

# Connecting Welfare, Perceptions, and Empathy

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WOODLAND PARK ZOO SAVES WILDLIFE AND  
INSPIRES EVERYONE TO MAKE CONSERVATION  
A PRIORITY IN THEIR LIVES.

ZOO.ORG

# What is animal welfare?

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# WHAT IS THIS THING CALLED ANIMAL WELFARE?

# Animal Welfare

What is it?

Two interrelated components:

1) Physical health



Absence of diseases or physical/physiological conditions.

# Animal Welfare

What is it?

Two interrelated components:

1) Physical health

2) Psychological well-being:

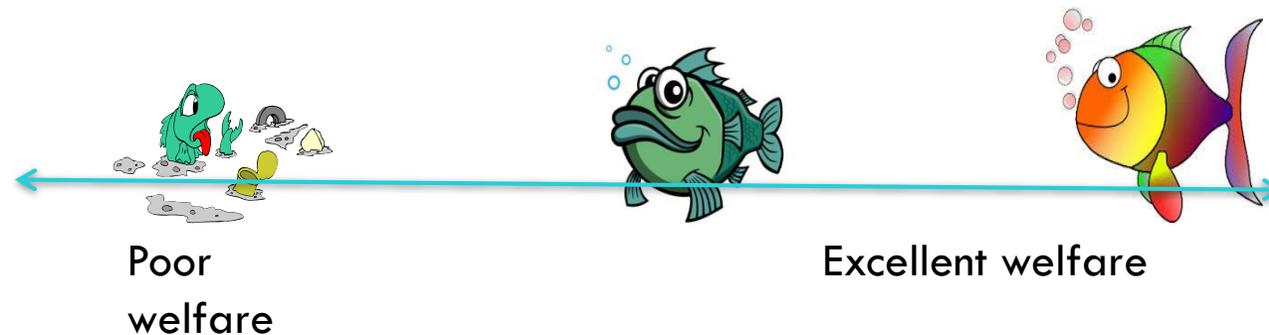
...dependent on the opportunity for animals to perform strongly motivated, species-appropriate behaviors (esp. in response to aversive stimuli).



# ANIMAL WELFARE

## WHAT IS IT?

An animal's collective physical, mental, and emotional states over a period of time, measured on a continuum from poor to excellent (AZA Animal Welfare Committee, 2015).



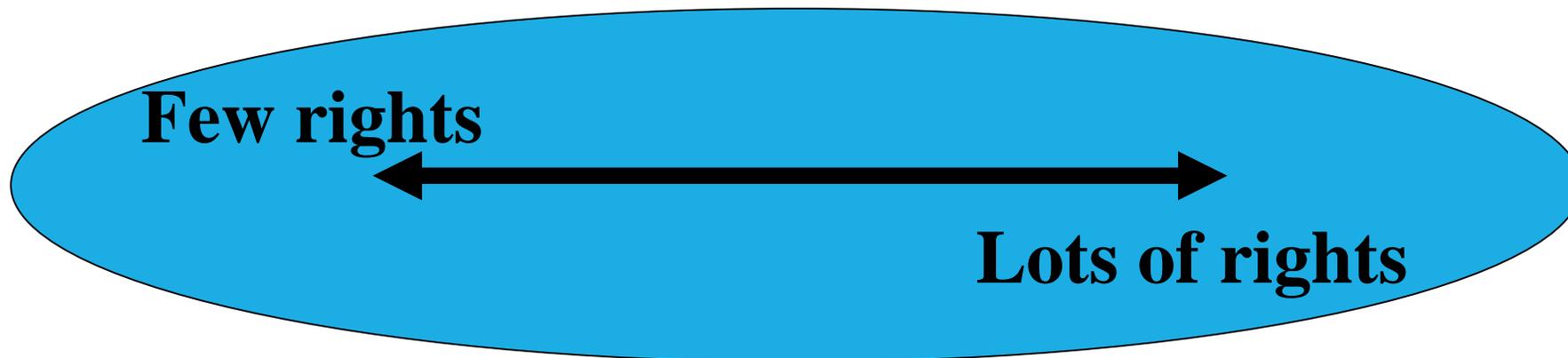


How does 'animal rights' differ from 'animal welfare'?

