matters. So when she actually dug in to see what was his procedure, she discovered that he gave multiple choices. So let me move this again. And this time, look, again, left to right. Given these label choices, these construct words psychological concepts, write down what you would infer the man your own your own species, although a different culture. But remember, these are the people who conclude that emotions are universal. Okay, did you change your answer for any of them? I can't see you all. If you want to type into chat. Did you change your answer for any of them?



54:24

Your answers changed Emily. Yeah. Denise good. Carly, Gene Yep.



54:39

Similar answers different words, which, you know, again, is part of the problem of talking about 82 different flavors of emotions. I would be happier to just say comfortable, uncomfortable, comfortable, uncomfortable, and that I find it's enough to move forward. But yeah, great job. First of all being open to the task, because we have such long histories of punishment associated with being wrong, or changing our minds that I want to just praise you for being open about Yeah, well, I changed my mind something that we really want to teach people starting with children at the youngest ages to do comfortably even proudly. So that's really interesting. When we look at the conclusions of any research study, we've got to ask, first of all, we have to be knowledgeable about research critique enough to know that the preparations and the subjects and the measures they use account for the conclusions they found. And whether or not those conclusions generalize outside of those subjects, conditions or measures is a research question in itself. So we want to get away from reading one study, believing it without critique as accurate and saying, I found a study that proves if I could encourage you to never say studies that prove again, it would move you to work toward a more accurate use of research. What research studies do is disprove what they're hypothesizing given those conditions. And because it didn't study all the possibilities, like interpreting these phases without multiple choices, we can only know whether or not what they did was validated. But all the many ways of asking the research question had not been tested. And so we can't generalize without great caution. Can you tell that while I've got you in my clutches, I've got to put as much in there as possible. How many how many sort of adjacent tangents have I had I gone on? I hope it's okay.



57:10

So one of my daughters, I have two daughters in their middle 30s Now one of my daughters, and they're very involved in my work and about behavior of course raised by me, how could they not be? And so she said this to me, I don't know if you've seen this on Instagram, this wonderful Mari Andrew. The shapes of sadness, it's as though to say that I would know what that man is feeling or thinking is this though I could find you on the floor and a crescent shape, and know what you were thinking and feeling. You know, if you're in a ball, then your boyfriend took his the new girlfriend to the place you were gonna go together or you had a bad haircut. If I find you in the starfish shape, money was money woes, lack of purpose, and or the stores out of avocados. I mean, without meaning to be disrespectful, but with meaning to be a really sharp critic of the information that flows our way. Looking at that man's face, especially without those multiple choice restrictions, is not that far from assuming the shape that you're taking tells me a lot about or specifically about what happens in your life that day. Okay, so that gives you a feel for sort of our roots in the discussion of emotions. And the constructional view, which is held by many behavior analysts, I can never say all because we were always disagreeing with each other as well. But we do our disagreements are still within the limits of our basic focus that behavior is a biological endowment learning is a biological endowment, and, and it's the second kind of, of natural selection, behavior of individuals is selected by consequences, that sort of the thing that we would all agree with, that makes us a community of scientists. The constructional view that's also held by several neuroscientists, is that your emotion is your

brains creation of what your body sensations mean, in relation to what's going on around you, and in the world. And that's a quote from Lisa. And again, I hope that you will either follow her trail of her webinars and presentations online, I listen to them in the car more than once to pick it all up or most of it up or read the book. If you're a great reader. I'm not a great reader, so I'm always looking for alternative ways to get in So it's a really good book. It's an I mean, it's an important book for people working in the area of empathy. The good news always when there's learning involved in understanding behavior and feelings and thoughts, is that we can change what people have learned what they do and feel based on giving them different experiences. So when we drop the idea that emotions are tangible things inside of us, and instead think of them as concepts that describe body sensations, given a certain environmental condition dentist or birthday, and then we learn to give it a name. Given that context, when we feel those things, we're able to teach people to change emotions, change conditions, to understand emotions, analyze the conditions, because you're not waking up feeling blue. Just because blue is in your body, and it pops out unrelated to what's going on in your life. When you feel blue, if I asked you what's going on from the environment, what the input is, you might be able to say, this is the week that we've got to go back to work in the office, you know, after six years of working at home, that's my younger daughter, really blue. Or you might say an, you know, an animal that I loved and work with, is having surgery, or all these other examples of environmental events that influence not only what you think, but also what you feel and what you do. This is great news, because it means that I can help an animal, change the emotion of for example, fear through a learning solution. And then I always say, if we need to bring in our science sister from the medical community, or veterinarians to help perhaps with drug therapy, we can do that as well. But we never should do that without having a strong learning program going on as well. So what do we mean by an effect, I find this to be a really useful operationalization that is, specific definition. Affect is made up of two factors, each with two levels. So arousal and such as the readiness to act, or high and low intensity, and valence value, valence, positive or negative. And I would now I'm surprised them still seeing it here would change the horizontal to say valence, positive, negative or positive. Okay. I think that would be better instructional, graphic, plus or minus. So an animal or any of us can fall anywhere on this two factor grid, you can have higher arousal and positive valence. So you're getting your mind excited. You could have low arousal. So less intensity, less readiness to act. And you could have high valence, so you're just thinking about all the really exciting things that are coming, but your body is still and you could have low arousal, positive valence, low arousal and negative valence. And I think when we want to get down to the next level of depth, that this two factor concept of an effect is very useful for us. What is that animal feeling? What am I going to interpret, empathetically? Well, high arousal, negative valence, give it a name, we need to give these things name names, so we might say angry or upset. But whether we use those terms angry or upset, depends on not what's going on inside their body. It's what's going on inside Add the environment which signals to them do that behavior now or behavior chain now. So learning is required to make meaning out of an affect. For humans, we learn what situations and feelings for all animals, what situations and feelings correlate with what emotion words, so we don't know, you know, which species are we talking about when we talk about language? You know, elephants, parrots, dolphins or earthworms, hermit crabs and snakes. You know, we don't we don't know.



