

# Human-Animal Interactions



This lecture was revised by **World Animal Protection** scientific advisors in 2012 using updates provided by Dr Caroline Hewson.

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# This module will teach you

## Background to human–animal interactions

- ✦ Why we bond with animals
- ✦ Psychological points: attitudes, cognitive dissonance

## How our interactions can affect animal welfare and what to do about it

- ✦ Farm animals
- ✦ Horses (draught and leisure)
- ✦ Companion animals
- ✦ Animal cruelty: abuse and neglect

# Domestication

**“Domestication is that process by which a population of animals becomes adapted to man and to the captive environment by some combination of genetic changes occurring over generations and environmentally-induced developmental events recurring during each generation” (Price, 2002)**

## Companionship

⌘ **Utility (work, food, entertainment)**

**Relationship over time – mutually beneficial – creates obligation for us to treat them well (e.g. Anthony, 2003; Rollin, 2006)**



Credit: Colin Seddon

# Emotional bond (Timmins, 2008)

**Attachment theory: we are social, emotional beings and need to communicate and empathise with others**

**Biophilia: love of 'life' – nature / living beings**

**Human–animal bond (HAB)**

- ❖ **Emotional attachment to (companion) animal**
- ❖ **Farmers too, e.g. animals are “like friends” (Convery et al., 2005); “the government almost completely denied that farmers have bonds with their animals” (Van Haaften et al., 2004)**

**Cognitive dissonance**



# Cognitive dissonance theory (Festinger, 1957)

**Conflicting views or motivations ⇒ unpleasant emotions ⇒ change behaviour or attitudes to avoid or overcome, e.g.**

- ❖ **Ritual to win approval of hunted animals**  
(Serpell & Paul, 1994)
- ❖ **Separation of roles, e.g. butchers;**  
**women raise, men kill (Fisher 1983)**



**Farm animals = “sentient commodities”**  
(Wilkie, 2005)

- ❖ **Breeders and small farmers – concern and attachment**
- ❖ **Dealers and commercial livestock workers – detachment**

# Factors affecting human behaviours towards animals

**Psychological: cognitive dissonance, attitudes, personality, experience, empathy, mood** (Hemsworth & Coleman, 2010)

**Sociological: job conditions, time pressure, personal circumstances** (Hemsworth & Coleman, 2010; Burton et al., 2012; Kauppinen et al., 2012)

**Physical: design of housing / infrastructure** (Burton et al., 2012)

**Anthropocentrism: interpreting reality in terms of human experience – pets** (Bradshaw & Casey, 2007)

# Factors affecting human–animal relationships (Hemsworth & Boivin, 2011)

## Our behaviour

- ⌘ Their early experience of it, e.g. presence of dam, frequency of interaction
- ⌘ Their later experiences of it

## Genetics

History of interactions over time ⇒ animal can make predictions about the caregiver and vice versa (Hosey, 2008)

# Animals' perception of us (Waiblinger et al., 2006)

## Review

- ❖ Sensory input, processed by brain in light of past experience (e.g. memory of interactions with us), creates behavioural response to us

## Positive: low fear, high confidence

- ❖ Frequent, calm, friendly interactions

## Neutral: low fear but animal

## avoids contact

- ❖ Has not had negative contacts, but only mildly positive ones and not frequent enough

## Negative: high fear

- ❖ Negative interactions
- ❖ Affects animal welfare and human safety



# Effect on animal welfare

(Waiblinger et al., 2006; Hemsworth & Boivin, 2011)

**Negative relationship ⇒ reduced animal welfare**

- ❖ **Feelings/mental state: fear**
- ❖ **Physical functioning: pain, reduced immunity, reduced productivity and meat quality**
- ❖ **Important behaviours: inhibited by excessive vigilance**

**Positive relationship ⇒ increased welfare, e.g. in dogs**

- ❖ **Playing with puppies**
- ❖ **Stroking**
- ❖ **Food treats**

# How to measure fear of handler?

**Difficult to measure validly** (De Passillé & Rushen, 2005; Rushen & De Passillé, 2010)

## Measures, e.g.

- ❖ How closely the animal will approach a stationary person?
- ❖ How close the animal will allow a person to come to them?

## Other indicators may be

- ❖ How closely the animal will approach a stationary person?
- ❖ Stockperson's attitude to routine husbandry tasks
- ❖ Number of times animals are hit
- ❖ Growth rate, vocalisation



# Summary so far

**Domestication ⇒ human care / behaviour is greatest influence on animals' welfare**

**Typically we have some degree of emotional bond with them**

⊞ **Modified by cognitive dissonance**

**Psychological, sociological and environmental factors affect our interactions and thus, animals' welfare**

⊞ **Negative vs. positive relationships affect their feelings, physical functioning and behaviour**

⊞ **Measures of this**

# Farm animals

## (Hemsworth & Coleman, 2010)

### Stockperson as welfare input

- ❖ On farm, at markets, at abattoir

### Attitudes affect behaviour, which affects animals' fear

- ❖ Fear ⇒ animal behaves in ways that cause more negative human attitudes and more negative human behaviours
- ❖ E.g. frightened animal runs away ⇒ handler perceives animal wastes time ⇒ shouts and uses dogs ⇒ animal is afraid and runs away, etc.

