History of animal welfare education
Summary: History?

- Where are we now?
- Where have we come from?
- Where are we going to?
Animal welfare & veterinary profession

- RCVS Declaration:
  - “I promise above all that .... my constant endeavour will be to ensure the welfare of the animals committed to my care.”

- Guiding Principles from RCVS Guide to professional conduct
  - Your clients are entitled to expect that you will - make animal welfare your first consideration in seeking to provide the most appropriate attention for animals committed to your care.
Our challenge:

“Our profession is, I am sadly afraid, at best a conglomeration of highly trained technicians who have been betrayed by being denied a university education. Its corporate ability to understand the concept of animal welfare is stultified by intellectual emasculation, and adulterated by vested financial interests and egoisms. Its contribution to the debate is, therefore, likely to remain crass”

D.J. Coffey, Vet Times, September 1997
What knowledge & understanding is needed?

- Appraise husbandry systems
- Inform clinical decisions
- Basic welfare science
- Clinical welfare assessment
- Manage ethical dilemmas
- Legislation / standards
What are we trying to achieve? : $\Delta$ attitude?

Increasing Empathy

1st Year  Final Year

Attitudes in vet students (Paul & Podbersbeck 2000)
Attitudes affects Actions!

- Male vets use less pain killers during routine surgery (Capner et al, 1999)
Animal welfare education: Summary

- Welfare = good husbandry & clinical practice?
- What is our impact on animals? : Science
- How should we treat animals? : Ethics
- How must we treat animals? : Private / Public Standards
University of Bristol: Welfare & ethics teaching

- Year 1 – welfare & ethics element in animal management
  - 10 lectures, 2 debates, 2 discussion sessions, written project
- Year 2 – behaviour
- Year 3 – farm welfare – 6 lectures group discussion,
- Year 4 – 1 lecture – clinical ethics, small group discussion

- Collaboration with Dorothy McKeegan Jennifer Duncan BVA Animal Welfare Foundation
  - learning outcomes in science, ethics & law
<table>
<thead>
<tr>
<th>Learning outcomes for Animal Welfare Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand common definitions and concepts of welfare e.g. Five Freedoms</td>
</tr>
<tr>
<td>Aware of the range of welfare issues facing animal groups and understand why these differ - food animals, companion animals, experimental animals, zoo animals/wildlife</td>
</tr>
<tr>
<td>Understand scientific approaches to animal welfare</td>
</tr>
<tr>
<td>Understand the role of science in welfare assessment</td>
</tr>
<tr>
<td>- physiological indicators of welfare and stress responses</td>
</tr>
<tr>
<td>- behavioural indicators of welfare</td>
</tr>
<tr>
<td>- immune/production indicators of welfare</td>
</tr>
<tr>
<td>Understand the role of science in examining specific welfare issues</td>
</tr>
<tr>
<td>- transport, slaughter</td>
</tr>
<tr>
<td>Possess basic knowledge of animal behaviour theory and relate this to welfare</td>
</tr>
<tr>
<td>- learning, motivation, sociality, concept of animal needs</td>
</tr>
<tr>
<td>Understand the concepts of animal sentience and cognition and how these relate to welfare</td>
</tr>
<tr>
<td>Understand the scientific basis of specific welfare insults relating to subjective mental states</td>
</tr>
<tr>
<td>- pain (evolutionary approach), fear, boredom</td>
</tr>
<tr>
<td>Aware of the techniques and goals of animal welfare research and its contribution to legislative change</td>
</tr>
<tr>
<td>Aware of animal experimentation and its role in welfare research</td>
</tr>
<tr>
<td>Some knowledge of current welfare research activity *</td>
</tr>
<tr>
<td>Describe specific examples of welfare problems for each animal group *</td>
</tr>
<tr>
<td>Knowledge of historical approaches to animal welfare *</td>
</tr>
</tbody>
</table>
## Learning outcomes for Animal Welfare Ethics

1. Identify common ethical dilemmas seen in practice
2. Explain and use a simple ethical decision making process
3. Make and defend an ethical judgement on common ethical dilemmas seen in practice
4. Comment on controversial ethical issues concerning animal use using a rational argument
5. Apply the following frameworks, Five Freedoms, Four principles and 3 R’s
6. Identify and analyse the views of relevant stakeholders
7. Explain the interaction between science, legislation and ethics
8. Explain the difference between professional etiquette and ethics
9. Describe the current ethical issues concerning the role of animals in society *
10. Aware of the principle ethical theories : utilitarian, deontology, animal rights, virtue ethics *
11. Apply and use an ethical matrix *
12. Explain the moral basis of informed consent *
## Learning outcomes for Animal Welfare Legislation / Standards