1:05:45

If you live in a culture that doesn't, here's the great learning takeaway. If you live in a culture that doesn't do sadness, you don't experience it because your brain becomes wired to whatever mental events exist in your culture, in your learning history. We all have the same

basic body parts, but our brains are changing every with every experience in measurable ways. So when you learn that seeing that snake is danger, then how your brain wires around that emotional experience is different. Not only from culture to culture, but individual to individual. So Feldman Barrett talks about some examples that I have then read more about, for example, tahisians don't feel sad. That is they don't use that word to label whatever that feeling is we label sadness. When somebody passes, they say they feel sick. So do they feel like stomach upset, and lethargic, like you feel when you feel sick? Because they have a different word for it, with different learning associated with those bodily functions? We don't know. I do know I lived in Africa for five years. And then learning the lesutho language and lesutho, they have different words for things like there isn't a distinction between yellow and orange. It's all orange. So how are their brains wired differently for lack of that discrimination? We have lemon, or you know, lemon yellow, and Daffodil yellow and you know, 30 different kinds of yellow. They don't even have that discriminative stimulus in their language. So what did they see? We don't know. Another example is from the Ilonga tribe in the Philippines, they have a word for which on deep research has no translation in our language. And so we ask, do we have that feeling? And apparently the closest feelings or words for feelings we have is, you know, a depth of despair, that is so extraordinarily deep. I mean, we just we have grief. But we don't have this ligat What how does that change our whole system, including our expression of emotions in our behavior. So what she explains for how emotions work, is that our brains feel the sensory changes in our bodies, called interoception. We feel our heart rate go up or down, our bat bladder Fuller, empty our skin have goosebumps or not, you know, some of these we can't perceive. Our brain is aware of them below the thinking level of the brain where the real action happens. And when we interocept we sense these changes in our brain in our bodies, which is the basic ingredient of an affect of emotions are the meaning we give those physical signals and that is, and there is a learned value the valence, so we give different meaning to those bodily sensations, depending on what it's depending on the context in which we feel them. There are some crazy studies about for example, judges giving out harsher sentence sentences Is before their lunch breaks, then after their lunch breaks, so if you go to traffic court, make sure it's after lunch. It turns out that that interoception, that sensation that you are aware of, of churning stomach, and maybe a dry mouth, that's right, Marta, hangry, that perception interoception for some judges, leads them to think of it as, Oh, this guy's guilty, I can feel it in my bones, right. And really, it's hunger. It doesn't make emotions unreal, it just means that they are socially constructed, based on sensations that we're aware of our brain allows us to be aware of like the color red, they become part of our brain, it changes our brain. And it changes when we change cultures. What after living in lesutho, for five years, you know, I was changed, my brain was changed. And the things that made me the way that I labeled some sensations changed as well. So notice that I'm working to put the two together to not separate what your internal events are, your feelings or your emotions, to not separate them from the conditions in which they occur. Because if we separate them, and put them inside the animal, then we will miss all of the observable environmental influencers, over those emotions. And that's our job is to be able to spy those environmental influencers better than any other science sibling, we learning specialists and then make changes to the environment to change those emotions. So again, this great artist identifying the problem. So she's feeling irritable and weird and a little mad, everyone, mostly yourself, is it because of my breakup 18 months ago, is it the patriarchy because I wasn't invited to their wedding because I have a pimple because my dad is dead, because of Trump, the passage of time, money, and then she steps into the air conditioning, and realizes Oh, she has that irritable feeling because she was hot. She was in a hot environment. But we feel these things. And then we start looking for labels, rather than looking in the environment for at least part of the cause, for why we're having those emotions. Great studies on loneliness, first of all the definition, it's not about how many social interactions Hang on one second.