# Animal Rights: What is it?

The idea that (sentient) animals should have the same moral rights as humans

- A philosophical belief system
- Based on ethical concerns for animals



# HISTORY OF ANIMAL WELFARE



Farm/food animals

Laboratories

Companion animals

Zoos/aquariums



# The 5 Freedoms

Brambell, 1965

- Freedom from hunger and thirst
- Freedom from discomfort
- Freedom from pain, injury, & disease
- Freedom from fear & distress
- Freedom to express normal behavior

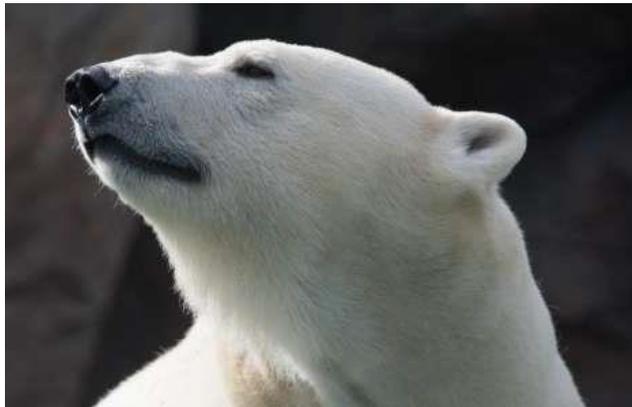


How applicable to zoo & aquarium animals?

# THESE WERE COMBINED TO CREATED AZA ANIMAL WELFARE FRAMEWORK

## Five Domains (WAZA)

1. Nutrition
2. Environment
3. Physical health
4. Behavior
5. Mental domain



## Five Opportunities to Thrive (Vicino & Miller)

1. Opportunity for a well-balanced diet
2. Opportunity to self-maintain - including shelter and species specific substrates
3. Opportunity for optimal health
4. Opportunity to express species-specific behavior
5. Opportunities for choice and control.



## Assessing Animal Welfare

Based in science

- There is **no single measure** of welfare—we need to look at ***multiple variables*** to assess welfare.
- Animal welfare historically has been **assessed at the individual animal level**. New techniques are being developed for group assessments.

# STRESS AND ANIMAL WELFARE

- Stress is any stimulus that threatens or appears to threaten the homeostasis of an individual.
- Stimuli can be perceived as positive or negative but the body's physiological response is the same.
- Fight or flight.
- Acute stress versus chronic stress.