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Possess basic knowledge of legislation relating to animal welfare:</strong></td>
</tr>
<tr>
<td><strong>Possess awareness of legislation relating to animal welfare in Zoos, Circuses, Wild Animals, Riding Establishments, Pet Shops, Dog Breeding Establishments</strong></td>
</tr>
<tr>
<td><strong>Understand the animal welfare obligations of the veterinary surgeon as defined in the RCVS Guide to Professional Conduct</strong></td>
</tr>
<tr>
<td>Welfare Enforcement: Roles of Individual Veterinary Surgeon, State Veterinary Service, Local Authorities &amp; welfare charities</td>
</tr>
<tr>
<td><strong>Understand the role of Veterinary Surgeon as an expert witness</strong>: technical expertise, evidence collection and methodologies recording of evidence</td>
</tr>
<tr>
<td><strong>Possess understanding of DEFRA Welfare Codes and their use</strong></td>
</tr>
<tr>
<td><strong>Farm Assurance Schemes: Understand the principles, veterinary surgeons roles in the application of standards and approval/certification</strong></td>
</tr>
</tbody>
</table>
WSPA Concepts in Animal Welfare

- Teaching resource
- Veterinary schools
- 30 presentations
- Assessment material
- Projects & discussions
- Available from WSPA
- www.wspa.org.uk
WSPA Concepts in Animal Welfare

Animal Welfare Science

Animal welfare introduction
Welfare assessment & Five Freedoms
Physiological indicators of welfare (1)
Physiological indicators of welfare (2)
Disease and production indicators of welfare
Behavioural indicators of welfare (1)
Behavioural indicators of welfare (2)
Group assessment and management of welfare
Food and animal welfare

Applications of Welfare Science

Livestock: Welfare assessment and issues (1)
Livestock: Welfare assessment and issues (2)
Livestock: Transport & markets
Livestock: Slaughter
Fish welfare
Companion Animals: Population control
Companion Animals: Wider considerations
Euthanasia
Working animals
Animals in research, testing and education
Wild animal welfare & management
Commercial exploitation of wildlife
Animals used in entertainment
Environmental enrichment

Ethics

Introduction to animal welfare ethics
Interaction with other ethical concerns
Influence of the marketplace on animal welfare

Animals & Society

Animal protection legislation (1)
Animal protection legislation (2)
Human-animal interactions
The role of the veterinary profession
Humane education
Animal welfare organisations
Religion and animal welfare
War and animal welfare
Disaster management
This module will enable you to

- Distinguish between animal welfare science, ethics and law
- Become familiar with animal needs
  - the 3 different aspects (physical, mental, natural)
  - the relationships of these different aspects
- the role of society in animal protection

Example: sows in stalls

- Naturalness
  - Restricted oral and social behaviour

Module 1: Animal welfare introduction - Short questions

1. What is the difference between science, ethics and law?
   - Welfare science considers the effect on the animal from the animal’s point of view
   - Welfare ethics considers human actions towards animals
   - Welfare legislation considers how humans must treat animals.

2. What three concepts of animal welfare are often used in animal welfare definitions?
   - Mental (feelings)
   - Physical (fitness)
   - Naturalness (telos)

3. How does each concept of the Five Freedoms affect each of the three concepts described above?
   - Physical: injury, disease
   - Mental: hunger, thirst, discomfort, pain, fear and distress
   - Natural: to express normal behaviour.

4. What is a need?
<table>
<thead>
<tr>
<th>Country</th>
<th>Number of vet schools</th>
<th>Exposure to CAW resource</th>
<th>Attendance to CAW workshop</th>
<th>Teaching AW in curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>6</td>
<td>Some</td>
<td>Some</td>
<td>Some</td>
</tr>
<tr>
<td>Cambodia</td>
<td>1</td>
<td>All</td>
<td>All</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>84 *</td>
<td>Some</td>
<td>Some</td>
<td>Some</td>
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<tr>
<td>India</td>
<td>39</td>
<td>All</td>
<td>Some</td>
<td>All</td>
</tr>
<tr>
<td>Indonesia</td>
<td>8</td>
<td>All</td>
<td>All</td>
<td>Soon all</td>
</tr>
<tr>
<td>Japan</td>
<td>16</td>
<td>All</td>
<td>All</td>
<td>Soon all</td>
</tr>
<tr>
<td>Laos</td>
<td>1</td>
<td>All</td>
<td>All</td>
<td>Soon all</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1</td>
<td>All</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Mongolia</td>
<td>1</td>
<td>All</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1</td>
<td>All</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Nepal</td>
<td>2</td>
<td>All</td>
<td>All</td>
<td>Soon all</td>
</tr>
<tr>
<td>Pakistan</td>
<td>4</td>
<td>Some</td>
<td>Some</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
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<td>All</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>South Korea</td>
<td>10</td>
<td>Some</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1</td>
<td>All</td>
<td>All</td>
<td>Soon all</td>
</tr>
<tr>
<td>Taiwan</td>
<td>4</td>
<td>All</td>
<td>All</td>
<td>Some</td>
</tr>
<tr>
<td>Thailand</td>
<td>8</td>
<td>All</td>
<td>All</td>
<td>Some</td>
</tr>
<tr>
<td>Vietnam</td>
<td>7</td>
<td>All</td>
<td>All</td>
<td>Some</td>
</tr>
</tbody>
</table>
Progress: Long & winding road