1:13:22

Trying to clear the frog in my throat while I'm on mute. Loneliness is about the perceived discrepancy between one's desired level of social connection and their actual level. And so some people who are socially isolated, don't feel lonely, I was really comfortable during COVID, I'll share that with you, I got a lot done. And some people are lonely, even when they're surrounded by people, which is something I've definitely felt, you know, I'm the person who kind of migrates to the corner in the party. The bodies of people who feel lonely, who feel the emotion we call lonely, are more likely to have blood pressure problems, cardio problems, reduced immunity, inflammation, or sleep. And there are programs that have had great effects like the door knock or the great get together to change that feeling because of changing the environment.



1:14:28

Even our voices and this could be related to our work with animals as well. Our emotions are affecting our speech parameters. So when you're feeling angry, look at how your speech changes. These are the overt behaviors of your internal feelings. And that's what we're looking for. Because we will not be able to validate each other's feelings because those are private to the individual Happiness, sadness. There's something very poignant to me about this research, that if I'm a good enough observer, I can hear in your speech, what you're feeling, I don't have to guess I can make a really solid inference. And I ran a help desk at the university for years. And we did come to say that the window to the soul is not the eyes, it's the voice. Because we did all of our work on the phone, we became very sensitive to those changes in speech parameters. So if I asked you write down what this animal is feeling, use your empathy based on what you see. But then I added information from the environment you would change your answer.



1:16:10

So we've got to talk about emotions in context. Because nothing is in a vacuum that relates to how we behave, feel, or think this is the way Earth has evolved is that the animal life and plant life I have incredible studies on plant behavior learning. Look up Gagliano, and I'll resist talking about it because I'm running out of time. But learning defined as behavior change due to experience contact with the environment, contact with the environment will always have some explanatory value for understanding why an individual behaves as they do, including the emotional behavior we can see. And the inference about what they're feeling or thinking, context conditions environment. But that's not one of the science sisters at the table given our cultural learning. So it's taken, you know, 80 years, from Pavlov to Skinner and the hundreds of other researchers up to today to finally get on the at the table. So instead of asking, where in the brain emotions can be found, or what bodily patterns to find them, like the man's faces, we should ask, this is Lisa Feldman Barrett Barrett's research question, what does the brain How does the brain construct these experiences, we have a biological state that is interocepted in conditions that are perceived. And then our past experience, which is right up the behavior analysts alley past experience explains, in part behavior of an animal today, past experience is used by the brain to make a prediction, oh, last time you had these body feelings. In this setting, this is what happened. The brain serves up that ABC, that antecedent behavior,

consequence, experience, and then current outcomes, whether you get punished again, or you get reinforced instead, current outcomes confirm or disconfirm that prediction. And that is exactly what behavior analysis the science of learning of behavior changes tracking how current outcomes given past experience and genetic tendencies explain what an animal's gonna do. So you may have heard a Jalayng behavior analysts too, was mentored by Israel gold diamond, who was one of Skinner students, you know, everybody's lineages that explains their beliefs about behavior in the world. But he's, he's done a lot in clarifying, understanding emotions, and therefore what we can do to help others with them. He says that there's a use there's use in discriminating between emotional behavior like the girl's scrunched face and crying and emotional feelings that only the individual can report on. And emotional behavior is an operant it is shaped by consequences. So she learned to make that face you can tell because she's making it like sort of on demand, you know, given the demands of the environment, and whining, I've seen this with my grandson too. He's got a particular cry. You know, and then the arms come out and we all pick them up and hold them close. We love it, we give we give meaning to that. But we're also aware that it's very different emotional experience than when he's fallen down and hurt himself. So Skinner wrote that emotions are private events, that they're not behavior exactly, but rather they're part of behavior that should be accounted for with a natural science of behavior, skin is no barrier. So what they mean by that is that emotions are not separate from the contingency, the cue behavior and consequence, the ABCs that you're experiencing, that you're in. The word contingency can be a hard one to really become fluent in, but it's enough to think of it as strictly the dependency between the antecedent Q, the behavior, and the consequence and future behavior. By contingency we mean the dependency among A and C and the B in between, they are a is contingent, sorry, B is contingent on the Q, a, unlike reinforcer is contingent on the B. So they're dependent on each other. And they're the smallest meaningful unit of analysis. When we talk about behavior without the context A and C, we cannot understand what's going on. And we lose our power to change a and c to change B, which is what we do when we care for animals, and each other. Here's the hard part of what these researchers are saying. But it ends up being very empowering to help that emotions are not separate from behavior, or they're not separate from these ABC experiences. Emotions are infused in the ABC, they are tracking the ABC. They are part of the behavior, contingency. They are indicators or descriptors of these consequential contingencies of signals and behavior that then get selected or deselected with consequences. I know it's a mouthful, so pick up what's useful of use to you and let go what's too much. And you'll pick it up in layers just like I did. So if we look at this lioness, who the keepers asked Steve Martin of natural encounters was consulting there years ago, to help with this emotional behavior that they said was eclipsing our learning ability, which of course never happens, or our, our brain is always watching for A and C around any B, to be able to inform what to do in the same context. Next time. What he did was he put a piece of meat, and this was many years ago, he might do it differently now. So we'll acknowledge that put a piece of meat on a target stick. And the minute she oriented towards the target stick regardless of what that emotional behavior was, he clicked and fed the meat.



