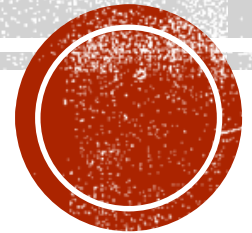


ANIMAL WELFARE

Arlene Garcia, Ph.D.



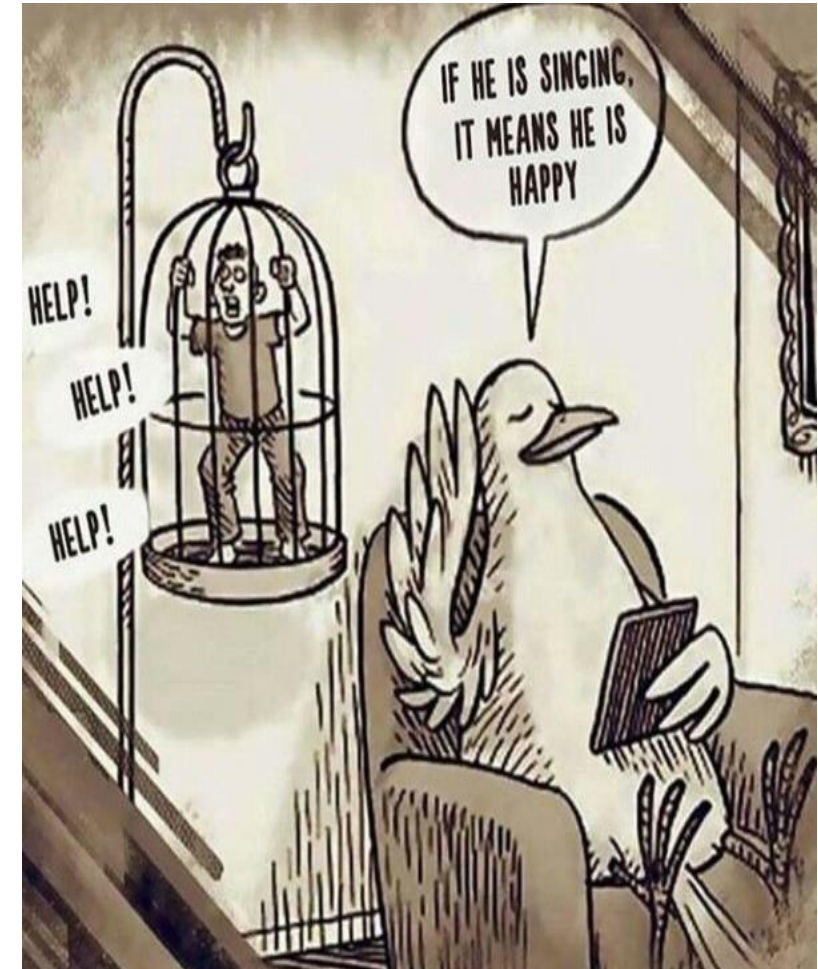
ETHICS

“moral principles that govern a person's behavior or the conducting of an activity”



ETHICS

- There are 5 types of ethical theories:
 1. Contractarianism- human centered
 2. Utilitarianism- benefit majority but...“maximize pleasure, minimize pain”
 3. **Animal Rights** (Peter Singer)- Legal and Moral
 4. Contextual Approaches- obligation dependent on situation
 5. Respect for Nature- Value of species/protection



ANIMAL RIGHTS

“The right animals have to their own life, to be free and not property (not to be used as food, clothes, research, pets, entertainment).”



ANIMAL WELFARE

- Animal Welfare- this has 2 distinct definitions
 - Welfare- the characteristic of an animal, not something that is given to it
 - Animal welfare- quality of an animal's life as it is experienced by the individual animal



ANIMAL WELFARE

- Arose from the ethical concerns about the way that we treat animals
- The World Organisation for Animal Health (OIE) defines good animal welfare as:
“healthy, comfortable, well nourished, safe, able to express innate behavior, not suffering from unpleasant states such as pain, fear, and distress”



ANIMAL WELFARE

- It is multi-faceted
- Disagreement between different stakeholders
 - Veterinarians
 - Farmers
 - Researchers
- The best known example to define good animal welfare are the 5 freedoms



FIVE FREEDOMS

1. Freedom from hunger and thirst
2. Freedom from discomfort
3. Freedom from pain, injury or disease
4. Freedom from fear or distress
5. Freedom to express normal behavior

The RSPCA believes that anyone responsible for looking after animals should try to give them the five freedoms. The five freedoms are considered aspirational, as they cannot always be achieved and maintained at all times. For example, an animal may need to feel hungry before it will eat. However, animal keepers should always aim to provide the five freedoms to their animals as far as possible.

