

New Trends in Animal Welfare Science, values and education



John Webster
University of Bristol

AFAC Conference, April 2008

What is animal welfare?

- **What is it to them?**
 - What is meant by welfare, wellbeing, sentience, stress, suffering?
- **What is it to us?**
 - Ethics of animal welfare
- **What should we do about it?**
 - Awareness, education, promotion

What are?

- **Animal welfare and wellbeing**
- Sentience, stress and suffering
- Animal welfare education: science & values
- The role of the veterinarian
- Animal welfare assessment, quality assurance & promotion of added value

What is animal welfare?

-questions posed by 'welfare scientists'

- Is the animal living a normal life?
- Is the animal fit and healthy?
- How does it feel?

The alternative and insufficient questions posed by 'welfare scientists'

- Is the animal living a normal life?
 - Ethology, sociobiology
- Is the animal fit and healthy?
 - Veterinary science
- How does it feel?
 - Psychology, motivation analysis

So what then is animal welfare?

- It is the physical and mental state of a sentient animal as it seeks to cope with environmental challenge
- It thus covers the full spectrum
 - satisfaction to suffering

“Well-being”

‘Fit and happy’

[wherever they may be]

- sustained physical and mental health
 - absence of disease
 - absence of suffering (e.g.pain, fear, exhaustion)
- feeling good (‘happy’)
 - comfort, companionship, security

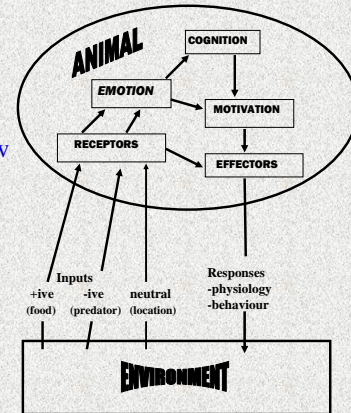
What are?

- Animal welfare and wellbeing
- **Sentience, stress and suffering**
- Animal welfare education:science & values
- The role of the veterinarian
- Animal welfare assessment, quality assurance & promotion of added value

What is animal sentience?

- **‘Feelings that matter’**
 - Perception of environmental stimuli
 - Interpretation: emotion & cognition
 - Motivation:
 - a measure of how much it matters
 - Measured response
 - Assess effectiveness of outcome
 - Modify mood and understanding in light of experience

A Sentient View of the World



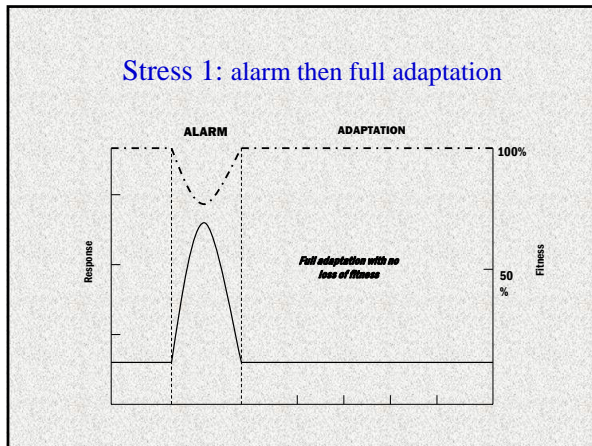
Animal Sentience

- **‘Feelings that matter’**
 - Perception of environmental stimuli
 - Interpretation: emotion & cognition
 - Motivation:
 - a measure of how much it matters
 - Measured response
 - Assess effectiveness of outcome
 - Modify mood and understanding in light of experience