1:23:49

Three days later, this is what she was doing. So her control over the meat. And this is a bigger conversation, her control over the meat with her behavior, which is what behavior has evolved for for controlling our reinforcers. Her power to control the meat by coming forward, abolished all of the high intensity, negative valence reduce that negative effect. And it was replaced with calm, knowing what to do it being within her capability to do it. So it's an example that I use, only to say, first of all, we need much better enclosures that's beside the point. The point I'm

making right now is that emotions are tracking contingencies. She wasn't high highly aroused with negative affect for no reason. A man with a stick and meat dangling from it was coming too close a man without the stick coming too close would have both elicited the reflexes involved and and evoked the operant behavior involved, to escape him to push him back. But that emotion that was infused in the ABC of demand coming close changes, when she knows what to do, and can get the meat with her behavior when she can be effective, which is what behaviors evolved to do be effective living in our environments. And now the emotion that was infused in the new ABC, target is present as a cue, come forward, come forward towards the target, get the meat, what was infused in that ABC was calm, into calm arousal, and a more positive effect. So emotions are not from this school of thought, are not separate from the contingency we're experiencing at the moment. And we as being able to change the A and the C of an animal's environment, most often can then change the emotion that is tracking that ABC, they go together. It's another way of saying environment and emotions work together, not in isolation. So let me skip this. I just want to give you this a really influential Skinner quote in my career, he said in 53. So so long, we've waited for this to come to the top to help behaving organisms. He said, It does not help in the solution of practical problems to be told that a feature of an individual's behavior is due to frustration or anxiety, that alone is not enough. We also need to be told how the frustration or anxiety has been induced, and what we can do to alter it. So he never denied emotions or thinking that was like the Reader's Digest nightmare press version of his work. He was an extremely empathetic person, I actually got to meet him and know him, he was on the board of directors for the residential treatment center. Thanks for the five minutes. And this is an example of what I think are our marching orders, we can observe behavior, we can give it a name, and describe the context in which it occurs. And then our job is to figure out what is the context that induced it. So what about animals? Well, which animals are we talking about? We get a lot of job done a lot of good work done with watching behavior in context. Here's an example of what frustration looks like. I don't know what this frog is feeling. But I do see emotional behavior, I see an effect on those two factors.



1:28:24

Okay, is it enough for me to help that frog and the person without knowing what they're thinking and feeling? I think it is. When we look at animal behavior, desk reference by Barrows, notice, there are 20 different types of aggression. But when you look through those different labels, I think you'll see that the behavior of aggression for a particular species may be the same from one individual to the next, what they're labeling here without I think really realizing it is not the behavior of aggression. It's the context in which the aggression is occurring. And that's giving the different names. So to change emotions, change conditions, we can do happy and we bring this on board. It's empowering. Okay, questions. Sorry for this frog. It's the end of the call that so many of us have had.



Emily Bernhardt (Woodland Park Zoo) 1:29:29

No worries. Thank you so much for presenting. I



1:29:36

did have a quote quickly too.

E

Emily Bernhardt (Woodland Park Zoo) 1:29:41

There was a question in the chat earlier from Sarah Brinker. I'm not sure if it was answered for you, Sarah. So I'm going to ask it again in case other folks in the room heard as well. But when you had the slide up, Susan with the four faces and we were assigning the emotions to the faces, Sara asked, wouldn't it be there if you guess what directly on the emotions to the faces, that it would be evidence that emotions are not culturally specific.