# INPUTS AND OUTPUTS

Inputs are resource-based

Exhibit design

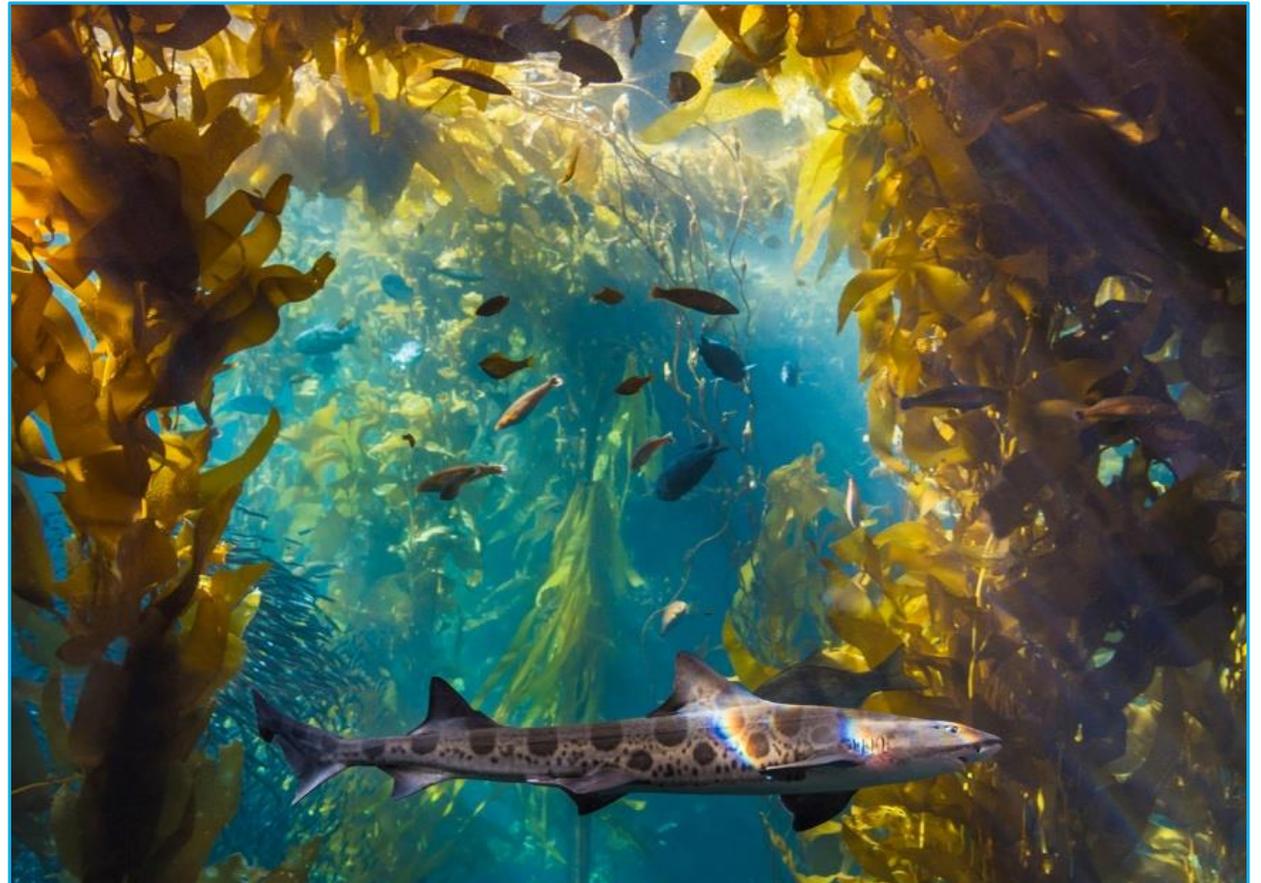
Lighting

Diet, Feeding schedule

Enrichment & Training

Natural history

Individual history



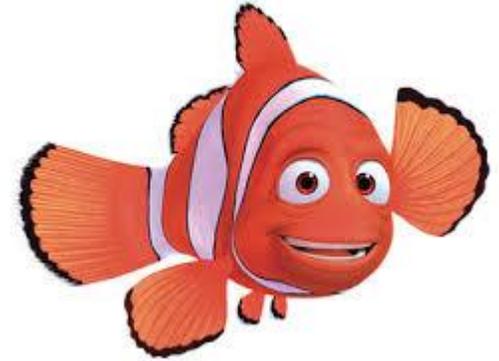
# OUTPUTS

## **Outputs are animal-based**

### Welfare indicator measurements

- Physical: Growth rate, coat, feather, scale condition, weight, BCS
  - Physiological: Immune, adrenal function
  - Behavior: Play, exploration, stereotypy
  - Psychological: Preference testing, cognitive bias.
- 
- Monitor both positive and negative indicators of welfare