- No consideration of animal interests
  - Full consideration of animal interests

- Anthropomorphism is always bad
  - Critical anthropomorphism is useful
Progress: Content & method

- Legislation / policy
  - Science
  - Ethics
- Didactic / Lecture
  - Small group teaching
  - “Experiential “ learning
Experiential learning : year 1 / 2

- Can we improve the value from Extra-mural placements cattle, sheep, and horse units?
- Aim is to improve
  - animal observation
  - communication with farmers &
  - Reflective analysis
Progress: AW concepts

- Physical
- Mental
- Natural
- Avoidance of harm (Five Freedoms)
- Promotion of a “good life”
Five Freedoms: complete ethical framework?

- Freedom from **hunger & thirst** by ready access to fresh water and a diet to maintain full health and vigour.
- Freedom from **discomfort** by providing an appropriate environment including shelter and a comfortable resting area.
- Freedom from **pain, injury and disease** by prevention or rapid diagnosis and treatment.
- Freedom to **express normal behaviour** by providing sufficient space, proper facilities and company of the animal’s own kind.
- Freedom from **fear and distress** by ensuring conditions and treatment which avoid mental suffering.
What term best reflects your understanding of the term animal welfare?

![Bar chart showing the percentage of respondents who choose mental, physical, natural, and 'don't know' options for understanding animal welfare among Vets and Students.]
Our proposal is that an animal’s quality of life can be classified as:
- a life not worth living,
- a life worth living and
- a good life...

### Quality (Qualities) of Life

- **Hunger & Thirst**
- **Fear & Distress**
- **Pain, Injury & Disease**
- **Discomfort**
- **Restrict behaviour**

- **Pleasures**
- **Happy**
- **Play**
- **Exhibit normal behaviour**
### Quality of life

<table>
<thead>
<tr>
<th>A good life</th>
<th>A life worth living</th>
<th>A life not worth living</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good quality of life</td>
<td>Socially acceptable quality of life</td>
<td>Unacceptable quality of life</td>
</tr>
<tr>
<td>Clearly beyond minimum legal standard</td>
<td>Proposed minimum legal standard in Britain</td>
<td>Avoidance of unnecessary suffering</td>
</tr>
<tr>
<td>Good substantially outweighs poor welfare</td>
<td>Good outweighs poor welfare</td>
<td>Poor to bad welfare dominates</td>
</tr>
<tr>
<td>All vital needs, all mental needs and most wants</td>
<td>All vital needs, most mental needs and some wants</td>
<td>Vital needs only, few or no mental needs or wants</td>
</tr>
<tr>
<td>Completely met</td>
<td>Mostly met</td>
<td>Few or none met</td>
</tr>
</tbody>
</table>
Positive welfare: providing a good life

• 176 ..... An opportunity that would be considered to contribute to a good life would be a resource that an animal does not need for biological fitness but is valued (i.e. used) by the animal. Such an opportunity could also cause harm and this would need to be minimised so as not to outweigh the benefits of the opportunity.

• Provided that all other conditions were equal, then if an animal was to be provided with – and took - such opportunities, then it could be said to have had a better life.
Progress: Drivers for AW Education

- Policymaker (national & international OIE)
  - Student expectations
  - Trade requirements

“I have some doubt that new graduates are sufficiently prepared to handle the difficult judgments and dilemmas that animal welfare issues can pose.” - Lowe 2009

“Welfare and ethics often seem like an “add-on” that should have more time explicitly devoted to it.” - Final year student 2009
Finest

6 PORK SAUSAGES

Fresh prime cuts of British pork have been coarsely chopped and carefully seasoned to create a delicious sausage with a hint of pepper.