1:30:07

I don't know whether you if that's a great question because it causes me to ponder. Is there even a correctly? Like if we ask the man, what are you feeling? And what are the conditions that are related to you feeling that way? We would be empathic for that man, given his expression in his context. But for me it for example, I know for you to Sarah, that you can cry when you're angry. You can laugh when you're angry. You can stomp your feet. When you're angry, you can close your eyes. You can stare at someone when you're angry. What does it mean to say an emotion of anger? It isn't one thing, it isn't one face. It's many different behaviors. And I think that demonstrates that it isn't one universal thing. It's many things. And some of them will be common to our cultures. And some of them won't be. For example, really quickly, when I worked in special ed, my original job. We were taught very carefully, that many different Native American children are taught not to look with direct eye contact to an elder, without knowing that we might call that child withdrawn, lacking social skills needing special ed. Instead, what we learned is not giving eye contact is part of their cultural norm of the group to which that child belong. But in my culture, not giving eye contact for a child to an elder is a rudeness. So I don't I think there are commonalities, but how far do we need that to go? Before it's no longer useful before it obscures our observation of the individual's expressions? In the context, the individual is expressing them? Any other quick last minute questions? Yeah, we

E

Emily Bernhardt (Woodland Park Zoo) 1:32:20

have one that came in from Tut at the grizzly and Wolf Discovery Center. He says, I'm interested in thoughts or advice on how to communicate this idea to visitors. observing animals, for example, perceived loneliness in an animal like a wolf. Loneliness can be bad for the animal's health. And we have a responsibility to try and observe that. But our assumptions about loneliness are defined by our own experience with loneliness, which may not be the same as the individual animals experience. And there's a follow up to that it's as simple techniques for in a constructive way up ending the expectations of the visitors. So they're open to a unique situation.



1:32:55

Yeah, so.



1:33:03

Yeah, I see what you're saying. So. So are you saying like a lone wolf might evoke people's assumption of a poor Wolf is lonely, right.



1:33:19

So in our situation, you know, we have wolves are very social animals. And they're all social and individual ways. And so we have always got this challenge of managing the relationships of wolves. And that comes from watching them interact with each other and trying to make our best guess about their relationships. And we have to be careful, because wolves can be dangerous to other wolves. That's, you know, we don't want to put them in a situation where they will, but we just have to acknowledge that sometimes those relationships can be, you know, can involve these changes that can be dangerous. So, so we might recognize that at a particular point in wolf's life, it seems to be doing better, only with one other Wolf. And some people might see that and say, Hey, shouldn't a pack be bigger than that? Or we've actually had periods where wolves seem to be more comfortable having their own space, and very consistently, visitors react reliably to seeing that and thinking, This animal is lonely. This animal is sad, it's by itself. So that's the context of how I got



1:34:32

it. And I've been privileged to work at Wolf Park many times and interact with those wolves. It's, it's a, it's an incredible job that you're doing. So I think the first thing I would say is I would find what they did well, what they did good. And I'd say, you know, that's an interesting question, and I admire that you notice that the wolf is alone. So you're noticing the animal in its environment. And that, that gives meaning to you. So keep that up, because that's part of what we want to do when we're around animals is look at their environments and, and and to consider what they might be feeling. Tell me, what about the wolf behavior? Would you say makes you think lonely, rather than or uncomfortable rather than comfortable? And they might say, oh, you know, he's on his side, and he's just loving and relaxed, or something like that. You might say, given what you've already learned coming to our center, what might an upset or uncomfortable wolf looks like? What are the behaviors we would expect to see? And so I would probably go down that direction, I wouldn't go down the rabbit hole like we went to together today. But I try and have people describe what they see, in terms of small behavioral responses, which we're not good at culturally, we don't learn to do that. And then to tie it to the environment. And then I might, I might work the human angle is telling some of the times when you prepare for to be in a room by yourself, you know, and if I were to walk by what I call you lonely, or would I say she's, um, they are taking a minute to just enjoy their own thoughts or their own, you know, so yeah, from that approach, but you know, very delicately picking out what it is that they that is an approximation towards what we want, which is that they're observing. And they're drawing conclusions. Yeah. I don't know if that helps, but that sort of thing. Okay. said it. I know we ran out of time.



Emily Bernhardt (Woodland Park Zoo) 1:36:46

Yeah, unfortunately, we are out of time. But this was a wonderful talk. Thank you so much for taking the time out of your day. And coming and sharing all this knowledge with us to share the PDF of the slides. That would be great. I'd love to send it out to folks who



1:37:02

I have not sent it to, you know, I don't have it yet. I will do it right now.



Emily Bernhardt (Woodland Park Zoo) 1:37:06

Perfect. Thank you so much, Susan.



1:37:09

Thank you. Yeah, thank you. Thank you for the work that you're doing and the exploration that you're doing. And I hope we meet again. Awesome.