For more information about animals' needs see:

www.rspca.org.uk/animalcare



Freedom from hunger and thirst –

by providing enough fresh water and the right type and amount of food to keep them fit.



Freedom from discomfort –

by making sure that animals have the right type of environment including shelter and somewhere comfortable to rest.



Freedom from pain, injury and disease –

by preventing them from getting ill or injured and by making sure animals are diagnosed and treated rapidly if they do.



Freedom to express normal behaviour –

by making sure animals have enough space, proper facilities and the company of other animals of their own kind.

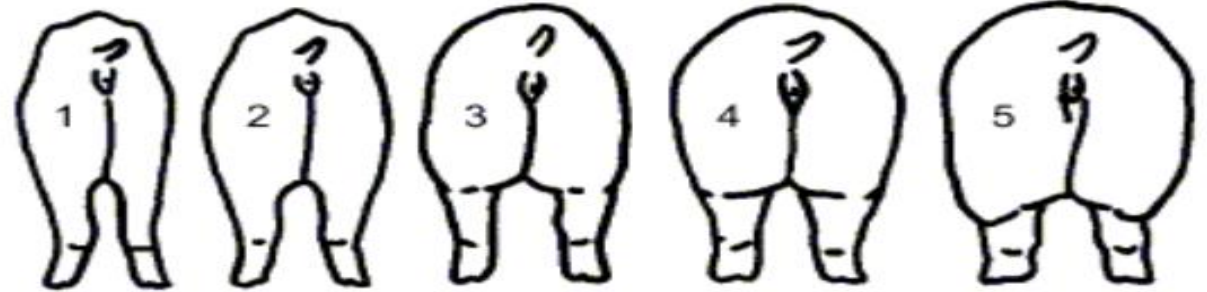


Freedom from fear and distress –

by making sure their conditions and treatment avoid mental suffering.

HUNGER AND THIRST

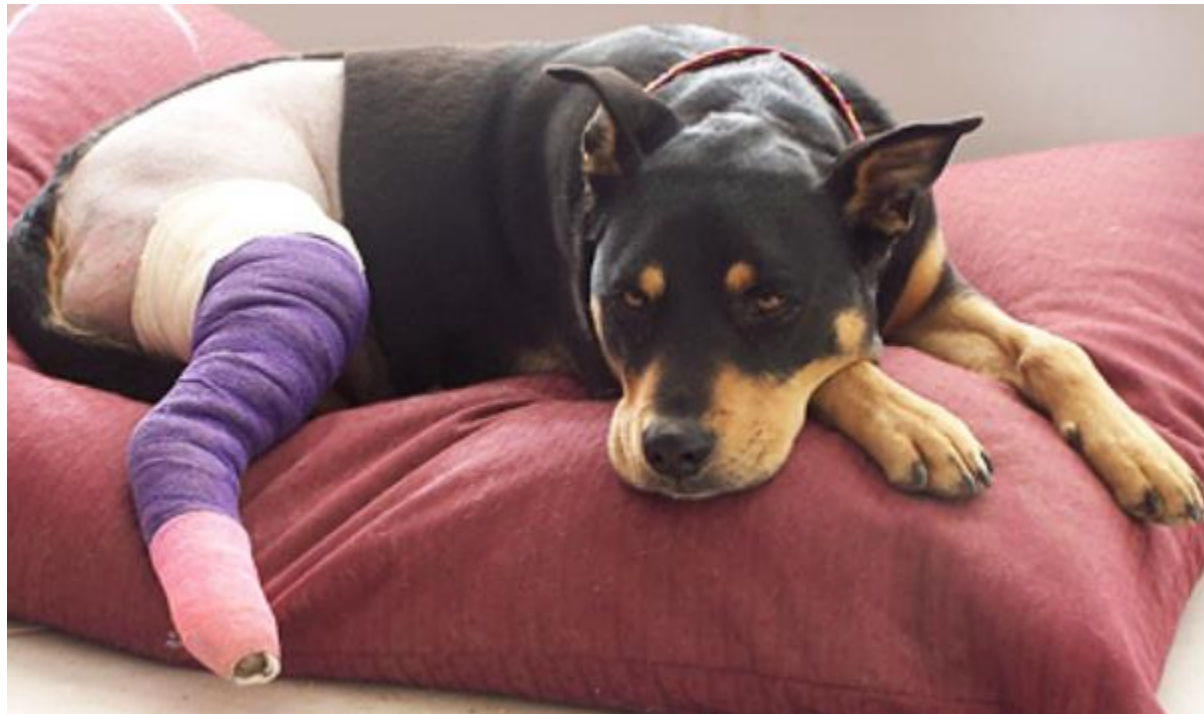
- Feeding and drinking are the most natural behaviors an animal will display
 - Major effect on survival, performance, reproductive success
 - Many times animals are feed restricted
 - Molting of chickens
 - Breeding stock