# Factors affecting handling of farm animals

**Theory of planned behaviour** (Ajzen 2002; Kauppinen et al., 2012)

- ✦ **Attitude towards the behaviour**
- ✦ **Belief that we can perform the behaviour**
- ✦ **Opinions of people who are important to us**

**Assumes behaviour is only cognitive / rational when in fact wider issues may affect us subconsciously** (Burton et al., 2012; Kauppinen et al., 2012)

- ✦ **Culture of each farm / abattoir / laboratory**
- ✦ **External circumstances, e.g. own health**

# Example: dairy cows 1

**Farmers' empathy for painful conditions correlated with lower prevalence of carpus lesions** (Kielland et al., 2010)

**Aversive handling** ⇒ **fear** (Rushen & De Passillé, 2010)

- ❖ **Reduced milk let-down (accounted for 16–30 per cent of differences in overall production between farms studied)**
- ❖ **Increased calving-to-conception interval (accounted for 14 per cent of the difference between farms in conception rate)**
- ❖ **Higher somatic cell counts**

# Example: dairy cows 2

## Positive emotions (Hemsworth & Boivin, 2011)

- ❖ Stroking neck causes relaxation
- ❖ Positive handling reduces restlessness during rectal examination

## Gentle handling as 'win-win' strategy

- ❖ Improves animals' experience (welfare)
- ❖ Increased productivity improves farm income
- ❖ Improves job satisfaction



# Pigs

(Rushen & De Passillé, 2010)

## Gentle handling

- Higher growth rates (e.g. 15 per cent higher in baby pigs)
- Much higher pregnancy rates at second oestrus in gilts (33 per cent vs. 87 per cent)

- Finland: extra piglet per sow per year for farmers who valued humane treatment; believed it was easy to provide this without harming their own wellbeing; valued the advice of experts, e.g. their vet (Kauppinen et al., 2012)

## Theory of planned behaviour



# Abattoir

**Handling affects welfare (Grandin, 2010), e.g.**

- ❖ **Cortisol**
- ❖ **Meat quality e.g. bruising**

**Attitudes to the animals affects handlers' behaviour (Coleman et al., 2012)**

- ❖ **Correlation between perception of time pressure among staff and negative handling techniques**



# How to improve the handling of farm animals

(Hemsworth & Coleman, 2010; Grandin, 2010; Burton et al., 2012)

**Win-win strategy**

**Improving the facilities**

**Improved job conditions, e.g. pay**

**Standards and auditing**  
(Grandin, 2010)

**Training and monitoring**

- ⌘ Not just knowledge – also attitudes, etc.
- ⌘ E.g. Australia ‘Professional Handling of Pigs’ programme

**Selection of personnel**

# Leisure horses 1

(Hausberger et al., 2008)

**Much research needed: people are unaware of how much they frighten horses, e.g.**

- ❖ **Forced handling of foals is stressful and likely to make them fearful of humans later on**
- ❖ **Training methods (Jones & McGreevy, 2010)**
- ❖ **Need to train, ride and interact in ways that are consistent with the horse's social ethology (McGreevy et al., 2009)**

# Leisure horses 2

**Positive interactions create long-lasting memory and generalise to other handlers (Sankey et al., 2010)**

- ❖ **Controlled experiment: food reward vs. no reward**
- ❖ **Trained to remain immobile on command: five minutes per day, five days per week**

❖ **Food rewards** ⇨

- ❖ Learned more quickly (~3.7 hours vs. 5.2 hours)
- ❖ **Six months later, food-rewarded group:**
  - ❖ Had a lower fear of humans
  - ❖ Remembered their trainer
  - ❖ Remembered more of the commands

# Working equids

## Fear of handler?

(Pritchard et al., 2005; Burn et al., 2010)

- ⌘ Aggression to approaching person: 5–~45 per cent
- ⌘ High levels of apathy, lameness, etc. – could create negative attitudes in the owners?

## Participatory group methods of improving handling and care

(Whay, 2010; Pritchard et al., 2012)

# Companion animals

## (Downey & Ellis, 2008)

### People keep them for companionship

- ⌘ Owner has opportunity to give care
- ⌘ Neoteny

### People keep them because they are desirable 'objects'

- ⌘ Owner has opportunity to give care
- ⌘ Fashion / status
- ⌘ Interest – collection
- ⌘ Gifts for children, etc.
- ⌘ Market research on pet owners – interactions with pets are referred to as “consumption patterns” (Downey & Ellis, 2008; Mosteller, 2008)

### Human–animal bond (HAB)

# Benefits of HAB to people

(Barker & Wolen, 2008; Gutiérrez et al., 2007)

**Health: dementia, cardiovascular disease**

**Promote socialisation**

**Enhance emotional development in children**  
**+ / – concern for animals and people in adulthood**  
(Endenburg & van Lith, 2011)