# WHAT'S ANTHROPOMORPHISM?



# ANTHROPOMORPHISM

the attribution of human characteristics or behavior to an animal

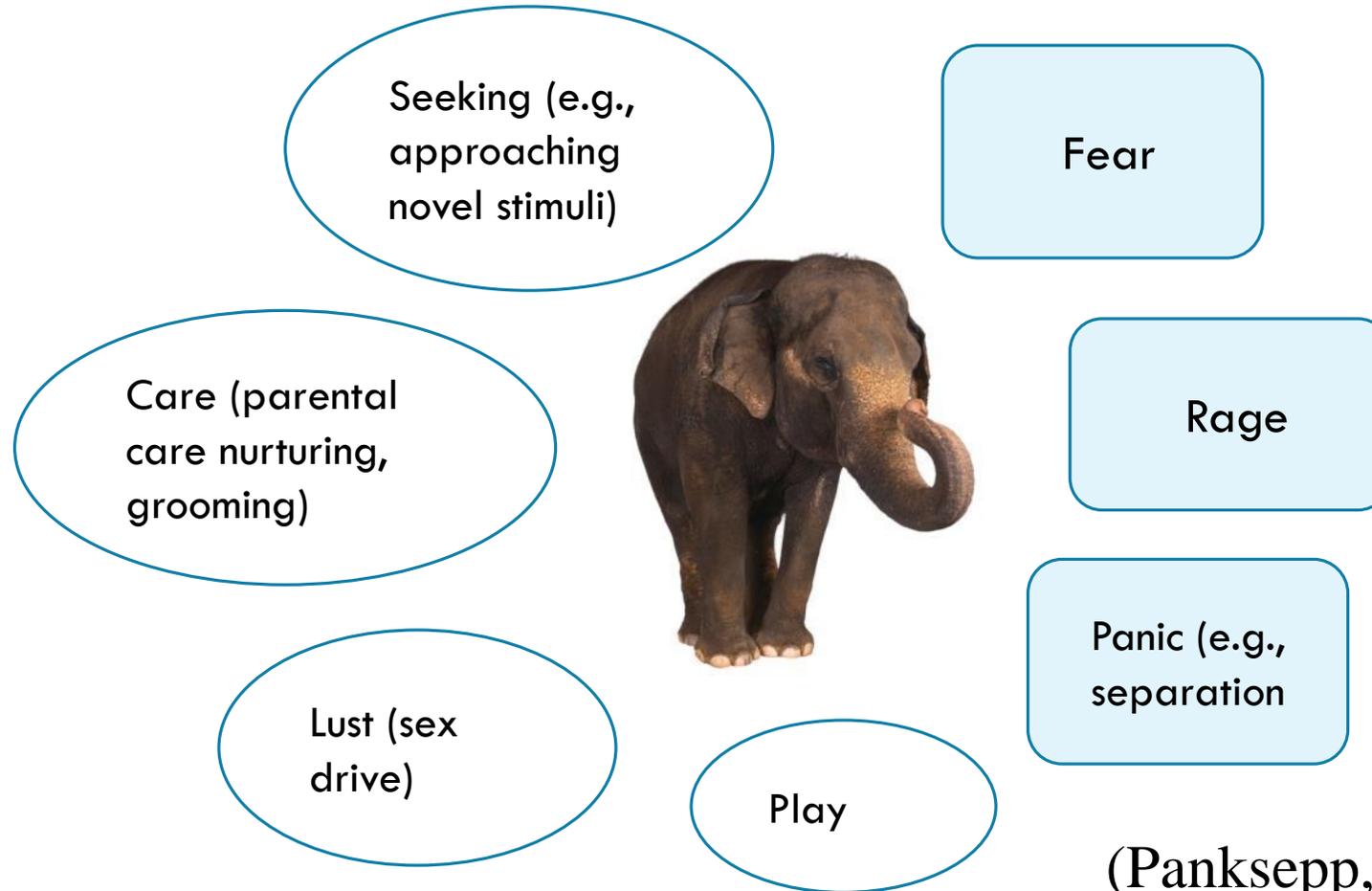


“Happy as a clam”



Is this animal “happy”?

# THE NEUROSCIENCE OF ANIMAL WELFARE: 7 BASIC EMOTIONAL SYSTEMS



(Panksepp, 2011)

# IN THE PAST 10 YEARS:

Social media has facilitated...

- Instantaneous and global awareness.
- More transparency and focus on animal welfare.





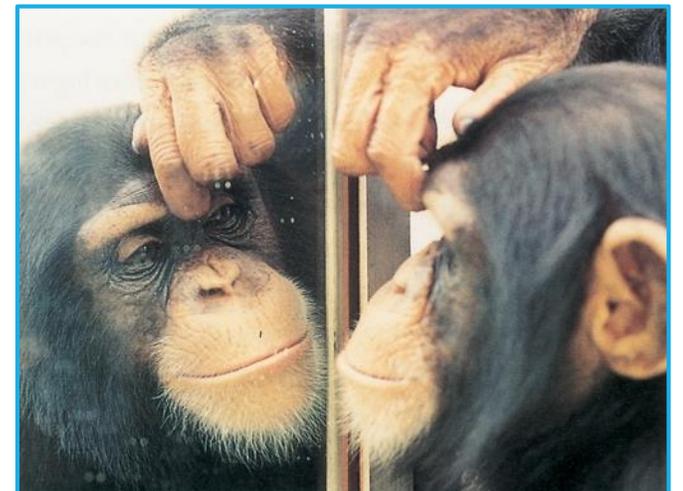
## IN THE PAST 10 YEARS:

- 8,500 scientific papers in 500 journals.
- Proliferation of scientific studies.

Neural basis for 7 emotions in mammals

- fear, rage, panic, lust, seeking, care, play.

Scientists declared that animals have conscious awareness.



## IN THE PAST 10 YEARS:



Pet owners see dogs or cats as members of the family.

Animal law the fastest growing discipline in North American law schools.



- Concept of "nonhuman personhood" has gained traction.

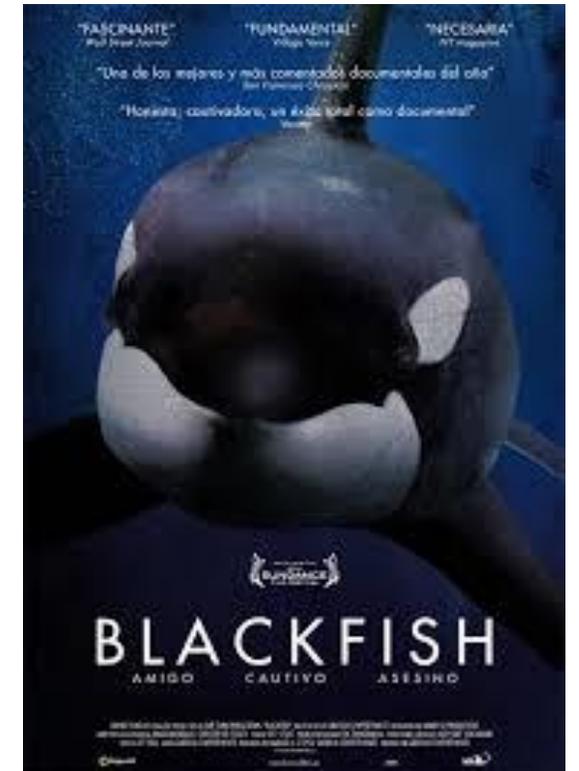
# IN THE PAST 10 YEARS:

- Increased media attention on animal issues.

Animal protection organizations have developed increasingly sophisticated strategies and tactics.

High-profile animal issues gained public attention

- SeaWorld
- Harambe, the gorilla
- Ringling Brothers
- Cecil, the lion
- Copenhagen Zoo giraffe.



# IN THE PAST 10 YEARS:

Laws prohibit certain species and/or breeding.

Conservation mission does not resonate with all. Many focus first on the welfare of the individual animals.