<table>
<thead>
<tr>
<th>Suitable for</th>
<th>Display Until</th>
<th>Use By</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>home freezing</td>
<td>03 OCT</td>
<td>04 OCT</td>
<td>£1.99</td>
</tr>
</tbody>
</table>

454g (1 lb)
Welfare Quality®
Assessment protocol for pigs

Welfare Quality®
Assessment protocol for cattle

Welfare Quality®
Assessment protocol for poultry
Trade requirements: Vets need to understand & assess critical welfare requirements

Tail docking *

The procedure may only be carried out where measures to improve environmental conditions or management systems have first been taken to prevent tail-biting, but there is still evidence to show that injury to pigs’ tails by biting has occurred.

Environmental enrichment **

To enable proper investigation and manipulation activities, all pigs must have permanent access to a sufficient quantity of material such as straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such which does not adversely affect the health of the animals.

Record present if any lesion is seen on the tail.
Include all lesions (swelling, fresh blood or scabs visible). Sometimes a good indication is a slightly swollen, hanging tail.

Look at the animal from behind. Investigate carefully if the tail is hanging, swollen or shorter than normal. This could be done from outside the pen if visibility is adequate.
**Oral behaviour - 95% Confidence Interval & Mean**

**Sample: 10 pens**

**Sample: 25 pens**

**A / A+B**

**A**: investigating a manipulable material or toy.
Include if the snout/mouth is manipulating straw, hay, wood[chip], sawdust, mushroom compost, peat (or other material that enables proper investigation and manipulation) OR in contact with an object/toy such as a chain or ball.

**B**: manipulating pen fittings or muck
Include if the snout/mouth is in contact with muck or the floor, fixtures or fittings of the pen. Pay particular attention at feeders or drinkers to discriminate between manipulation and eating/drinking.
Oral behaviour - 95% Confidence Interval & Mean

```
A / A+B
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Include if the snout/mouth is in contact with muck or the floor, fixtures or fittings of the pen. Pay particular attention at feeders or drinkers to discriminate between manipulation and eating/drinking.
```
Progress: Goal of AW education?

- Knowledge & understanding on AW issues
  - Communicate with AW issue
    - Influence human behaviour?
- Human behaviour towards animals
  - Current research theme
  - Future teaching priority?
Lameness: many different conditions & many different risk factors

Digital Dermatitis

Claw horn lesions / Sole Ulcer

Foul (Super foul)

White line disease
Knowledge of disease process

Husbandry Advisory Tool

Knowledge of husbandry risks

Farm specific diagnosis

Suggested control measures with priority: Must, should, could

Farm specific risks

Lameness in dairy cattle - DEFRA
Tail biting in pigs – BPEX
Injurious pecking in hens – Tubney Charitable Trust
Validation of Lameness Control Plan

- Increase hazards
- Increase lameness

Lameness prevalence vs. Total lameness risk score for all categories of hazard

R Sq Linear = 0.356

Nick Bell, Matt Bell, John Webster, Becky Whay, Toby Knowles, David Main

DEFRA
Lameness intervention study conclusions

- **Conclusions:**
  - Lameness control plan contained the “correct advice”
  - Increased hazard – increased lameness
    - www.cattle-lameness.org.uk
  - But providing advice had minimal effect
  - How do we motivate farmers to make husbandry changes?
Motivations for lameness

- Pride in a healthy herd
- Feeling sorry for lame cows
- Feeling guilty about lame cows
- Lame cows lose money
- Good public image
- Farm accreditation at risk
- Desire to be better than other farmers

Working towards a reduction in cattle lameness: 2. Understanding dairy farmers’ motivations  Leach et al
Co-ordinated implementation strategy

Healthy Feet Project
Working together to reduce cattle lameness
Reducing lameness in dairy cattle by implementing existing knowledge.

- **Benefits and Barriers**
  - Knowing the benefits and barriers underpins the approach.

- **Facilitation**
  - People are more likely to change their behaviour if they think it is their own idea.

- **Norms**
  - People are more likely to change behaviour if they know others have done the same.

- **Commitment**
  - Commitment is key to sustaining behaviour change

- **Prompts**
  - Prompts act to remind people of agreed activities and help sustain the new behaviour.
Foot Hygiene

Walking Surfaces & Cow Flow

Foot-bathing

Cleaner floors & cleaner feet

Bug-busting the easy way

Standing / Lying Time

Walking Surfaces & Cow Flow

Sure footed cows on the moove.
Look ........ & look again..........& think
Animal welfare education

....questions that need asking

• Think cow:
  
  ..........what are **all** its needs / wants ?

• Think farmer:
  
  ..............how do we motivate change ?

• Think big:
  
  ............how can politics make a difference ?