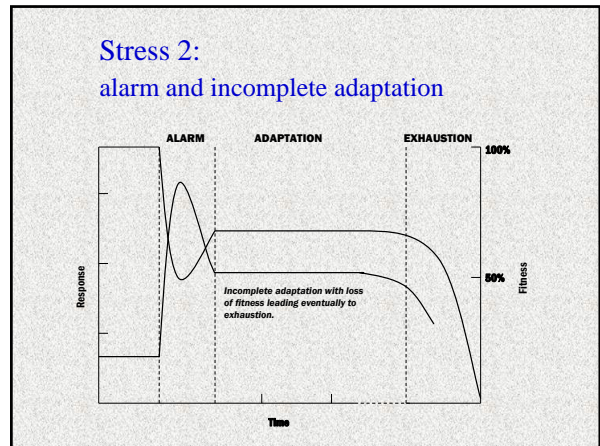
Stress, adaptation & suffering



Stress 1: alarm then full adaptation



Stress 2: alarm and incomplete adaptation



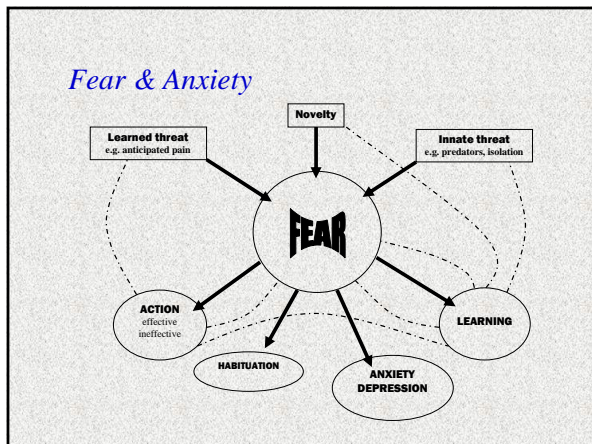
Stress and suffering

- Suffering occurs when an animal cannot cope (or has difficulty in coping) with unpleasant feelings:
 - because the sensations are too intense, too complex or too prolonged
 - because it is unable to respond in a way that will effectively improve how it feels

Suffering: failure to cope

- Exhaustion
- Injury and chronic pain
- Malaise -feeling ill
- Chronic anxiety/apathy

Fear & Anxiety



Pain

'How do we know it matters?'

- Immediate reaction
 - alarm, escape- *No*
- Modified behaviour
 - rest and locomotor changes- *maybe not*
 - aversion/learned avoidance - *possibly*
 - reduced positive behaviour (e.g. grooming) - *probably*
- Altered Mood
 - apathy, reduced appetite - *probably*
- Response to analgesics
 - externally administered - *not necessarily*
 - self selected - *Yes*

Animal Sentience

Why does it matter to us?

- Suffering and pleasure are defined by the capacity to feel, not the capacity to think
 - chimpanzee = horse = rat
- Sentient animals learn by experience as they attempt to cope with life. If they fail, they suffer
 - suffering is a learnt experience

Relief of suffering

Symptom	Medical	Nursing
Fever	Antipyretics	Thermal comfort
Pain	Analgesics NSAIDs	Physical comfort Rest
Inappetence	Tonics	'Treats'
Fluid loss	i/v Rehydration	Oral rehydration
Mental distress	Unnecessary?	Reduce social stress TLC

What are?

- Animal welfare and wellbeing
- Sentience, stress and suffering
- **Animal welfare education: science & values**
- The role of the veterinarian
- Animal welfare assessment, quality assurance & promotion of added value

Animal Welfare

"What can we do?"

- Awareness
- Understanding
- Action
 - *"It is comfortingly easy to care about animals: to care for them requires skill, patience and humility"*

Lack of awareness



Education:

A Curriculum for Animal Welfare

- Principles of husbandry and welfare
- Animal welfare science
- Animal welfare Law and Regulations
- Animal welfare in clinical practice

Principles of husbandry and welfare

- Definitions of welfare, sentience and suffering
- The “Five Freedoms”
- Good husbandry: management of farm and companion animals
- Ethics of animal welfare

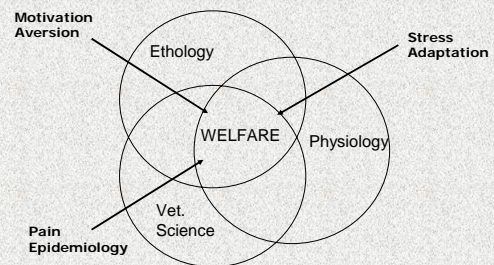
Freedoms and Provisions

- **Freedom from hunger and thirst:**
 - access to fresh water and a diet to maintain full health and vigour
- **Freedom from discomfort:**
 - a suitable environment: .e.g. shelter and a comfortable resting place
- **Freedom from pain, injury and disease:**
 - prevention and/or rapid diagnosis and treatment
- **Freedom from fear and stress:**
 - ensure conditions which avoid mental suffering
- **Freedom to express normal behaviour:**
 - ensure sufficient space, proper facilities and social contact

Values: The Ethics of Animal Welfare

	Wellbeing	Autonomy	Justice
Human society	Wholesome, cheap food	Freedom of choice	Welfare legislation
Producers	A fair living	Free competition	Good husbandry
Farm animals	Wellbeing at all times	Environmental enrichment	“A life worth living”
Living environment	Conservation Sustainability	Biodiversity	Respect for envt. & stewards

What is welfare science?



Animal Welfare Science (y2)

- Sentience and suffering
- Physiology of pain, stress and adaptation
- Ethology
 - normal behaviour in relation to environment
- Psychology
 - perception, emotion, cognition and motivation
- Abnormal behaviour
 - causes and management of anxiety, stereotypes etc.
- The human-animal bond.

Animal Welfare in Clinical Practice

- Practical assessment of husbandry and welfare
 - animal-based welfare monitoring
- Recognition of animal abuse
 - unnecessary suffering
- Herd health and welfare
 - on-farm strategic planning
 - welfare-based quality assurance

What are?