Score	Condition	Detection of ribs, backbone, "H" bones, and "pin" bones
1	Emaciated	Obvious
2	Thin	Easily detected with pressure
3	Ideal	Barely felt with firm pressure
4	Fat	None
5	Overly fat	None

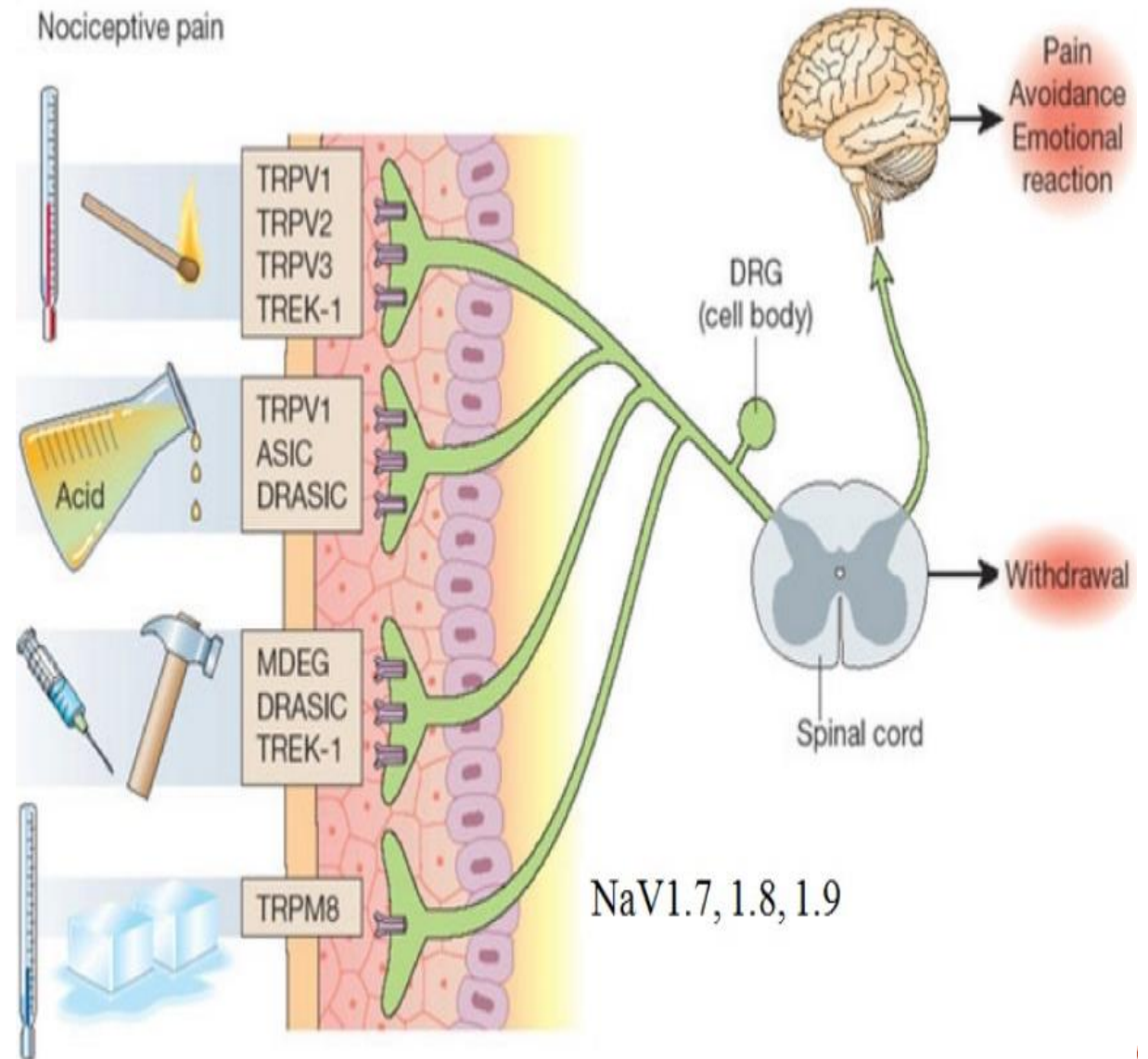
PAIN

“An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage”












PAIN

- Nociception vs Pain
 - Nociception is the ability to feel noxious stimuli
 - Pain includes an emotional experience and depends on the CNS for processing



PAIN

- How do you determine if an animal is in pain?
 - Physiological changes
 - Behavioral changes
 - Sensory/Sensitivity testing
 - Grimace Scales
 - Lameness Scores

Characteristic	Score 0	Score 1	Score 2
Orbital tightening			
Cheek tension			
Overall pain			

PAIN

- Pain is a major animal welfare concern
 - Can cause metabolic changes
 - Impair wound healing
 - Result in immunosuppression
- What are some of the common causes of pain in animals?
- Pain management remains suboptimal in all industries
- Leads to economic losses as well



PAIN

- What do you do if you can not control or minimize pain?



FEELINGS/EMOTIONAL (SENTIENCE) STATE

- How do we know if feelings affect welfare or do they play a role at all?
 - Nutrient deficiency.... Causes the animal to feel hunger (subjective).... and can reduce the animal's welfare