Increasing expectation that animal habitats should be large, naturalistic, and "clean."



## IN THE PAST 10 YEARS:

Centers for study of zoo animal welfare:  
Brookfield Zoo, Detroit Zoo, San Francisco Zoo.

WAZA developed an animal welfare strategy.

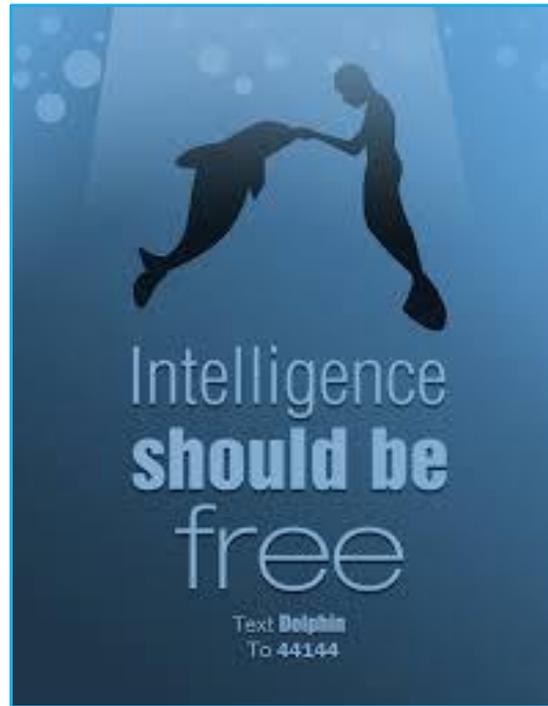
Regional zoo and aquarium associations have  
enhanced standards.



World Association of Zoos  
and Aquariums | **WAZA**  
*United for Conservation*

## IN THE PAST 10 YEARS:

Growing constituency questions the very premise of animals in “captivity.”



# PUBLIC PERCEPTIONS

Overall favorability has declined over past 10 years,

80% → 67% (zoos)      81% → 72% (aquariums)

- “Local” zoo/aquarium viewed more favorably.

Increasing concerns about “some animals” being in zoos/aquariums (35%, up from 27%).

Concerns strongest amongst Millennials.



# PUBLIC PERCEPTIONS

Priority for Millennials: welfare of individual animals.

Focus on "large and/or smart" animals.

Preference for "naturalistic" spaces.

Some concern regarding "shows."

Public perceptions of animal welfare are not the same as animal care professionals

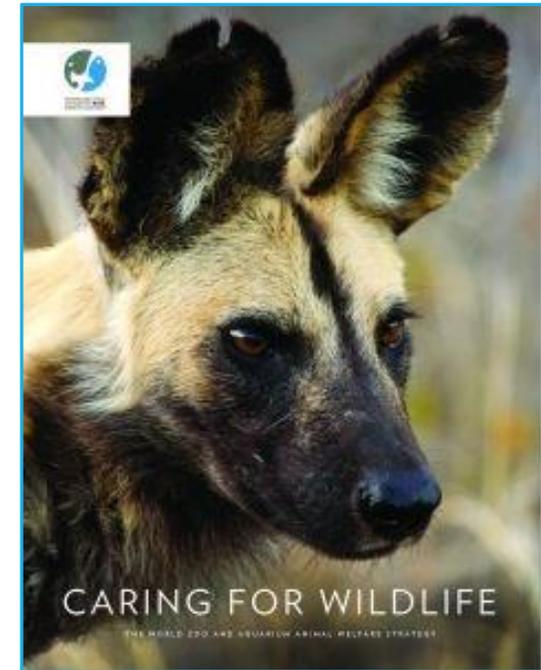
- Lions sleeping
- Natural spaces
- Habitat size.



# RESOURCES

Mellor, D, Hunt, S, Gusset, M (eds). 2015. Caring for wildlife: the world zoo and aquarium animal welfare strategy. Gland: WAZA Executive Office, 87pp.

[http://www.waza.org/files/webcontent/1.public\\_site/5.conservation/animal\\_welfare/WAZA%20Animal%20Welfare%20Strategy%202015%20Portrait.pdf](http://www.waza.org/files/webcontent/1.public_site/5.conservation/animal_welfare/WAZA%20Animal%20Welfare%20Strategy%202015%20Portrait.pdf)



San Diego Zoo Global Academy – 2 free online courses: Animal Welfare General and Animal Welfare Professional <http://sdzglobalacademy.org/courses.html>

Hekkers, J, Mellen, J, Ogden, J. 2017. Animals in professional care: How to understand and respond to animal welfare trends and issues. Developed for the International Association of Amusement Parks & Attractions. Contact IAAPA: [animalinfo@iaapa.org](mailto:animalinfo@iaapa.org) (IAAPA members only)



