Human animal bonds in the zoo

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Humans in the zoo
Little is known about zoo professionals

- Stockmanship style is shaped by:
  - Attitudes, knowledge, experience, personality, self-esteem, job satisfaction….

- **'Good' stockpeople**:
  - Describe animals in a positive manner
  - Have positive attitude towards them
  - Initiate positive interactions with them
    - Positive interactions: feeding, petting, 'positive voice & mannerisms'

Boivin et al, 2003; Hemsworth, 2003; Waiblinger et al., 2006

Animals in zoo
How might they perceive us?

- Hediger suggested that animals may view people as:
  - an enemy (to be avoided)
  - prey
  - a symbiont (a partner, working towards a common goal)
  - a conspecific (a rival, sexual partner)
  - no consequence
  - *a friend?*
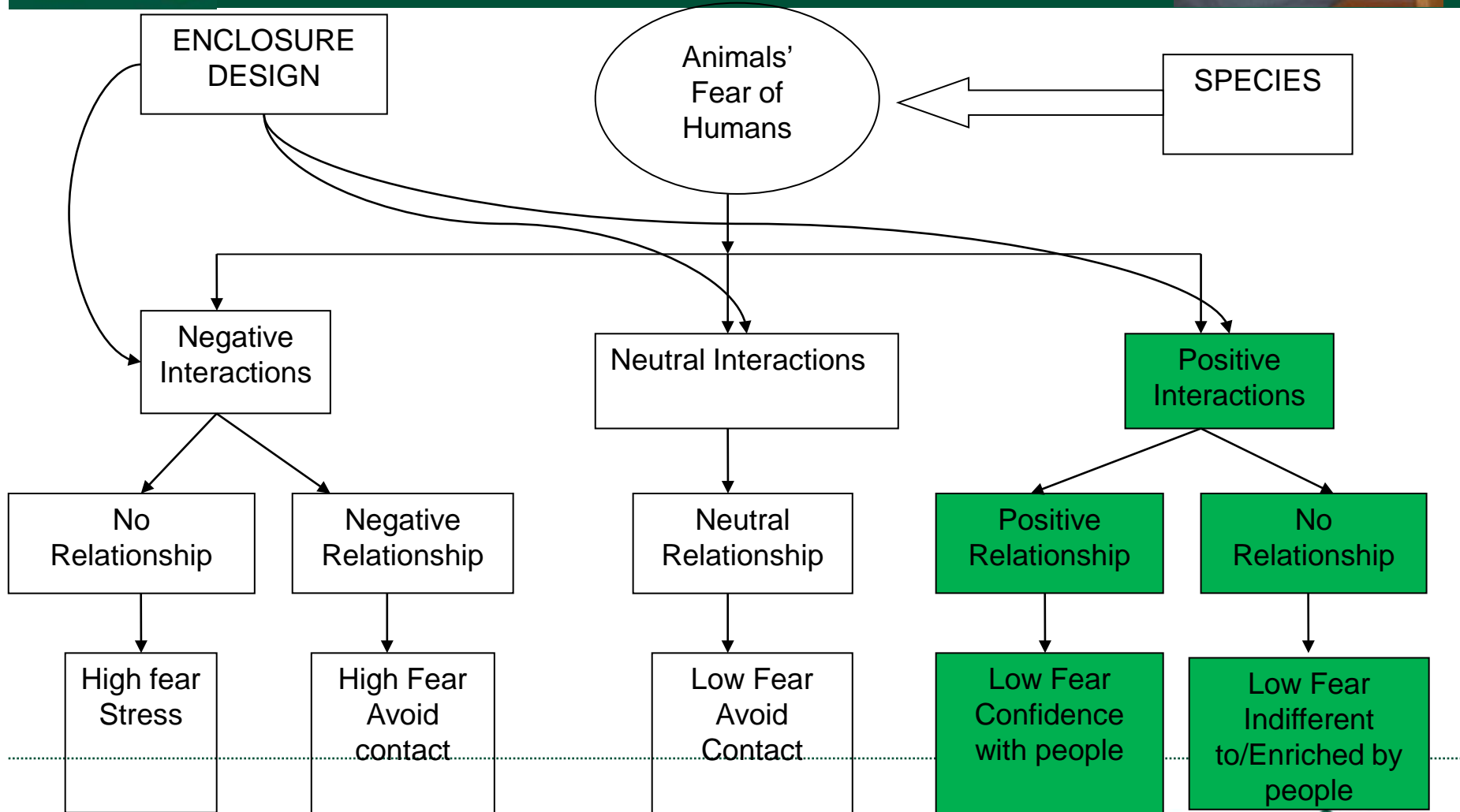
- What is this shaped by? How do we measure it?

Hediger, 1965

HAI → HAR

HAR type effects animal welfare

Interaction	Species	Effect	Reference
Negative	Pig	↓ growth rate. ↓ reproduction.	Coleman *et al.*, 1996 and 2000.
Negative	Dairy cow	↓ milk yield, protein and fat. ↑stress.	Hemsworth *et al.*, 2000.
Positive	Chimpanzee	↓ abnormal behaviours e.g. R&R ↑ chimp activity	Baker, 2004
Positive	Common marmoset	↑ allo-grooming ↑ play behaviours	Manciocco *et al.*, 2009.