Emily Bernhardt (Woodland Park Zoo) 1:37:19

Well, thank you. Thank you, Susan. All right, folks, we're gonna go ahead and transition into our break. So we'll come back at 45 minutes after the hour. And I will see you then, for our unconference session. So we'll come back at 1045 Pacific time. So in five minutes,



Meagan Ashton (Seattle Aquarium) 1:37:42

I repeat myself a little bit for any new folks that we have today. If you're not familiar with an unconference session, or if it's been a while since you participated in one, that's okay. It's really just a chance for some participant led discussion. And unconference session recognizes that often the best parts of the conference happen in those unscheduled moments where you have impromptu conversations with your fellow participants in the hallway or during your break time. And you really get to dig into the topics that resonated the most with you or that had been on your mind from your own work. And then an unconference session, you have specific time and space set aside during the actual conference program to talk about those topics that are top of mind. And those discussions are led by you. So step number one is to brainstorm topic ideas that you might want to lead a discussion on. And if you decide to pitch a topic, that doesn't mean that you have to be an expert on the subject, you're not giving a presentation, it just means that you're committing to be in the breakout room, and maybe give a brief explanation of why you brought up the topic, and then help facilitate discussion in the room so that everyone has a chance to participate. So we're going to give you seven minutes to brainstorm topic ideas. And in that time, in addition to identifying a topic, you'll also need to come up with a really short title. And that's going to be the name of the breakout room and a brief description so people know what the topic really is. And you'll enter that in the Miro Board link that Sarah put in the chat. And that'll give everyone a list of topics to look at when they're deciding which breakout room to join. And I saw that there are already a couple of topics in there from after the introduction yesterday. So thank you to those of you who got the ball rolling. Those look really interesting. And if you're brainstorming and nothing is coming to mind, that's also okay, not everyone needs to pitch a topic. We need people to actually join the breakout rooms also. So I that's totally fine. So we're gonna give you seven minutes and then we'll come back together and we'll talk about step two

E

Emily Bernhardt (Woodland Park Zoo) 1:40:11

awesome. I will set that timer for seven minutes and I'll play some of that music as well. I don't know, but I need background to help me think so. I will call us back after seven minutes.

M

Meagan Ashton (Seattle Aquarium) 1:47:42

All right, we're gonna bring everyone back, I saw some activity in there. Thanks so much, I see lots of options. Looks great. And that takes us right into step number two. So the second step is very simple. It's just to go click that link for the miro, if you haven't done it already, and read through the topic options and descriptions, and decide which room that you would like to join. And if you can, please try and use the emoji feature or use some sort of marker to mark the sticky of the topic that you plan to attend. And that can give the facilitators and our advancing empathy staff, just an idea of how many people to expect in each room. So before I give you a few minutes to do that, I also want to talk about just some guiding principles as we're heading into these rooms. I know on the slide, it says rules. But these are just principles to help us have the best possible session that we can have to make this successful. So the first one on there is that whoever shows up, those are the right people. Maybe that's three people, maybe it's 20 people, but whoever's there, like those are the right people to have this conversation at this time. The second is that whatever happens is the only thing that could have happened. And this helps us try and let go of any expectations we have for what the session will be like. But there's really a conversation that can only be had by the people who come to that room. And that's what we'll be experiencing today. Third, is that whenever it starts, that's the right time. So you might wait a few minutes for people to get into the room. Maybe you do introductions first. I would encourage that, especially if you have a small group. But even if it takes five or 10 minutes to get going, that's totally fine. Number four is that if the session that you attend isn't feeling you're filling your needs, then you can leave. I mean, often we get caught up in a feeling that leaving a session will be rude to the other participants or to the facilitator. But really, I think we can let go of that if there's another session that you were also in interested in and you want to see what's going on in that room, feel free to leave the room you're in, no questions asked no hard feelings. And then the last one is that it's over when it's over. So if you're talking, and it only takes 15 minutes, and there's really nothing left to say, that's okay. You had the conversation that you were there to have. And you can go check out another breakout room, you can take a break, whatever you want to do, maybe you're talking right up to that very last possible minute. And that's great, too. So now we'll give you three minutes, check out the topics, put your emoji on there. And this also gives our staff a chance to build out those breakout rooms. And then we'll get started.