# Visitors' Perceptions of Animal Welfare

Brookfield Zoo  
Audience Research  
2014-2018

## 2014 Visitor Surveys

How IMPORTANT are each of the following to your overall zoo experience?  
Percent rating “Essential”

Clean restrooms	70%
<b>Care of the animals</b>	<b>69%</b>
Opportunity to see animal behavior	61%
Ability to have a face-to-face, up-close experience with an animal	50%
Attractiveness of zoo grounds/landscaping	46%

Visitor Face-To-Face Interviews – Summer 2015  
(N = 94)

- *At Brookfield Zoo we often talk about animal welfare. When you think about animal welfare how do you define it?*
- *What would you look for if you were deciding if an animal has good (or less than good) welfare?*
  - *We also asked visitors to give us examples of animals who had good welfare as well as examples of animals who had less than good welfare at Brookfield Zoo.*

# Animal Welfare Indicators – Content Analysis

<ul style="list-style-type: none"><li>• Characteristics of animal habitats (size, well-maintained, natural environment, things to do)</li></ul>	<b><i>Natural Living</i></b>
<ul style="list-style-type: none"><li>• Observed animal behaviors (alertness, energy level, mannerisms, interacting with other animals)</li></ul>	<b><i>Affective States</i></b>
<ul style="list-style-type: none"><li>• Physical appearance of animal (condition of coat/fur/skin, weight, attentive eyes)</li></ul>	<b><i>Basic Health and Functioning</i></b>

## Perception versus Interpretation

# Miscellaneous Animal Welfare Indicators

- Extreme temperatures (hot/cold)
- Harassment from visitors without staff intervention
- Good treatment from staff
- Available medical facilities
- Ability to procreate
- Focus on endangered species



# Animals with good (or less than good) welfare at Brookfield Zoo

- 29 animals were identified as having good welfare
- 15 animals were identified as having less than good welfare
  - 68% of sample indicated 'none'