- Animal welfare and wellbeing
- Sentience, stress and suffering
- Animal welfare education: science & values
- **The role of the veterinarian**
- Animal welfare assessment and quality assurance

Welfare Science is part of Veterinary Science and vice versa.

-an understanding of animal welfare state (as perceived by the animal) is an essential prerequisite for proper professional veterinary care.

Why do vets. need Welfare Science?

- because animals need vets. who understand not only what keeps them healthy but also how they feel as they seek to meet their physiological and behavioural needs.

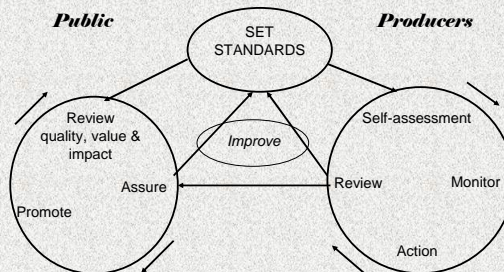
“Our Constant Endeavour” The Duty of the Profession

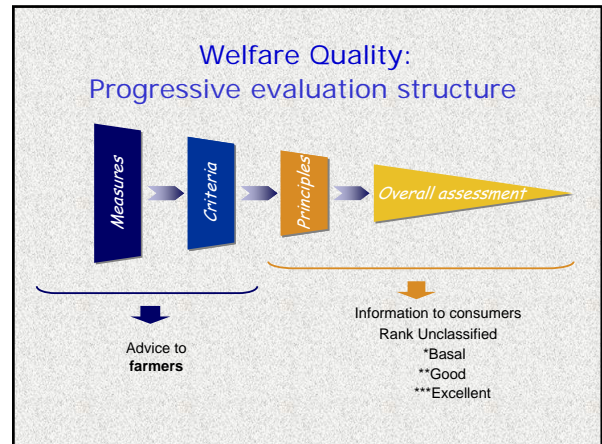
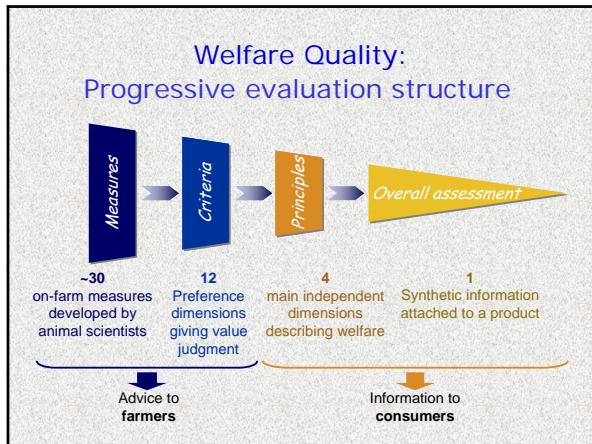
- Professional ability
 - to assess welfare and recognise suffering in a sentient animal or population of animals
 - to identify and remedy failures of provision
- Humanity
 - to respect the needs of animals and their owners
- Courage
 - to act according to that which is right, not simply that which is regulated

What are?

- Animal welfare and wellbeing
- Sentience, stress and suffering
- Animal welfare education: science & values
- The role of the veterinarian
- **Animal welfare assessment, quality assurance & promotion of added value**

Welfare-based Quality Assurance “The Virtuous Bicycle”





“The Virtuous Bicycle”

Part 2: Animal welfare as an element of added value

- ‘Better food’ defined by belief in:
 - taste and texture
 - food safety
 - production methods (including animal welfare)
- ‘Trust’ achieved by:
 - proven (local) origin
 - proven organic production
 - proven high welfare
- Promotion achieved by:
 - Labelling within store (e.g. organic, welfare stars)
 - Brand image of retailer

Increasing consumer demand: Obstacles

- Most consumers (world-wide) haven’t thought about FAW at all
- Most consumers in the affluent, industrialised world have no real knowledge of, (or sympathy with) farming systems
- Many “educated” consumers express a desire for improved FAW but few convert this desire into a demand when shopping for food

Consumer trends, U.K.



Eggs
Free-range >50% Market



Milk products
organic <10% Market

Increasing consumer demand: The 5%:95% rule?

- Promotion of QA for FAW as a positive element of added value (5%)
 - e.g. Freedom Foods, Waitrose (U.K.)
- Promotion of QA for FAW as a defence against accusations of improper practice (95%)
 - Free range eggs (no cruel cages)
 - Higher welfare = higher price contracts for UK dairy farmers (Waitrose, Tesco - don’t be mean to the farmers)

– **“How we came to love McDonalds”**

Added Value from improved welfare:
Deliverables from the virtuous bicycle

- For the animals
 - improved productivity *and* welfare
- For the consumers
 - greater trust
 - greater satisfaction (“feel good” factor)
- For the farmers
 - more pride
 - survival!