E

Emily Bernhardt (Woodland Park Zoo) 1:50:43

All right, I'm setting a three minute timer now. Oh, there we go. Okay. All right, everybody. Um, I have made the rooms based on the stickies that are in that board. And I'm going to open that in just a moment. I did see some folks putting emojis on that first sticky note that Megan popped in as an example, I just want to say that that is an example room, that's not actually going to be one of the breakout rooms that is hosted. So if you did put your sticky note or like your little emoji next to that one, if you would like to facilitate a conversation about that topic, you can pop it in right now to the board, and I can make a room for it. But that was in there to

serve and as an example of what the like layout on that mural board would look like. But otherwise, I have these rooms open and populated and you'll be able or open not populated, you'll be able to self select what room you would like to go into facility. If you put a thing in the mural board, I put your name next to the name like the title of that room. And so if you popped on in the board, like for example, Theo popped on in there. So Theo, please go to the room that you popped in there and not somebody else's room as an example. All right, everyone will be in the rooms for about 35 ish minutes to have some conversations. If for any reason you're having an issue joining the rooms, please let me know. And I can manually move you into a room once they are opened. But you should all see the option to join the rooms now. And we'll be in those for just over 30 minutes. That we do have adequate time to take a break if we need to after some of those conversations, some might have been a little bit heavier than others. So just give us some time to kind of recoup your brain space a little bit before we move on to the next interactive part of our day. So I have 35 minutes after the hour right now, let's go ahead and take a 10 minute break. So we'll come back at 45 After the hour for wherever you are. And then we'll move into our final session of the day. So I will see you all in about 10 minutes. And I'll pop that in the chat as well, for anybody who may be away from their computers. But see you soon. Ducks are now in a row. Awesome. All right, welcome back from the break, everybody. Hope you all feel a little bit rejuvenated after those conversations, before we dive into the next ones. And I apologize, my screen is over here. But my camera is down here. So not exactly looking at you as I read things I apologize. Um, so this next session is going to be our planning for the future session. And it's going to be another collaborative kind of discussion focused part of our agenda before we close today. So the goal of this session is to do some collaborative brainstorming with all of you about the direction and the work that you all would like us to take priority for the next three years at the network granting program and empathy evaluations. Like I said at the start of this meeting, we're in the process of writing our next grant proposal to continue this work. And so the conversations and stuff we hear in these conversations that are a real possibility that can make it into the grant report, as some of these are proposals or some of the priorities that we're allocating to work on in the next three years. So after I do these instructions, you'll have the opportunity to select a breakout room that you would like to attend. If you want to attend more than one, you're welcome to pop into one for a little bit and then leave and then come back to the main session and go to another one, that's totally fine. I will be facilitating the network room, Marta and Sydney will be in the grants room and Theo will be in the evaluation room. Each room is going to have this kind of collaborative mural board that we'll be using to track our thoughts. And Sarah has dropped the links to those in the chat. So we're hoping that this is going to give folks a chance to not only shape the future direction of these three avenues, but also provide folks the opportunity to find other individuals and organizations that have similar interests and needs some. So we're going to be in these rooms for about 20 minutes. So we'll be coming back between getting my math right, like electoral Yeah, 1215. And like I said, I'm going to be in the network room. So if you want to chat with me, we'll be chatting about what the future of the network experience can be. So your experience being a part of this attending events, being somebody who's in this professional network? What do you want the future about experience for yourself, and new folks to be like, Sydney and Marta are going to be in the building capacity to foster empathy for wildlife granting program room discussing what the future of that grant program can look like. And then Theo is going to be an evaluation room to generate some ideas for collaborative evaluation efforts. After our 20 minutes in the rooms, we'll come back into the main space and kind of do some cross pollination, and share some key takeaways from the discussions from each room. And I think that's, that's the last instruction slide for adults. So Sarah should have created some breakout rooms. And those are open right now. So I will be in the network room. It will be an evaluation in Sydney and Marta will be in grants. So I will see all your network folks in a little bit. That way worth. So thank you all, who attended that room and contributed your

ideas, and thoughts to our conversation. If there's anything else that we didn't get to, please let me know, either who is like a zoom DM or empathy@zoo.org, by auto share out some of the big things that we talked about. And then I'll pass it off to anybody who's in the other rooms to share out before we close, but we focused on the majority of our conversation on aspects of the network that people think can be improved or aspects that they think may be missing. And so some of the things that we identified is there's still this discussion board exists. And that's great that it exists. But we still need to be able to drive some attention and direction and engagement on the discussion board and identify kind of the barriers to engagement with that resource. And how we can make just joining the network, whether you're a new affiliate or a new number, less overwhelming. There's a lot of stuff that you get when you're kind of on boarded. And just making sure that those processes are a bit more robust, a bit more kind of intuitive. And on my phones, they were a little bit less. Just like kind of thrown into it and like oh my gosh, what do I do? And some of the things that we thought about maybe for adding or some kind of cohorts or like empathy, mentorship ideas for people who are newer to empathy work or newer to the network and what those could look like formal connections with AZA, so like a kind of network to network collaboration, and maybe a social media presence as well. Marta, Sydney, or would you want to share what happened in your rooms?