# Animals identified as having both good and less than good welfare at Brookfield Zoo (depending on who we asked)

1. Bears
2. Big cats
3. Giraffes
4. Butterflies
5. Penguins
6. Zebras
7. Gorillas
8. Horses
9. Stingrays
10. Bison

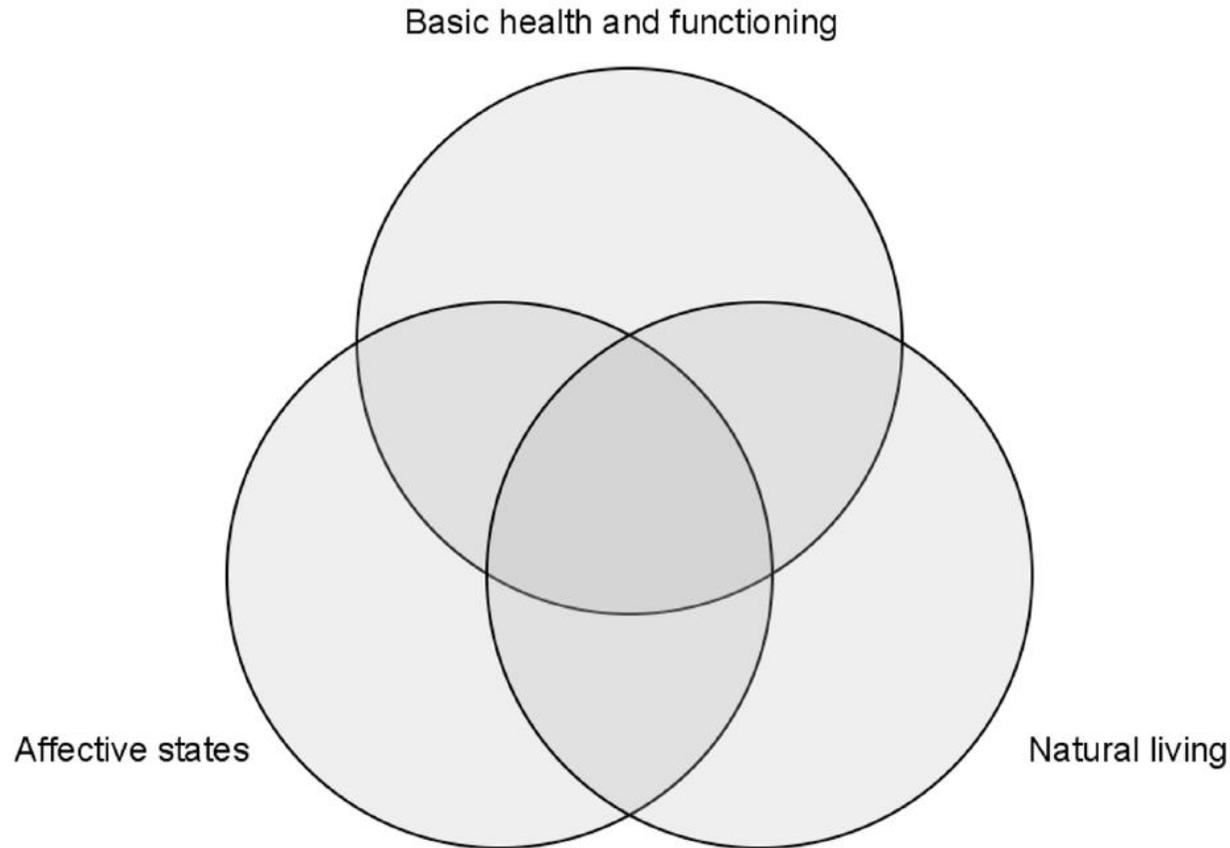


# Understanding Animal Welfare

## David Fraser

*Acta Veterinaria Scandinavica* 2008, 50:S1

<http://www.actavetscand.com/content/50/S1/S1>



“Understanding Animal Welfare” published in *Acta Veterinaria Scandinavica* 2008, 50 (Suppl 1), Article S1 (pages 1–7).

## Some visitors also have conflicted feelings

Some visitors do not like that animals are out of their natural habitats.

Described them as being “cooped up”

But they appreciate...

having opportunities to see wild animals

providing children with learning experiences

## Selected Guest Comments

“

*It's nice for children and families to be able to come and learn about them. I know it sounds bad to say having animals in captivity is good but the good outweighs the bad. It's good for kids and exciting for them. We would never be able to see the animals if they weren't here.*

## Selected Guest Comments

“

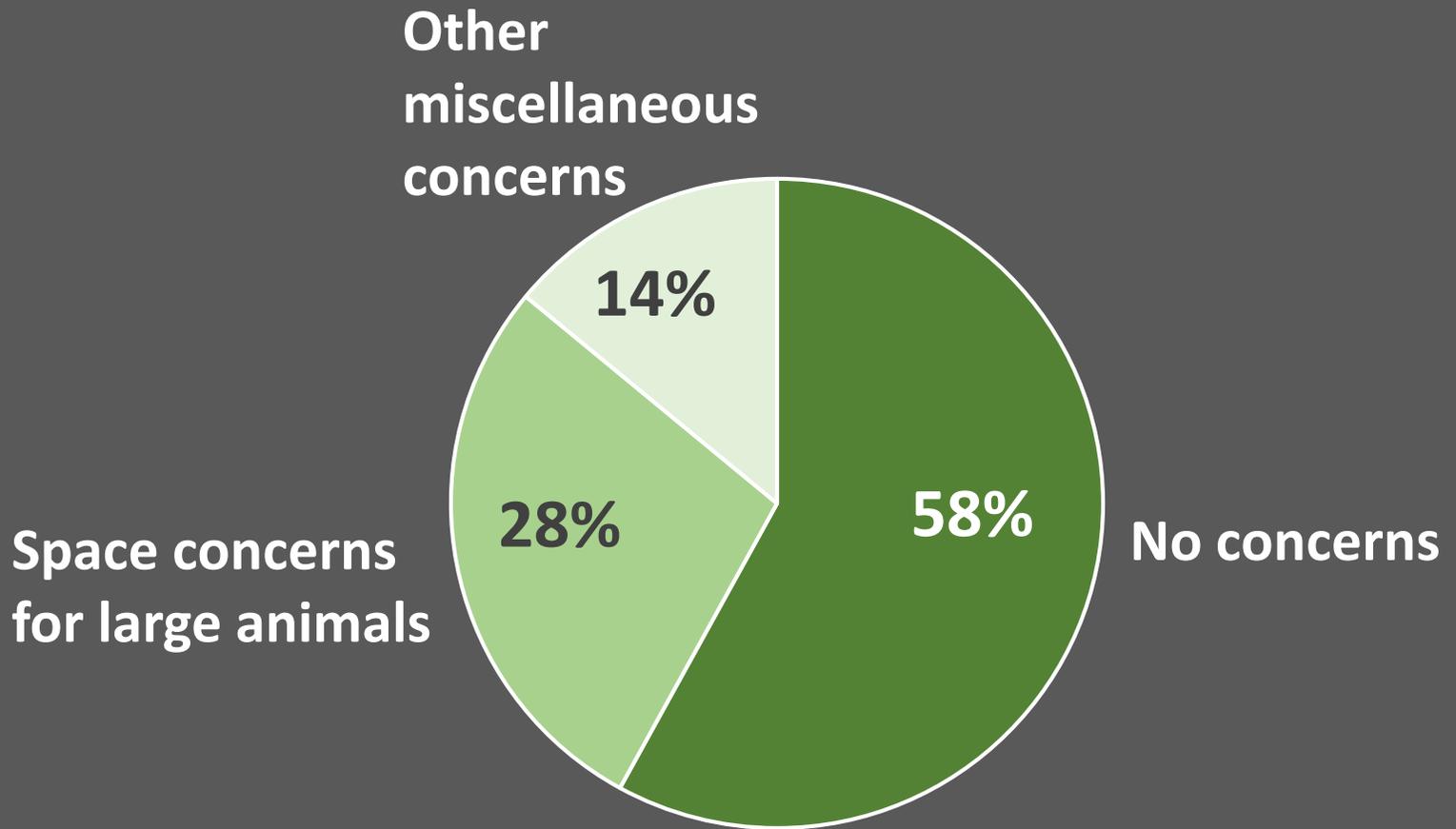
- *I don't really like to see animals in zoos but it's the only way to learn about them and see them. I don't like that they are caged up, and they can't roam.*
- *Seeing animals confined is hard to see. Zoos are useful for education but zoo designs in general need a new strategy.*