 - Disease.... Cause the animal to feel ill (subjective).... and can reduce the animal's welfare
- Sentience was believed to be beyond the reach of science



BEHAVIORAL RESTRICTION

- Is a well fed and physically healthy animal in a good state of welfare?
- Behavioral restriction plays a major part in human punishment
 - Time out
 - Grounded
 - Prison
 - Solitary confinement
- In the UK sufficient space, proper facilities, and the company of the animal's own kind is a pre-req for good animal welfare and part of the 5 freedoms



BEHAVIORAL RESTRICTION

- **Motivational states** - are states within the brain that determine the likelihood and intensity of a given behavioral pattern
 - Efforts that an animal will make until they achieve what they want
- Satisfying strong motivations seems emotionally positive
 - some motivations can be behavioral
- Being unable to satisfy strong motivations is a situation known as → **Frustration**
 - **Very negative/aversive!**
- Satisfying motivations is crucial for animal welfare



BEHAVIORAL RESTRICTIONS

- How do you identify motivational frustration?

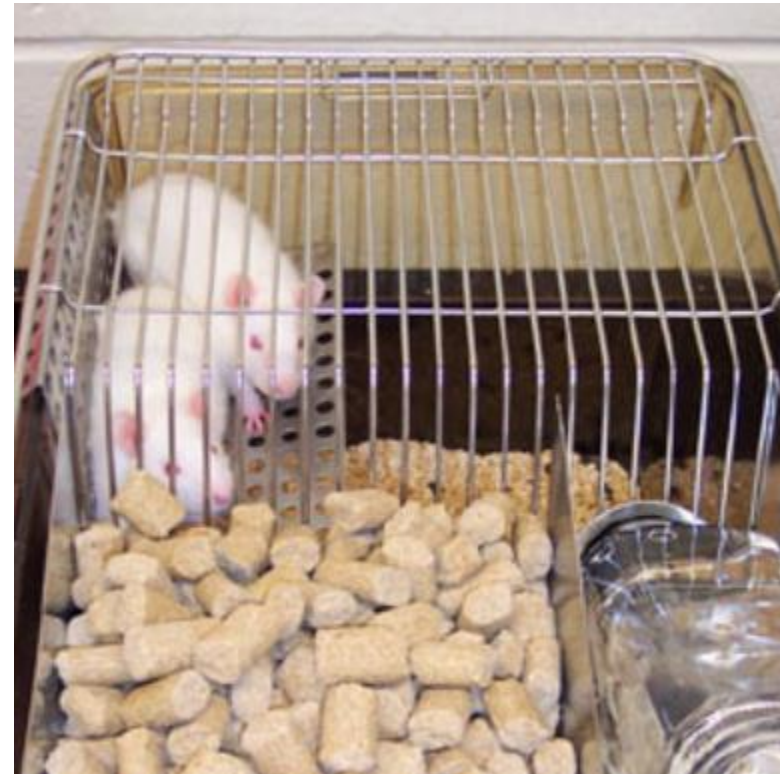
→ Induce frustration in a controlled way

- Example 1: Expose hungry animals to situations in which they have learned to expect food and then withhold it
- What do you expect will happen?