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A model of HAR in zoos
Multiple factors influence HAR

ENCLOSURE DESIGN

Animals' Fear of Humans

SPECIES

Negative Interactions

Neutral Interactions

Positive Interactions

No Relationship

Negative Relationship

Neutral Relationship

Positive Relationship

No Relationship

High fear Stress

High Fear Avoid contact

Low Fear Avoid Contact

Low Fear Confidence with people

Low Fear Indifferent to/Enriched by people

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Hosey, 2008

Very positive HAI → HAR → HAB

- HAI permit predictions to be made about future behaviour, and lead to consequential behavioural modification
  - *"a mutually beneficial and dynamic relationship between people and other animals that is influenced by behaviours that are essential to the health and well-being of both"*
- Criteria:
  - requires a HAR
  - reciprocal and persistent
  - should promote increased well-being for both parties

Hosey & Melfi, 2012; AVMA, 1998; Russow, 2002;

Measuring HAB

- Capturing information from people, animals and their interactions…
- Surveys of people
- Observations of HAI
  - Looking at human initiated interactions
  - Looking at animal behaviour responses
  - Observing the consequence of modifying HAI (HAR)
- Investigating what factors influence animals' responses to human?
- How do animals perceive humans?

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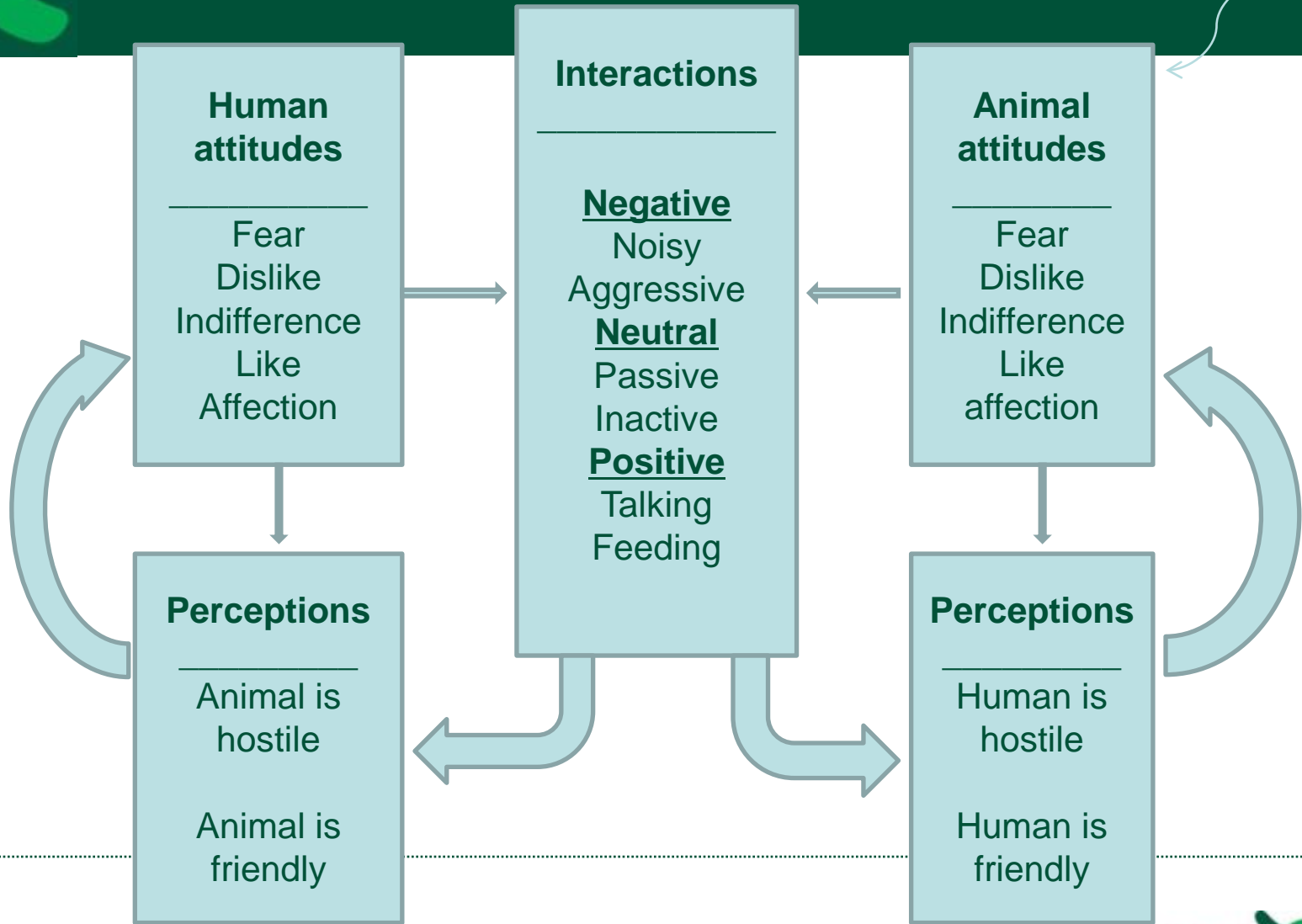
What do we know
Not much!!!

- Keepers
  - Report they have a bond with some animals in their care
  - HAI can be measured; positive/negative interactions, escalations
  - Interact differently with different animals
- Animals
  - Distinguish between familiar and unfamiliar keepers
  - HAI are affected by: sociality, prior training, zoo
  - Training can have counter intuitive impacts on HAI
- Next…..

Hosey, submitted

Acknowledgements

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