## Selected Guest Comments

“

- *I don't think it's the best for them to be in cages and I feel bad for them, but I like that I get to see them.*
- *I am concerned about all of the animals because I think they should be in the wild. However, people can't learn about animals if they don't see them up close, so I get it. I am a conservation person.*

# Do you have any concerns about having a particular species in a zoo or aquarium? Content Analysis



## Concerns about habitat space

“

- *Species like big cats, wolves, bears with big areas and more space in wild, they must get crazy being in a small area in the zoo.*
- *I'm concerned about the area for the dolphins. It seems kind of small. In general, I'm concerned about the small cages, especially for animals like orcas, dolphins, and other big mammals. They need big cages.*
- *Enough space for the animals. I want fewer animals in zoo ideally because they belong in the wild. Want less animals with more space.*

Regarding accredited zoos in general, please indicate how much you agree with each of the following statements.

	Percent top two ratings (4 or 5)
Animals in zoos are well cared for by staff.	89.1%
The way zoos treat their animals is humane.	81.0%
Education is the primary purpose of animals in zoos.	78.1%
The habitats of animals in zoos are natural and well cared for.	73.4%
It is important to have animals in zoos.	69.4%
Animals in zoos seem happy and content.	59.1%
Animals in zoos have enough space.	40.3%
Entertainment is the primary purpose of animals in zoos.	24.8%

Scale: Strongly agree = 5, Strongly disagree = 1.



***Thank you for your  
attention!!***

# Bridging Animal Welfare and Empathy

Stephanie Allard, Ph.D.

Detroit Zoological Society

# Has feedback from visitors led to any welfare actions or management changes at your institution?

Yes

No

Unsure

# Visitor perception of welfare



## Factors that can affect perception

Exhibit design (e.g., naturalism, Finlay et al., 1988, Kutska, 2009, McPhee et al., 1998)

Animal behavior (activity and visibility, Godinez et al., 2013; stereotypic behaviors, Miller, 2012)

Pre-existing knowledge/beliefs

## Is it accurate?

Is a little knowledge a dangerous thing?

Do visitor perceptions match welfare assessments?

Can/does anthropomorphism influence perceptions (e.g., “lonely” animals)?

Balance between welfare of individual animals and how to meet needs and/or reshape perceptions of visitors



# Speciesism

Is the perception of welfare impacted by how visitors view/feel about the species?

Greater concern for some species (e.g., large animals)

Are perceptions more accurate for some species?

Is it harder to increase empathy for some species than others?



# Outside influences to perception of welfare

Are we seen as the experts?

Where do visitors get their information?

Who do they trust?

AZA surveys (2008, 2013)

What are our challenges?



# Visitor expectations



What do visitors expect when they come to our facilities?

Goals of visits

What leads to disappointment/influences perception?

Are expectations realistic?

Are welfare needs of animals impacted by what visitors expect when they visit?

What is our responsibility in setting expectations that reflect the welfare of the animals?

# Care versus welfare

Good care (or provisioning for the basic needs of animals) is not the same thing as welfare (the animal's perception of their own experience).

Do visitors differentiate between caring for animals and animals experiencing good welfare?



# Impact of visitors on welfare

Research has demonstrated that visitors can have negative, neutral or positive impacts on animals

Impacts are influenced by the species and individual traits, how animals are presented and the behavior of visitors. (Hosey, 2005)

How do we communicate about the potential impacts to minimize negative ones and promote positive ones?



# Impact of welfare on visitors

Does awareness of the impacts of one's or others' behavior change what visitors do?

Can better welfare lead to changes in the visitors?



# How do we communicate about welfare?

Is welfare part of messaging?

What methods are successful?



# How does this relate to empathy?

Does empathy influence welfare?

Does welfare influence empathy?

Is it a two way street?



# Now what?

Increase our understanding of welfare/continue to improve welfare  
Communicate/educate about welfare to visitors/the public

Increase our understanding of how this translates to perceptions (and to changing those perceptions), (perhaps to) increase support of accredited zoos and aquariums, increased empathy and ultimately, to increased stewardship towards animals in all settings...



We need more research!