**“Bond-centred veterinary practice” ⇒**  
**economic success?**  
(Lue et al., 2008; Ormerod, 2008)

**Disabled or restricted humans, e.g.**

- ⌘ **Pets visiting hospitals**
- ⌘ **Children with cerebral palsy riding horses**
- ⌘ **Utility animals – guide dogs, seizure dogs, etc.**



# Problems of HAB for companion animals (Wensley, 2008)

## **'Member of the family'**

- ⌘ Anthropocentrism (Bradshaw & Casey, 2007)

## **Obesity** (German, 2010)

## **Undesirable behaviours, e.g.** Iran (Khoshnegah et al., 2011)

Largest reason for euthanasia in USA and other countries (Salman et al., 2000)

## **Biases owners' perceptions**

- ⌘ Owners' ratings of their dogs' health biased by feeling of companionship / strength of bond (Schneider et al., 2010)
- ⌘ Lack of recognition of breathing difficulties in brachycephalic breeds (Packer et al., 2012)



# Animal-assisted therapy (Serpell et al., 2010)

## Emphasis on pure-breds

- Tendency for inbreeding; increases heritable diseases

## Very restricted early experience

- Kennels

## Punishment-based training methods

## Inadequate home environment

## Badly designed equipment

- Harness used for pulling wheelchair

## Owners do not receive adequate oversight / refresher training

## Therapy horses – stressed by some children (Kaiser et al., 2006)

# Communicating with your clients (Shaw, 2006)

1. Non-verbal communication
2. Open-ended questions
3. Reflective listening
4. Empathy



# Summary so far

## Why we bond with animals

## How our interactions (welfare input) can affect animal welfare

- ❖ Farm animals
- ❖ Horses
- ❖ Companion animals

## Animals used in assistance and therapy

## Cruelty to animals – neglect and abuse

# Animal abuse and neglect

## Animal abuse

- ❖ “Behaviour performed by an individual with the deliberate intention of causing harm (i.e. pain, suffering, distress and / or death) to an animal with the understanding that the animal is motivated to avoid that harm” (Gullone, 2009)
- ❖ Physical or psychological, e.g. kicking, stabbing, teasing
- ❖ Non-accidental

## Neglect

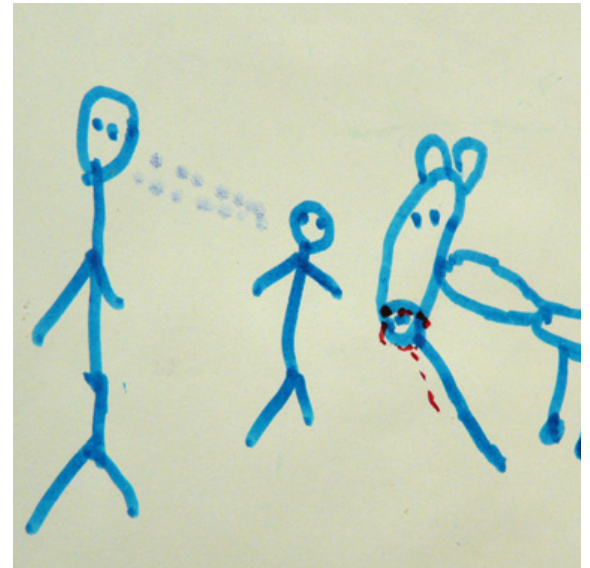
- ❖ Failure to provide minimum standards of care

# Why animal abuse is an important concern (Linzey, 2009)

## Animal suffering

**'The link': cruelty to animals is linked to violence against humans**

- ❖ **Women**
- ❖ **Children who see and perform animal abuse are more likely to be violent in adult life**



# Why do people abuse animals?

(Linzey, 2009)

**Witnessed or practised it as a child: 'the link'**

**Other motivations, e.g.**

- ❖ **To control the animal**
- ❖ **To retaliate against a person**
- ❖ **To control or threaten a person**
- ❖ **Neurochemical component? Dopamine – predation – pleasurable?**

# **Animal hoarders**

**(Patronek & Nathanson, 2009; HARC, 2010)**

**More than the typical number of companion animals**

**Fail to provide minimum care ⇒ death from starvation, etc.**

**Denial of inability to care for all animals**

**Persistence in collecting animals**

**May have mental health problems, e.g. compulsive behaviour, disordered attachment**

# What you need to do as a practising veterinarian

(Munro, 1998; Munro & Thrusfield, 2001; Yoffe-Sharp & Loar, 2009)

How to recognise animal abuse and neglect

What to do about it for those animals

What to do about it for the owner who may be at risk of domestic violence (because of 'the link') (MAV, 2011)



# Summary

**Domestication ⇒ human behaviour is greatest influence on animals' welfare**

**Psychological, sociological and environmental factors affect our interactions:**

- ❖ **Unconscious negative effects on welfare, e.g. the human–animal bond**

**Client communication**

**Animal abuse and importance of ‘the link’**

- ❖ **Concepts in Animal Welfare Toolbox**  
**[www.animalmosaic.org/education](http://www.animalmosaic.org/education)**

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