BEHAVIORAL RESTRICTIONS

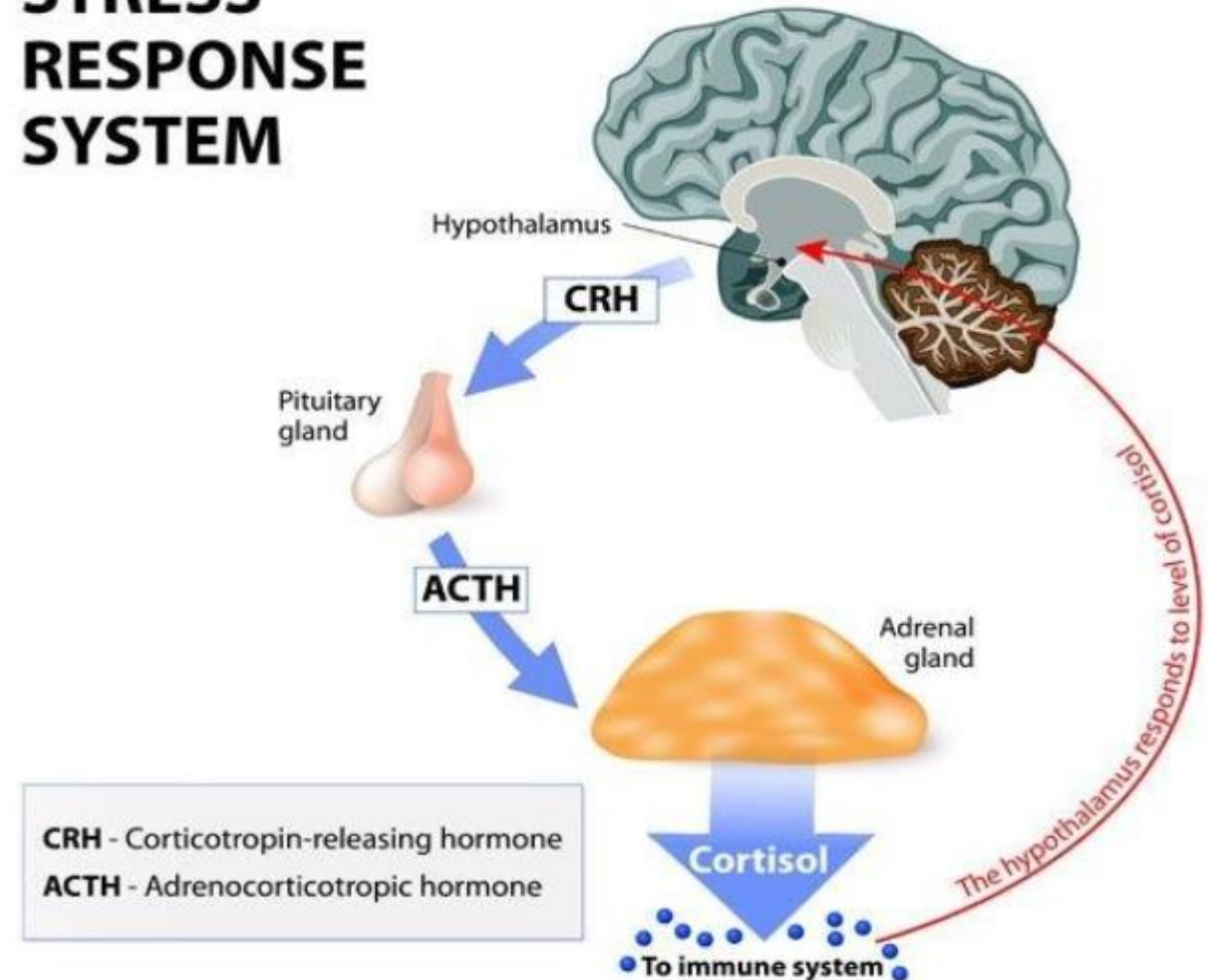
- Escape attempts will occur
- Distress signals (vocalizations)
- Attempts to eat the absent or inaccessible food
- Aggression
- Briefly drinking
- Preening, grooming, self-touching
- Stereotyped pacing
- Feather plucking
- Bar chewing/bar flipping in mice