M

Marta Burnet 1:59:09

Sure, Sydney, and I didn't decide who was gonna talk. So I will throw a few things in here. In the grant session, we talked a little bit about the structure of the presentations and the possibility of maybe grouping them together, since they do kind of come out like a bunch of them right at the same time, and it's hard to be able to see them all and they're tremendous amount of resources that come out of those but maybe underutilized in people watching those are learning about those. So that was something also interestingly, kind of cohort idea about like maybe as grantees. So a way to bring them together when the grants are starting so that they know who's working on the same thing. We tried to do some of that, but to have a more direct conversation so that if there are two that are working on signs or play spaces that they know to connect from the beginning, rather than maybe like, by the time they're sharing out their results, also talked about possibly having people share out about their projects a couple of years after they've finished, now that we will have a few rounds completed of like, yeah, looking back on our the grant that we had two years ago, how, how is it working? Now? What are the things that now we wish we had known when we started that, or things that have emerged, you know, pleasant surprises that have emerged from it? So just being able to continue that learning? Not enough, Sydney, if you had anything else?

S

Sydney Dratel 2:00:48

I don't think so. I think those were the the main things. Yeah. And people like that a couple things people liked, were those tier one, the longer timeframe grants, the the support of staff time through the grant program, things like that will definitely continue on in the future of the grant program.

E

Emily Bernhardt (Woodland Park Zoo) 2:01:18

Theo, anything you want to share from the evaluation,



2:01:20

we had a pretty wide ranging conversation on evaluation for a brief time, obviously, there's a lot to discuss there. Some of the things that we talked about were the different approaches that folks have taken to measuring empathy. And I think looking forward, in particular at the link between empathy, ability practices and different approaches to empathy for animals in presentations in particular, and conservation behavior, both conservation behavior intent and actual behavior change, which is always a hot topic.



Emily Bernhardt (Woodland Park Zoo) 2:02:10

Awesome, well, thank you everybody, for not only attending the rooms and being willing to kind of be a part of this conversation. But being a part of those conversations and feel like you can candidly share that kind of information with us. So I know from the network Conversations, I'm really excited to kind of parse these apart a little bit more both with myself, and then with relevant committees and kind of see what what steps we can take to better that experience that you have in this group for both of you if you run out or folks in the future. But if you have any more things that you want to contribute, that maybe you didn't get a chance to do in those breakout rooms, feel free to email me at empathy at empathy@zoo.org And we can always pass those off to the relevant folks. But I'm gonna go ahead and resume sharing my screen for MARTA to close this out.



Marta Burnet 2:03:06

Great. Well, thank you, everybody, echoing just what Emily said, there's a lot of great ideas. It's always wonderful to have your insights to help us to make the network and the grants program as strong as they can be. And we will definitely keep those in mind as we work on our next grant proposal. And now, I can't believe it's already over, it's time to close this out for the day. Thanks for spending the last few days with us. I hope you found it helpful. I'd like to thank Emily, Laurel and Sarah who worked so tirelessly to prepare such a wonderful event, give you a little round of applause. We're going to be sending out a survey and the list of resources and contact information for attendees shortly. We really encourage you to make use of those. You know, if there's somebody you talk to and in one of these breakout sessions and you want to follow up with them, everybody said indicated that they were willing to have that information shared. So please don't hesitate to reach out to them. Or to us with any questions or suggestions of people to talk to whatever you need. And I always enjoy spending time with all of you and feeling the excitement of possibilities that come from, from gathering really just such a group of passionate people together. Just as Susan said, I think if Sarah can put the link to the Padlet in the chat. This is a place where you can share one thing you plan to do with what you've learned over the last two days. I know when you get back to your busy days and the backlog of having been here. The enthusiasm from this event may wane. So I encourage you to take one final moment now to write down something you hope to accomplish. In the next month or so, and, you know, research shows that writing down your goals helps you to actually follow through on them. So don't miss this chance. And it can be something small just like following up with one person you've talked to today, looking over resources from one of the presenters and sharing it with a co worker. And if you aren't sure where to go next, we encourage you to look at the the self assessment rubric that we shared last fall, and that'll go

into the chat here as well. Maybe it's something that you can revisit or work with your colleagues to think about what's an area at your organization that you'd like to be working on in terms of advancing your empathy work. The journey of 1000 miles begins with that first step. So that can be a good tool to help you figure out what that stuff can be. And then I would like to also say thank you and farewell to Sydney, the empathy grant specialist that many of you have worked with over the past three years. Sydney, you've been a critical member of the team and we are so sorry to see you go but of course we wish you the best. So also would like to if you have any comments you'd like to share with her, feel free to put them into the chat. And thanks, everyone for coming and take care and we hope to see you soon at an upcoming event. Bye bye