BEHAVIORAL RESTRICTIONS

- Physiological effects include sympathetic responses
 - Elevated blood pressure
 - Corticosteroid release
- Frustration can also lead to decreased resistance to disease
 - Compromise health and reproduction

STRESS RESPONSE SYSTEM



ASSESSING ANIMAL WELFARE

- Required by many retailers and chain restaurants
 - Endorse certification schemes for on-farm animal welfare assessments
- Research laboratories are required to establish experimental procedures that include humane endpoints

humane endpoints mean that earlier, less severe clinical signs are used to determine the point at which animals are euthanized rather than awaiting spontaneous death



ASSESSING ANIMAL WELFARE

- Developing and testing measures that work is critical
- 4 fundamental questions
 1. Is it practical? (how long will it take and how much will it cost?)
 2. Does it tell you something real about the animal's welfare? (is it valid?)
 3. Can two or more assessors give you the same answer/score? (repeatable?)
 4. Can it be influenced by weather, season, time, day? (robust?)



ASSESSING ANIMAL WELFARE

- Varies from one setting to another
 - Small to large facilities
 - Assess facilities based on their animal numbers
- Animals may need to be assessed in groups or individually



ASSESSING ANIMAL WELFARE

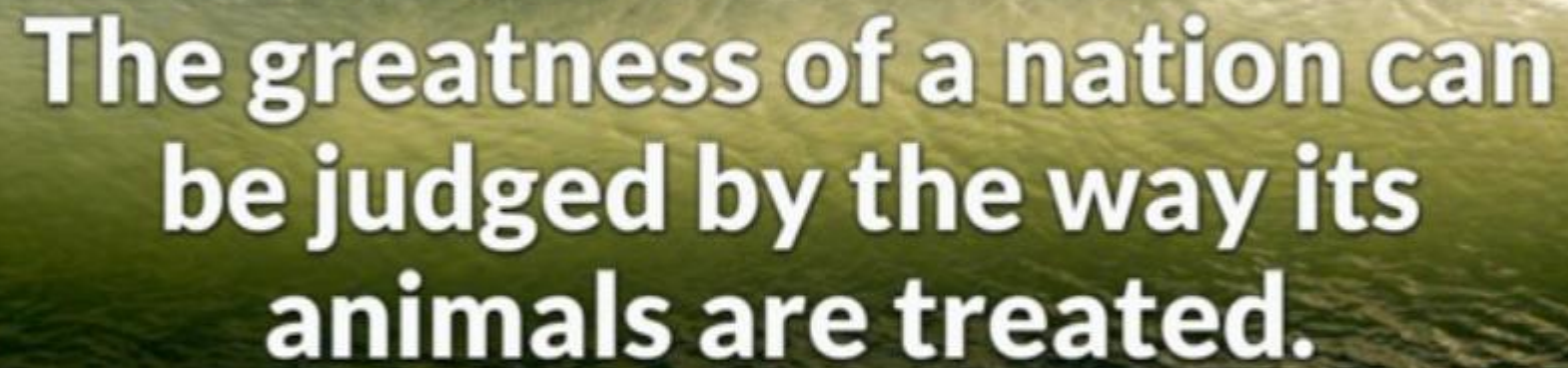
- What should be measured to assess welfare?
 - Properly fed/watered
 - Properly housed
 - Appropriate veterinary care
 - Space allowance
 - Animal based measures (depending on the audit)
 - Facility itself
 - Temperature
 - Ventilation



ASSESSING ANIMAL WELFARE

- Things to remember....
- Not all research with animals results in animals suffering BUT... when it does it is bc it requires that animals develop pathologies and those are accompanied by animal welfare problems
- The more severe a pathology/disease the more animals welfare will be compromised
 - Criteria should be established for pain relief and humane endpoints if necessary
 - Monitoring of the animals is crucial!





**The greatness of a nation can
be judged by the way its
animals are treated.**

Mahatma Gandhi

